

COUNCIL COMMUNICATION

<p>DATE: 9/21/09</p>	<p>SUBJECT: FINAL READING OF ORDINANCE 2009-O-167 AMENDING CITY OF LAREDO CODE OF ORDINANCE, CHAPTER 31, ARTICLE III, DIVISION 4, WATER CONSERVATION AS FOLLOWS:</p> <ul style="list-style-type: none">▪ REDUCING THE GALLONS PER CAPITA PER DAY (GPCD) CONSUMPTION BY 20% FROM A FOUR-YEAR AVERAGE OF 190 GPCD TO 150 GPCD BY THE YEAR 2019▪ REQUIRING THAT NO PERSON SHALL BE ALLOWED TO OPEN OR CLOSE A FIRE HYDRANT OR FIRE HYDRANT METER WITHOUT HAVING A TRAINING AND CERTIFICATE FROM THE UTILITIES DEPARTMENT FOR HAVING COMPLETED A MANDATORY TRAINING WITH THE EXCEPTION OF THE CITY OF LAREDO FIRE DEPARTMENT WHEN CONDUCTING TRAININGS AT THE FIRE TRAINING FACILITY LOCATED AT PINTO VALLE; MANDATORY TRAINING WILL BE FREE OF CHARGE;▪ ALLOWING NO MORE THAN TWO (2) WRITTEN WARNINGS BEFORE THE FIRST CITATION CAN BE ISSUED FOR VIOLATIONS OF THIS ORDINANCE;▪ INCREASING PENALTY FROM A RANGE OF \$20.00-\$100.00 TO A FLAT \$500.00 PER VIOLATION PER DAY, WITH 50% OF EACH FINE COLLECTED TO BE DEPOSITED IN A WATER CONSERVATION FUND TO BE USED ONLY FOR PROGRAMS RELATED TO WATER CONSERVATION;▪ ESTABLISHING FEES FOR WASTING WATER \$5.00 FOR THE 1ST CITATION; \$10.00-2ND CITATION; \$20.00-3RD CITATION; \$40.00-4TH CITATION; \$80.00-5TH CITATION; 6TH CITATION \$320.00 WITH EACH ADDITIONAL FINE INCREASING IN INCREMENTS OF \$160.00;▪ RECOMMENDING XERISCAPE FOR ALL NEW CONSTRUCTION INCLUDING PUBLIC FACILITIES;▪ PROHIBITING TURF GRASS IN PARKWAYS, NARROW STRIPS OF LAND, MEDIANS, SLOPED AREAS (EXCEPT FOR EROSION CONTROL), AND IN ENTRANCES WITHIN NEW RESIDENTIAL OR COMMERCIAL SITES, APPLICABLE TO CONSTRUCTION BEGUN AFTER EFECTIVE DATE OF THIS ORDINANCE;▪ ALLOWING OUTDOOR WATER USE ANY DAY AT ANY TIME, UNLESS A MORE STRINGENT DROUGHT TRIGGERING STAGE FROM THE DROUGHT CONTINGENCY ORDINANCE IS DECLARED;▪ EXPANDING THE DAYS FOR WASHING VEHICLES TO INCLUDE SATURDAYS AND SUNDAYS AT ANY TIME USING A BUCKET, HAND HELD HOSE WITH A POSITIVE SHUT OFF NOZZLE, AND A HOSE BIBB VACUUM BREAKER (CHECK VALVE) CONNECTED TO FAUCET;▪ ALLOWING THE WASHING OF HARD SURFACED AREAS BY USING A HIGH PRESSURE WASHER ONLY;▪ VEHICLE WASHING FUNDRAISERS FOR SCHOOLS, NON-PROFIT OR CHARITABLE ORGANIZATIONS WILL REQUIRE AN APPLICATION WITH THE UTILITIES DIRECTOR AND A \$10.00 PERMIT FEE;▪ NEW SWIMMING POOLS, SPLASH PARKS AND ALL OTHER WATER PARKS SHALL BE EQUIPPED WITH FILTRATION, PUMPING AND RECIRCULATION SYSTEMS; <p>PROVIDING FOR PUBLICATION, SEVERABILITY AND AN EFFECTIVE DATE (AS AMENDED).</p>
<p>INITIATED BY: Jesus M. Olivares Assistant City Manager</p>	<p>STAFF SOURCE: Tomas M. Rodriguez Jr., P.E. Utilities Director</p>

PREVIOUS COUNCIL ACTION:

March 26, 2007: Request by Council Member Mike Garza (co-sponsored by Council Member Dr. Michael Landeck) for better implementation of water conservation plan with possible measurable time related to water reduction goals.

On September 8, 2009, the City Council held a public hearing and approved an introductory ordinance.

On September 15, 2009, the City Council held a public hearing at a Special City Council Meeting and approved the proposed ordinance **(AS AMENDED)**.

BACKGROUND:

During the original development of the Water Conservation & Drought Contingency Plan, there were several town hall meetings held on August 9-12, 1999 and a public hearing on August 16, 1999. A combined document was adopted through an ordinance and has since been in effect with minimal changes.

In order to improve the implementation of the existing plan and provide improved ways of reducing water consumption levels, the Water Conservation Committee, which was a sub-Citizens Environmental Advisory Committee, met many times to discuss and develop the proposed amendment. From October 2007, the Blue Ribbon Committee, previously referred to as the Water Conservation Committee, held several meetings with local civic leaders to obtain feedback and produce an amendment suitable for all parties. Meetings were held with staff from local builders, hotels, motels, restaurants, educational institutions, nurseries, gardening centers, hardware stores, and other city departments. In addition, this proposed amendment was reviewed by the Parks & Leisure Board members.

FINANCIAL IMPACT:

Water conservation will decrease the projected revenues by approximately 10%. Any fees associated with this ordinance should be deposited into a water conservation fund account.

COMMITTEE RECOMMENDATION:

Approved by Operations Committee on 8/31/09 and no motion made by Finance Committee on 9/01/09

STAFF RECOMMENDATION:

Approval of Ordinance

AN ORDINANCE 2009-O-167

AMENDING CITY OF LAREDO CODE OF ORDINANCE, CHAPTER 31, ARTICLE III, DIVISION 4, WATER CONSERVATION AS FOLLOWS:

- **REDUCING THE GALLONS PER CAPITA PER DAY (GPCD) CONSUMPTION BY 20% FROM A FOUR-YEAR AVERAGE OF 190 GPCD TO 150 GPCD BY THE YEAR 2019**
- **REQUIRING THAT NO PERSON SHALL BE ALLOWED TO OPEN OR CLOSE A FIRE HYDRANT OF FIRE HYDRANT METER WITHOUT HAVING A TRAINING AND CERTIFICATE FROM THE UTILITIES DEPARTMENT FOR HAVING COMPLETED A MANDATORY TRAINING WITH THE EXCEPTION OF THE CITY OF LAREDO FIRE DEPARTMENT WHEN CONDUCTING TRAININGS AT THE FIRE TRAINING FACILITY LOCATED AT PINTO VALLE; MANDATORY TRAINING WILL BE FREE OF CHARGE;**
- **ALLOWING NO MORE THAN TWO (2) WRITTEN WARNINGS BEFORE THE FIRST CITATION CAN BE ISSUED FOR VIOLATIONS OF THIS ORDINANCE;**
- **INCREASING PENALTY FROM A RANGE OF \$20.00-\$100.00 TO A FLAT \$500.00 PER VIOLATION PER DAY, WITH 50% OF EACH FINE COLLECTED TO BE DEPOSITED IN A WATER CONSERVATION FUND TO BE USED ONLY FOR PROGRAMS RELATED TO WATER CONSERVATION;**
- **ESTABLISHING FEES FOR WASTING WATER \$5.00 FOR THE 1ST CITATION; \$10.00-2ND CITATION; \$20.00-3RD CITATION; \$40.00-4TH CITATION; \$80.00-5TH CITATION; 6TH CITATION \$320.00 WITH EACH ADDITIONAL FINE INCREASING IN INCREMENTS OF \$160.00;**
- **RECOMMENDING XERISCAPE FOR ALL NEW CONSTRUCTION INCLUDING PUBLIC FACILITIES;**
- **PROHIBITING TURF GRASS IN PARKWAYS, NARROW STRIPS OF LAND, MEDIANS, SLOPED AREAS (EXCEPT FOR EROSION CONTROL), AND IN ENTRANCES WITHIN NEW RESIDENTIAL OR COMMERCIAL SITES, APPLICABLE TO CONSTRUCTION BEGUN AFTER EFFECTIVE DATE OF THIS ORDINANCE;**
- **ALLOWING OUTDOOR WATER USE ANY DAY AT ANY TIME, UNLESS A MORE STRINGENT DROUGHT TRIGGERING STAGE FROM THE DROUGHT CONTINGENCY ORDINANCE IS DECLARED;**
- **EXPANDING THE DAYS FOR WASHING VEHICLES TO INCLUDE SATURDAYS AND SUNDAYS AT ANY TIME USING A BUCKET, HAND HELD HOSE WITH A POSITIVE SHUT OFF NOZZLE, AND A HOSE BIBB VACUUM BREAKER (CHECK VALVE) CONNECTED TO THE FAUCET;**
- **ALLOWING THE WASHING OF HARD SURFACED AREAS BY USING A HIGH PRESSURE WASHER ONLY;**
- **VEHICLE WASHING FUNDRAISERS FOR SCHOOLS, NON-PROFIT OR CHARITABLE ORGANIZATIONS WILL REQUIRE AN APPLICATION WITH THE UTILITIES DIRECTOR AND A \$10.00 PERMIT FEE FOR EACH EVENT;**
- **NEW SWIMMING POOLS, SPLASH PARKS AND ALL OTHER WATER PARKS SHALL BE EQUIPPED WITH FILTRATION, PUMPING AND RECIRCULATION SYSTEMS;**

PROVIDING FOR PUBLICATION, SEVERABILITY AND AN EFFECTIVE DATE (AS AMENDED).

WHEREAS, the City of Laredo is committed to protect the Rio Grande River as a unique natural resource and a primary source of water; and

WHEREAS, the welfare of the citizens of Laredo is dependent upon the quality and quantity of the water from the Rio Grande River; and

WHEREAS, Section 11.1271 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require the holder of an existing permit, certified filing, or certificate of adjudication for the appropriation of surface water in the amount of 1,000 acre-feet per year or more for municipal use to prepare a water conservation and drought contingency plan; and

WHEREAS, the Texas Water Development Board requires an update to all municipal water conservation ordinances every five years in order to qualify for further funding; and

WHEREAS, the Texas Administrative Code, 30 TAC §288.2, titled “Water Conservation Plans for Municipal Uses by Public Water Suppliers,” outlines the criteria that must be included in a city’s water conservation plan and this amendments keeps the City of Laredo in compliance with state laws.

WHEREAS, the City of Laredo understands that the demand for water will significantly increase during the foreseeable future due to increase population; and

WHEREAS, the City of Laredo is committed to maximize its water resources and recognizes that there is limited water treatment and storage capacity and limited availability of Rio Grande River water rights; and

WHEREAS, the City of Laredo wants to promote a culture among its citizens that values efficient water utilization and conservation of our water resources; and

WHEREAS, the City of Laredo Utilities Department’s Water Master Plan and the Region M Plan include advanced water conservation strategies when projecting water demand for Laredo’s future water needs; and

WHEREAS, to achieve and sustain an overall goal of 150 gallons per capita per day at all times, different water conservation strategies become necessary; and

WHEREAS, the City of Laredo wants to develop a year-round water conservation ordinance that would result in a reduction of water use per capita without significantly impacting the quality of life for Laredo citizens; and

WHEREAS, the City of Laredo Utilities Department has drafted language that would increase water conservation standards with significant input from the Citizens Environmental Advisory Committee, the Lamar Bruni Vergara Environmental Science Center, the Rio Grande International Study Center, and the general public; and

WHEREAS, the recommended provisions address a variety of water uses and center around specific methods, equipment, and behaviors that will result in significant water savings upon implementation; and

WHEREAS, the City of Laredo Utilities Department has projected that the implementation of a year-round water conservation ordinance will result in significant annual water savings including: 30% from irrigation audits, 10% from dining and lodging facility provisions, 5% from each 400 ton air conditioning unit collecting condensate, 10% from residential landscape provisions, and 5% from vehicle wash facilities provisions; and

WHEREAS, the City of Laredo is required by the Texas Water Development Board and the Texas Commission on Environmental Quality to update the current Water Conservation and Drought Contingency Plans to help reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, and increase the recycling and reuse of water for the ultimate purpose of making a water supply available for future or alternative uses.

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

Section 1: That the City of Laredo's Water Conservation and Drought Contingency Plans attached hereto as Exhibit "A" and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City.

Section 2: That all ordinances that are in conflict with the provisions of this ordinance be, and the same are hereby, repealed and all other ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.


Section 3: *Severability:* Should any paragraph, sentence, subdivision, clause, phrase, or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole or any provision thereof, other than the part so declared to be invalid, illegal or unconstitutional.

Section 4: *Effective Date:* This Ordinance shall become effective not less than sixty (60) days from the date of the public hearing on this Ordinance, in accordance with the City Charter.

Section 5: *Publication:* After its passage by City Council, this Ordinance shall be published one (1) time in accordance with the provisions set forth in Section 2.09 (D) of the City Charter.


PASSED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR

ON THE 21st DAY OF September, 2009.



Raul G. Salinas
Mayor

ATTEST:



Gustavo Guevara, Jr.
City Secretary



APPROVED AS TO FORM:

Raul Casso
City Attorney

By: 

Valeria M. Acevedo
Assistant City Attorney

EXHIBIT “A”

DIVISION 4. WATER CONSERVATION AND DROUGHT CONTINGENCY PLANS

Sec. 31-141.15. Purpose.

- (a) To promote the protection and proper utilization of Laredo’s water resources.
- (b) To promote water conservation and efficient water utilization through proper landscape requirements, plant selection, correct installation and use of irrigation systems, water harvesting, and public education.
- (c) To enhance the aesthetics of the City by promoting the use of water-thrifty plants suitable to Laredo’s climate.
- (d) To protect the quality of Laredo’s water resources and reduce the use of excessive amounts of fertilizers and pesticides by promoting the use of native plants in landscapes.
- (e) To reduce the volume of drainage and the cost associated with its processing by promoting and facilitating the acquisition of water efficient technologies.
- (f) To decrease the cost incurred by the City of Laredo Utilities Department pumping water to meet consumption demands.
- (g) To reduce water consumption in cooling units and promote the utilization of the condensate for irrigation purposes.
- (h) To provide overall water conservation strategies for customers who utilize water that is provided by the City of Laredo Utilities Department, which excludes water well owners, water rights owners, and effluent users as described on the Exempted Parties Section.

Sec. 31-141.16. Interpretation.

- (a) The provisions of this ordinance shall be interpreted and applied as the minimum requirements for water conservation in the City and shall control over all other landscape and water management requirements in any other ordinance in the City Code of Ordinances, if applicable.
- (b) This ordinance is not intended to interfere with, abrogate or annul any restrictive covenants or other agreements between individual parties. When there is a conflict between the requirements of this ordinance and any restrictive covenants, agreements or other requirements imposed on the property, the more stringent requirement shall apply.
- (c) Where any provision of federal or state law conflicts with any provision of this ordinance, the most stringent provision shall apply unless otherwise regulated by law.
- (d) The provisions of this ordinance shall not be interpreted as part of or in lieu of the City’s Drought Contingency Ordinance.

Sec. 31-141.17. Definitions.

For the purpose of this ordinance only, the following terms, words and/or phrases, and their derivations, shall have the meanings set forth below, except where the context clearly indicates a different meaning:

Approved Low Water Plant List for Laredo means a list of plants, shrubs, and turf that are suitable for Laredo’s climate, soil, and salinity. This list, as may be amended from time to time, was compiled by the Utilities Department and shall be available from the Water Conservation Program or may be downloaded from the City of Laredo webpage at www.ci.laredo.tx.us.

Blowdown Meter means a meter that tracks the amount of water discharged from a Cooling Tower system.

Cooling Tower means an open water recirculation device that uses fans or natural draft to draw or force air to contact and cool water through the evaporative process.

Customer means any person, company, or organization using water supplied by the City. It includes individuals, corporations, partnerships, associations, and all other legal entities.

Dining Facilities and Cafeterias means a place that prepares and serves food and beverages to be consumed on premises.

Effluent means same as gray water (see gray water).

Evergreen means a plant with foliage that persists and remains green year-round.

Grass means (see turf or turf grass).

Gray Water means a domestic or municipal wastewater that has been treated to a quality suitable for a beneficial use in accordance with applicable laws.

Hard Surfaced Areas means areas that are not designed for irrigation purposes but need to be washed using a high pressure washing devices such as driveways, concrete pads, parking lots, or floor patios made of wood or other material.

Hardscape means solid non-organic materials, such as rock, stone, concrete, brick, or other similar type material used to cover ground on areas not intended to support vegetation, but rather complement or enhance it, or to allow access for maintenance or better visualization.

High Efficiency Toilet: A toilet that uses 1.3 gallons of water or less per flush.

High Pressure Washer means a mechanical device that uses high pressure water to remove mold, grime, dust, mud and dirt from surfaces and objects such as buildings, vehicles, and concrete road surfaces. This device consists of a motor which directly drives a water pump, a high pressure hose, and a trigger gun that does not exceed 4.5 gallons of water per minute (gpm).

Hose Bibb Vacuum Breaker means a spring-loaded check valve that seals against an atmospheric outlet when the water supply is turned on. When the supply is turned off, the device vents to atmosphere, thus protecting backsiphonage conditions and preventing possible contamination of water supply.

Hot Water On-Demand System: A plumbing system that incorporates a device that provides hot water on demand, thus preventing water waste by a user while waiting for hot water to reach the faucet.

Impervious Surface means patios, pathways, and other areas where firm footing is desired, constructed in such a way that does not allow water to penetrate the ground. Examples include, but are not limited to: slab patios, sidewalks and driveways, asphalt streets or pavers, stones, or flagstones set with mortar.

Industrial Water User means a customer that uses large amounts of water in the manufacturing and processing of products.

Irrigation System means a system with fixed pipes and emitters or heads that apply water to landscape plants or turf grass including, but not limited to, in-ground and permanent systems.

Irrigation System Analysis means a zone-by zone analysis of an irrigation system.

Landscapable Area means any area of ground that can support vegetative ground cover or other landscaping plants. Sidewalks and other impervious surfaces are not considered landscapable areas.

Landscaping means the improvement of a section of ground by contouring the land and planting any combination of living plants such as trees, shrubs, vines, ground cover or Grass, and placing natural features such as rock, stone, bar chips or shavings.

Large Water User means a customer that uses more than 4,000 gallons per day.

Makeup Meter means a meter that measures the amount of water entering a Cooling Tower system.

Mulch means an organic or inorganic material, which is placed to prevent erosion, lower soil temperature, and maintain soil moisture.

Native Plant means a commercially grown or legally harvested plant hardy to the natural conditions of the South Texas Plains (part of the Tamaulipan Biotic Province), which once established is capable of sustaining growth without supplemental watering.

Permeable Paving means materials such as brick pavers set in sand or other permeable base.

Person means any individual, corporation (including a government corporation), organization, state, or federal governmental subdivision or agency, political subdivision of a state, interstate agency or body, business, trust, partnership, association, firm, company, joint stock company, joint venture, commission, or any other legal entity.

Pervious Landscape means patios, pathways, and other areas where firm footing is desired, constructed in such a way that allows for water to penetrate the ground. Examples include flagstone set in sand and wood plank decks.

Positive Shut-Off means a valve that is held in a closed position by system pressure until it is overridden by an outside source.

Residential Customer means a single or multi-family dwelling unit containing two or fewer family units.

Shrub means a woody plant, deciduous or Evergreen, generally multi-stemmed with small branches near the ground and growing smaller than a tree.

Single-Pass Cooling System means a system that removes heat by transferring it to a supply of clean water and releasing it down the drain. This system is relatively inexpensive to install, but it is significantly more expensive to operate, resulting in high water and sewer bills. Examples of cooling equipment that may have single-pass cooling include: air conditioners, refrigerators, coolers, and ice machines.

Summer Dormancy means the ability of turf grass to survive without water for a period of sixty (60) consecutive days during the months of May through September. Turf grass, with summer dormancy capabilities approved for use, is set forth in the Approved Low Water Plant List.

Swimming pool means any portable or permanent structure containing a body of water 24 inches or more in depth and containing 1,100 gallons or more of water and is intended for recreational purposes.

Tenant means one that pays rent to use or occupy land, a building, or other property owned by another person.

Turf or Turf Grass means a perennial groundcover plants and grasses adapted to regular mowing and traffic through management, which excludes St. Augustine grass.

Utilities Director means the director of the Utilities Department of the City of Laredo.

Utility means the City of Laredo Utilities Department, which provides water and wastewater services to the residents of the City of Laredo in the State of Texas, County of Webb.

Vehicle Wash Facility means a permanently-located business that washes vehicles with water or water-based products including, but not limited to, self-service vehicle washes, full-service vehicle washes, roll-over/in-bay style vehicle washes, and fleet maintenance wash facilities.

Vehicle Washing means the washing of any motor vehicle, motorcycle, truck, trailer, boat, airplane, or other mobile equipment.

Vehicle Wash Fundraiser means any special-purpose vehicle wash event for which a fee is charged or a donation is accepted.

Wastewater means water that has already been used, which includes substances such as: human waste, food scraps, oils, soaps, or chemicals. In homes, this includes water from sinks, showers, bathtubs, toilets, washing machines, and dishwashers; businesses, industries, and storm runoff also contribute to these waste products.

Water Conservation Plan means 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.

Water Conservation Planner means the manager of the Water Conservation Program in the City of Laredo. Duties include, but are not limited to, administering and enforcing the program, hearing and reviewing all variance petitions and water conservation plans, and preparing approved variances.

Water Harvesting means the process of intercepting irrigation runoff or storm water and storing it with the intention of putting it to beneficial use thereby reducing runoff and making maximum use of irrigation and rain water.

Water Flow Restrictor or Aerator means an orifice or other device designed to reduce the rate at which water moves.

Water Waste means any water, other than natural precipitation, that flows from a property to the public right-of-way or adjacent private property. Landscape irrigation is the most common cause of water waste, but it can also result from air conditioning systems, leaks, car washing, and other uses of water. Water waste results in the loss of a valuable natural resource.

Xeriscape means a type of landscaping that is drought resistant, conserves water and protects the environment. The word is a combination of “landscape” and the Greek word “xeros” meaning “dry.” Xeriscape is a trademark of the Denver Water Department.

Sec. 31-141.18. Specific & Quantified Water Conservation Goals.

In an effort to reduce long-term capital expenditures, the City of Laredo instituted a Water Conservation Program in February 2006 to implement water conservation regulations citywide in accordance with the rules of the Texas Water Development Board and the Texas Commission on Environmental Quality. The City of Laredo will continue to implement additional activities and programs, as deemed necessary, in order to meet or exceed the specific and quantified water conservation goals listed below:

- (a) Reduce unaccounted-for water to 15% by the year 2014 and 10% by the year 2019 through improved water use accounting system, leak detection, and leak repairs
- (b) Reduce the gallons per capita per day (gpcd) consumption by 20% from a four-year average of 190 gpcd to 150 gpcd by the year 2019
 - Year 2009 – 190 gpcd
 - Year 2010 – 186 gpcd
 - Year 2011 – 182 gpcd
 - Year 2012 – 178 gpcd
 - Year 2013 – 174 gpcd
 - Year 2014 – 170 gpcd
 - Year 2015 – 166 gpcd
 - Year 2016 – 162 gpcd

- Year 2017 – 158 gpcd
 - Year 2018 – 154 gpcd
 - Year 2019 – 150 gpcd
- (c) Increase the beneficial reuse of effluent from the City’s wastewater treatment facilities
- (d) Continue to use increasing block rates for water and wastewater services to discourage excessive water usage
- (e) Continue to implement the meter testing, repair, and replacement program, as well as leak detection efforts, in order to assist reducing the unaccounted-for water to 15%
- (f) Continue to meet or exceed all Texas Commission on Environmental Quality (TCEQ) and Environmental Protection Agency (EPA) requirements

These goals are consistent with commonly accepted water industry standards as required by the 30 Texas Administrative Code §288.2, entitled “Water Conservation Plans for Municipal Uses by Public Water Suppliers” and the Texas Water Development Board.

Sec. 31-141.19. Water Conservation Program.

The City of Laredo’s Water Conservation Program is designed to provide practices, techniques, and technologies that help reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, and increase the recycling and reuse of water for the ultimate purpose of making available a water supply for future or alternative uses. The program is comprised of a water conservation planner and water conservation inspectors, who are responsible to implement water conservation requirements and enforce the ordinance.

Activities currently implemented by the Water Conservation Program consist of elementary and middle school presentations, career day presentations at middle and high schools, participation at local civic events, publications of department newsletter, flyers, and other water-related documents. In addition, the Water Conservation Program coordinates water and wastewater treatment plant tours, creates water conservation videos and slide shows that are aired on the Public Access Channels, prepares press releases, advertisements and other public relations messages, and it also enforces the water conservation ordinance and the drought contingency ordinance through its water conservation staff.

Sec. 31-141.20. Accurate Metering Devices.

Raw water diverted from the Rio Grande is metered, as well as the treated water that is sent to the booster pumping stations for distribution throughout the City of Laredo. Each meter has an accuracy within the range of plus or minus 0.5%. The meters must be calibrated at least annually by qualified personnel in order to maintain the required meter accuracy. Meters must be replaced or repaired, as deemed necessary.

Sec. 31-141.21. Universal Metering.

Metering all water services is an effective way of improving and maintaining control of the water system operations and for providing the basis of an efficient and equitable cost recovery. Metering provides a database for system performance monitoring, for planning future facilities, and for assessing the effects of water conservation measures. Metering also improves accountability for both water deliveries and unaccounted-for water losses. A standard universal metering system is used to monitor the quantity of water that is delivered to each residential and

commercial customer. Water delivered to public facilities is not an exception. The meters are read by the utility's meter readers and recorded on the City's system once per month, with billings made monthly to residential and commercial customers. Since 2002, meters of ages 10 years or older are being replaced with an emphasis on the largest meters first. It is essential that all meters larger than 3/4" be tested. The City will be testing all meters for accurate readings. Faulty meters will be repaired or replaced, as deemed necessary.

Sec. 31-141.22. Unaccounted-for Water Use.

Unaccounted-for water, which includes authorized but unmetered uses of water such as fire fighting and flushing of a waterline, is the difference between the treated water leaving the water treatment plants and the water delivered to the customers through a meter. There are several categories of unaccounted-for water, which include but are not limited to:

- (a) Loss of water due to inaccuracies in older meters
- (b) Loss of water due to water main breaks in the distribution system
- (c) Loss of water due to the waterline leaks in the distribution system
- (d) Loss of water due to illegal connections

The utility has implemented various procedures to improve the accounting for unmetered water losses resulting from the flushing of water mains, fire fighting, and main waterline breaks. Utility staff has received and will continue to receive training in how to open and close valves and fire hydrants, which is essential in the repairing or replacement of waterlines. In addition, the utility will continue to use its sonic water leak detection equipment, as often as possible, when conducting periodic visual inspections along distribution lines to detect water leaks.

No person shall be allowed to open or close a fire hydrant or fire hydrant meter without having a training and certificate from the Utilities Department for having completed a mandatory training with the exception of the City of Laredo Fire Department when conducting trainings at the Fire Training Facility located at Pinto Valle. Mandatory training will be free of charge.

The utility's Customer Service Division initiated a strong program to detect and prevent illegal connections. (Refer to Illegal Connections Ordinance #2001-O-128 and as amended). When an illegal connection is identified, staff take pictures, remove the illegal connection, send correspondence to the property owner, document the file, and impose a hefty illegal connection fee. Water conservation inspectors also assist by issuing a citation for theft of water services and for having an illegal connection. If an illegal connection is caught again on the premises, the same process is followed and a police report is filed. The Laredo Police Department then proceeds with an investigation, which may lead to prosecution.

In order to reduce the loss of water due to the inaccuracies of older meters, the utility is in the process of implementing a pilot program using an automatic meter reading (AMR) system. The AMR will help reduce the human-error factor in the reading of meters and ultimately decrease the rate of unaccounted-for water. In order to maintain an effective metering accountability, periodic meter testing will be necessary, especially when meters are found to perform outside of the accepted parameters for accuracy.

In order to determine the amount and source(s) of water loss, the City of Laredo Utilities Department will conduct a water audit at least every two years using the established format recommended by the Texas Water Development Board and the American Water Works Association.

Sec. 31-141.23. Public Education & Awareness Program.

Public education and awareness is an essential component of the Water Conservation Program. Various strategies are used to communicate the need for and benefits of water conservation and to provide useful consumer-oriented information about water conservation practices and technologies to utility customers. The Water Conservation Program currently disseminates such information through the following methods:

- (a) Bilingual presentations to schools, associations, and other civic organizations
- (b) Participation in career day events at local middle and high schools
- (c) Publications of department newsletter, flyers, and other water-related documents
- (d) Coordination of water and wastewater treatment plant tours
- (e) Creation of water conservation videos and slide shows airing on Public Access Channels
- (f) Preparation of press releases, advertisements and other public relations messages
- (g) Enforcement of water conservation ordinance through water conservation inspectors

In order to further expand public education and awareness within the community, the following additional activities will be implemented:

- (h) Provide water conservation literature and a water conservation kit to new utility customers at the time they apply for new service and to utility customers who report high water use
- (i) Provide demonstrations and workshops regarding xeriscaping
- (j) Implement a school education program for teachers and students at the local public and private schools using water curricula successful in other similar Texas cities
- (k) Coordinate events that promote efficient water use and conservation such as: Fix-A-Leak Week, World Water Day, and Drinking Water Week
- (l) Create a Water Camp during the summertime to expose children of all ages to rain harvesting, xeriscaping, testing water samples, and learning water conservation tips
- (m) Update the department's website to include interactive activities for teachers and students; to post additional water conservation or water-related links; and to maintain current information

Sec. 31-141.24. Water Rate and Sewer Rate Structure.

The City of Laredo has a water rate increase plan as specified in Ordinance # 2006-O-052 and as amended.

In addition to an escalating water rate structure, the City of Laredo adopted a sewer rate increase plan as specified in Ordinance #2008-O-143 and as amended.

Sec. 31-141.25. Reservoir Systems Operation Plan.

The City of Laredo does not own a reservoir; therefore, a reservoir systems operation plan is not applicable to the City. The City of Laredo, however, shares the waters of the Rio Grande River, which serves as a natural boundary along the borders of Laredo, Texas and Nuevo Laredo, Tamaulipas. The Amistad and Falcon Reservoirs are naturally connected to the Rio Grande River; therefore, the City of Laredo has a Drought Contingency Ordinance in effect to help

optimize the available water supplies of the Rio Grande River. (Refer to Drought Contingency Ordinance.)

Sec. 31-141.26. Implementation and Enforcement.

The City of Laredo Utilities Director has the primary responsibility for implementing and enforcing the Water Conservation Ordinance through the Water Conservation Program. All water conservation orders described on this ordinance shall be enforced by the utility's water conservation inspectors and other utility personnel designated by the Utilities Director, code enforcement inspectors, code-certified personnel from other city departments, police officers, and the Municipal Court, as appropriate.

Any employee of the City of Laredo Utilities Department designated by the Utilities Director and Police Department or code-certified employees from another City department may issue a warning or citation to a person that he or she reasonably believes to be in violation of this ordinance. The alleged violator shall receive two written warnings before receiving the first citation. The citation, which shall be issued on the third offense and thereafter, shall be prepared in triplicate form and must contain the name and address of the alleged violator, if known, the offense charged, and shall direct him or her to appear at the City of Laredo Municipal Court on the date shown on the citation, which date shall be not less than 5 days or more than 10 days from the date that the citation was issued. The citation must be issued to the alleged violator, an agent, manager, or employee of the violator, or to a person of age 18 years or older who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall be served with a copy of the citation, and a copy must be submitted to the Water Conservation Program for data entry and recordkeeping. Any pictures taken as proof of violation shall also be submitted to the Water Conservation Program with a copy of the citation. The original document must be delivered to the City of Laredo Municipal Court for stamping and processing. The alleged violator shall appear at the City of Laredo Municipal Court to enter a plea of guilty or not guilty for the violation of this ordinance. If the alleged violator fails to appear in court, a warrant for his or her arrest may be issued by the City of Laredo Municipal Court. A summons to appear in court may also be issued in lieu of an arrest warrant. Cases involving a violation of the Water Conservation Ordinance shall be expedited and given preferential setting at the City of Laredo Municipal Court before all other cases.

Sec. 31-141.27. Penalties.

After receiving two (2) written warnings, a person who violates this Water Conservation Ordinance shall be issued a citation and may be guilty of a Class C misdemeanor. Upon citation and conviction, the alleged violator shall be punished by a fine of five hundred dollars (\$500) per violation per day. Each violation of a particular section of this ordinance shall constitute a separate offense, and each day that an offense continues shall be considered a new violation for purposes of enforcing this ordinance. All payments shall be made payable to the City of Laredo Municipal Court, as set forth in the City Code of Ordinances and approved and adopted by the City Council, and the court shall transfer a total of 50% of each fine to a "water conservation fund" in the City's annual budget. Funds from the "water conservation fund" shall be used for programs related to water conservation, which include, but are not limited to, educational programs, free giveaway programs, and other water conservation programs for the community.

After receiving two (2) written warnings, the third offense and thereafter will incur a one-time water waste fee per citation issued, as listed below. The fee will be added to the regular monthly payment of the account responsible for paying the water services delivered to the meter at the property in violation. Repeated violations will result in higher water waste fees, as indicated below:

- (a) 1st Citation: \$5 water waste fee
- (b) 2nd Citation: \$10 water waste fee
- (c) 3rd Citation: \$20 water waste fee
- (d) 4th Citation: \$40 water waste fee
- (e) 5th Citation: \$80 water waste fee
- (f) 6th Citation: \$320 with each additional fine increasing in increments of \$160

Note: A previous violation shall not be considered if a period of one (1) year has elapsed since the violation was first incurred or the property is acquired by a new owner or tenant.

Utility customers who receive a citation for violation of any provision described in the Water Conservation Ordinance will have the choice to pay the water waste fee or file for a hearing. Unless the utility customer requests a hearing at the City of Laredo Municipal Court, the water waste fee will be included in the next water bill. To pay the fee, the utility customer simply needs to pay the amount due on the water bill. If the utility customer has questions regarding the water waste violation or would like to arrange to view picture evidence, the utility customer will need to call the Water Conservation Program staff or other City of Laredo enforcement staff who issued the citation.

The utility's Customer Service Division shall be responsible for billing and collecting the water waste fee, as set forth in the City Code of Ordinances and approved and adopted by the City Council. All water waste fees shall be collected 100% by the Customer Service Division and shall be transferred to a "water conservation fund" in the City's annual budget. Funds from the "water conservation fund" shall be used for programs related to water conservation, which include, but are not limited to, educational programs, free giveaway programs, and other water conservation incentive programs for the community.

Sec. 31-141.28. Coordination with Regional Water Planning Groups.

The service area of the City of Laredo is located within the Rio Grande Regional Planning Group, known as the Rio Grande Region (M). The City of Laredo had previously provided a copy of the existing water conservation and drought contingency ordinance to this group as an effort to maintain a close coordination with the Rio Grande Region (M). Copies of any amendment to this ordinance(s) will continue to be provided to the Rio Grande Region (M) in order to maintain a close communication with them in regards to water conservation efforts implemented for the City of Laredo community or drought emergency triggers affecting the Rio Grande River along the Laredo border.

Sec. 31-141.29. Leak Detection, Repair, and Water Loss Accounting.

Meter readers, water conservation inspectors, and other utility staff assist with detecting leaks caused by irrigation systems, meters, backflow devices, fire hydrants, waterlines, fire protection lines, and wastewater lines. When leaks are identified, the utility's Emergency Call Center is

notified to dispatch a serviceman from the responsible division to the location of the leak. The responsible division will do the necessary repairs to eliminate the leak or replace the faulty meter, fire hydrant, water line, or wastewater line, if necessary. If a meter, an irrigation system, or backflow device is found to be leaking on the private side, the property owner will be notified and issued a written warning for failure to repair a controllable leak. Failure to repair the private leak, after the second warning, will constitute a citation and incur the penalties established in this ordinance.

The utility uses a sonic water leak detection device to locate water leaks. The utility plans to implement a long-term water main replacement and upgrade program in an effort to reduce the number of waterline leaks and breaks. Based on a 50 year life cycle, water lines will be replaced per year.

Water loss accounting to control water loss from water waste and unaccounted-for water are part of the utility's routine operations. The standard universal metering system, used by the utility, helps reduce the amount of unaccounted-for water. Meter readers, water conservation inspectors, and other utility staff assist by identifying and reporting any signs of illegal connections so that they are addressed as promptly as possible by the responsible division. Those who are found to be illegally connected to the City's water system face disconnection of water service, penalties, and convictions, as deemed necessary. Waterline leaks or breaks are reported to the utility by the public or other City personnel, and they are documented on NaviLine, a computerized system. Then utility crews respond quickly to repair or replace the waterlines and provide the proper information to complete the computerized reports. These strategies provide the ability to generate a more accurate estimate of the actual water losses and also help evaluate costs and benefits associated with leak detection, repair, and/or replacement of main waterlines.

Sec. 31-141.30. Record Management System.

The utility's Jefferson Water Treatment Plant staff produces daily reports, which document the total plant flows and daily average water demands measured in million gallons of water per day.

Water sales are reported by the utility's Customer Service Division on a daily basis as new water customers pay for the connection of a new regular or irrigation meter. A Customer Information System is used to control the water delivered to each customer on a monthly basis according to the meter reading dates. The Customer Service Division is responsible for maintaining the customer billing accounts current. In addition, the Customer Service Division provides temporary meters to contractors who need to use water from a fire hydrant for construction purposes. The temporary meter registers the amount of water released through the fire hydrant, and the water used is then paid for by the contractor.

Water sales are also reported by the utility's Engineering Division as it bills contractors or developers for the total amount of water used to flush the water lines, conduct pressure tests, and conduct bacteriological tests for their development.

This record management system used by the utility records the water pumped, water delivered, water sales, and water losses for all water customers at all times.

Sec. 31-141.31. Wholesale Water Supply Contract Requirements.

The City of Laredo is not a wholesale water supplier; therefore, there are no wholesale water supply contracts. This section does not apply to the City of Laredo.

Sec. 31-141.32. Conservation-Oriented Water Rates and Water Rate Structures.

The utility instituted an increasing water block rate schedule in April 2006 for a period of 31 years, as approved by City Council, categorizing a water rate structure for each of the following block tiers: residential, multi-family, residential irrigation, commercial, commercial irrigation, and commercial hydrant. As the water consumption increases, the water rate also increases, thereby, discouraging the use of excessive water use serving as an indirect conservation-oriented water rate structure.

Sec. 31-141.33. Water-Conserving Plumbing Fixtures.

Under the Texas Health & Safety Code, Section 372.002, "Water Saving Performance Standards," water-conserving plumbing fixtures are required by all local municipalities in the State of Texas for new structures and existing structures undergoing substantial modification or addition. On January 1, 1992, Texas Legislature created the Water-Saving Plumbing Fixture Program to promote water conservation. Manufacturers of plumbing fixtures sold, offered for sale, distributed, or imported to Texas need to comply with the Environmental Performance Standards for Plumbing Fixtures.

Water efficiency standards adopted by state and federal government supersede and replace any local standards. The water saving performance standards for a plumbing fixture are those established by the American National Standards Institute or the following standards, whichever are more restrictive:

- (a) For a sink or lavatory faucet or a faucet aerator, the maximum flow may not exceed 2.2 gallons of water per minute at a pressure of 60 pounds per square inch;
- (b) For a shower head, the maximum flow may not exceed 2.75 gallons of water per minute at a constant pressure over 80 pounds per square inch;
- (c) For a urinal and the associated flush valve, if any, the maximum flow may not exceed an average of one gallon of water per flushing;
- (d) For a toilet, the maximum flow may not exceed an average of 1.6 gallons of water per flushing;
- (e) For a wall-mounted toilet that employs a flushometer or flush valve, the maximum flow may not exceed an average of two gallons of water per flushing;
- (f) For a drinking water fountain, it must be self-closing.

In addition to these mandatory water efficiency standards, the City of Laredo recommends the following water conservation measures:

- (a) Hot Water Pipes to be insulated when the hot water lines are not in or under a concrete slab
- (b) Swimming Pools, previously constructed, to have a recirculation and filtration system
- (c) Automatic Dishwashers to use less than 6 gallons of water per cycle for residential dwellings
- (d) Automatic Clothes Washers to use less than 14 gallons of water per cycle for residential dwellings

The use of water efficient plumbing fixtures in new construction and rehabilitation of structures will significantly reduce the per capita water use and wastewater flows. Such savings will enhance the market economy as new developments will be conserving water and older inefficient structures will be rehabilitated replacing plumbing fixtures with those that are water efficient. In addition, water savings associated with high-efficiency plumbing fixtures are relatively predictable as the savings are not dependent on conscious effort by the consumer to modify water use behaviors.

New water-conserving plumbing fixtures that replace or retrofit the existing plumbing fixtures must follow the residential and commercial construction requirements as described in the International Plumbing Code, as adopted by the City of Laredo, which includes high-efficiency plumbing fixtures.

Sec. 31-141.34. Reuse and Recycling of Wastewater.

Wastewater is water that has already been used, such as water from sinks, showers, bathtubs, toilets, washing machines, and dishwashers. Wastewater includes waste products, such as: human waste, food scraps, oils, soaps, and other chemicals. Many businesses, industries, and even storm runoff contributes to these waste products. However, most of this wastewater can be reused and recycled as a way to conserve water.

- (a) Wastewater Reuse Program: The City of Laredo Utilities Department has a wastewater reuse program, in which effluent is used at the wastewater treatment plant for many beneficial purposes instead of using potable water. Effluent, which is treated wastewater that meets the requirements of the Texas Commission on Environmental Quality and is suitable for a beneficial use, is used by the utility for wash downs, dust control, cleaning of equipment, tank washing, and for site irrigation. In addition, Effluent from the North Laredo Wastewater Treatment Plant is used to irrigate the Laredo Country Club Golf Course and the Casa Blanca State Park Golf Course. In the future, it is anticipated that other large areas, such as the Laredo Community College South Campus will be using effluent for irrigation purposes. Other assessments shall be made to determine the feasibility of reusing Effluent to irrigate City parks and athletic fields.
- (b) Vehicle Wash Water Recycling Systems: Water recycling systems shall be installed at any type of vehicle wash facility that is new or that is undergoing renovations. From and after the effective date of this ordinance, any new commercial carwash and truck wash facility, new service center, or established facilities undergoing renovations of washing equipment, shall reuse and recycle water. A permit must be obtained from the City of Laredo Utilities Department certifying that the facility will use at least 50% of water from previous rinses or use less than 50 gallons of water per vehicle being washed.
- (c) Bleeder Lines from Evaporative Systems: New and replacement bleeder lines from evaporative systems shall not be larger than one eight-inch diameter inside. Lines shall be directed to discharge the Effluent outdoors to irrigate landscaping or other vegetation, if possible, except where this would be impractical or unfeasible as determined by the Utilities Director.
- (d) Single-Pass Cooling or Heating Systems: The use of water for non-residential single-pass cooling or heating systems is strictly prohibited, unless the water is reused and recycled for

other purposes such as irrigating landscaping or other vegetation. These efforts will help wastewater to be recycled and reused throughout the City.

Sec. 31-141.35. Pressure Control and Reduction.

Pressure is the force that determines how much water can pass through a faucet, valve, pipe, or hole at any given time. Pressure reduction valves are used to adjust the pressure. If a faucet can have a flow rate ranging from 3.0 to 5.6 gallons per minute at 150 pounds per square inch (psi), it is evident that pressure control and reduction is of utmost importance. Reducing the pressure causes less water to flow through the opened valve or faucet in a given time. Pressure reduction also saves water by reducing the mechanical stress placed on plumbing fixtures and appliances, and more importantly by reducing the stress placed on the distribution system, which usually leads to waterline breaks. Pressure reduction valves shall be installed where the system pressures exceed 80 psi.

Sec. 31-141.36. Landscape Requirements.

From and after the effective date of this ordinance, all new construction will be recommended to use Xeriscape. Attached is Exhibit A, "Approved Low Water Plant List for Laredo" which lists all plants, shrubs, vines, groundcovers, perennials, ornamental grasses, trees, and turf grasses suitable for Laredo and is available through the Water Conservation Program.

In addition to using xeriscape and the Approved Low Water Plant List for Laredo, the following requirements must be met:

- (a) Requirements for Homebuilders and Developers: Those subdividing lots and/or constructing new single-family residential homes, apartment buildings, commercial buildings, churches, cemeteries, or industrial parks shall recommend xeriscape options to prospective buyers.
- (b) Requirements for General Contractors: Those constructing new public facilities shall recommend xeriscape options.
- (c) Requirements for Turf Grass Use: New residential sites and new businesses that incorporate turf grass in their landscaping shall only use approved grasses with summer dormancy capabilities as listed on the Low Water Plant List for Laredo. New residential sites shall use turf grass in the total landscaped area. New commercial, governmental, or public sites shall not exceed 30% turf grass of the total landscaped area. Turf grasses are prohibited in parkways, narrow strips of land, medians, sloped areas (except for erosion control), and in entrances within new residential or commercial sites, applicable to construction begun after effective date of this ordinance.
- (d) Requirements for New Public Facilities: It is recommended that all new public schools, municipal, county, state and federal government buildings, and public libraries be designed with xeriscape.
- (e) Recommendation for Existing Public Facilities: It is strongly recommended that all landscaping on existing public schools, municipal, county, state, and federal buildings, including public libraries and public parks, be converted to xeriscape within ten (10) years from the effective date of this ordinance.

Sec. 31-141.37. Landscape and Outdoor Water Management.

Under this ordinance, customers will be allowed to use water outdoors any day at any time, unless a more stringent drought triggering stage from the Drought Contingency Ordinance is declared.

The following are outdoor water management requirements:

- (a) Hand-watering using a handheld hose with a positive shut-off nozzle shall be permitted any day at any time. Leaving a water hose unattended is strictly prohibited.
- (b) Vehicle washing shall be permitted on Saturdays and Sundays any time during the day using a bucket and handheld hose with a positive shut-off nozzle. The faucet outdoors shall have a hose bibb vacuum breaker to prevent any contamination from entering the water system. Using a leaking faucet or a leaking water hose is strictly prohibited.
- (c) Washing sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas shall only be permitted if a high pressure washer not to exceed 4.5 gallons per minute is used. Washing a street is strictly prohibited, unless it is done by a city department to eliminate a public hazard.

The provisions of the Water Conservation Ordinance shall not be interpreted as part of or in lieu of the City's Drought Contingency Ordinance. During a more stringent drought triggering stage, the outdoor water use conditions from the Drought Contingency Ordinance shall supersede this ordinance. (Refer to Drought Contingency Ordinance.)

Sec. 31-141.38. Water Waste Management.

Water run off from a private property into a city property, such as streets, ditches, or storm drains, is contrary to public health and public safety and therefore is declared a nuisance. From and after the effective date of this ordinance, it is unlawful for any person to waste water. Water waste is water flowing from a property to the public right-of-way or adjacent private property, and it is strictly prohibited as a condition of receiving water services from the City of Laredo Utilities Department.

The only water conservation requirement for all water utility customers is to eliminate water waste since water waste results in the loss of a valuable natural resource, degrades streets and city improvements, and creates public safety hazards.

The following uses of water are defined as water waste and are absolutely prohibited:

- (a) Using a water hose to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas (unless a high pressure washer of 4.5 gallons per minute or less is used);
- (b) Using a water hose to wash down buildings or structures for purposes other than immediate fire protection (unless a high pressure washer of 4.5 gallons per minute or less is used);
- (c) Allowing water to spray or run off in any street, gutter, ditch, or drain; and
- (d) Failing to repair a controllable leak(s) within a reasonable period after having been given a written warning directing the repair of such leak(s).

Each of these violations shall constitute a separate offense, and each day that an offense continues shall also be considered a new violation for purposes of enforcing this ordinance. In

addition, after receiving two (2) written warnings, the third offense and thereafter will incur a water waste fee to discourage wasting water, as described under the Penalties Section.

Sec. 31-141.39. Other Water Management Strategies.

- (a) Vehicle Wash Fundraisers: Vehicle washing for fundraising purposes by schools, non-profit organizations, or charity organizations shall require a one-day permit from the City of Laredo Utilities Department. An application for a one-day permit must be obtained from the Water Conservation Program. A complete application shall be submitted to the Water Conservation Program at least five (5) days before the day of the event. A fee of \$10.00 shall be charged for each permit, and funds are to be deposited into a “water conservation fund” in the City’s annual budget. Funds from the “water conservation fund” shall be used for programs related to water conservation, which include, but are not limited to, educational programs, free giveaway programs, and other water conservation programs for the community. Payments shall be made by check or money order and made payable to the City of Laredo Utilities Department. Upon receiving payment of \$10.00 for each car washing fundraising activity, the Water Conservation Program will issue a one-day permit (not to exceed five hours), approved by the Utilities Director, with instructions on water conservation strategies, and one hose bibb vacuum breaker to be placed on the outdoor faucet at the location of the event to help protect the City’s water system from any possible contamination. The school or non-profit organization shall be responsible to purchase additional hose bibb vacuum breakers from any local hardware store when using more than one outdoor faucet at the same location.
- (b) Mobile Vehicle Washing: Mobile vehicle washing, which provides on-site services, will not be permitted, unless an eco-friendly vehicle washing system is used that features a super fine mist of 1.6 gallons of water per minute or less. Only dry mobile-washing, which is a waterless way of washing a vehicle, shall be permitted any day at any time.
- (c) Large Water Users: The customer of any residential, commercial, or irrigation meter, including that of athletic fields, golf courses, subdivision areas, and parks, that register more than 4,000 gallons of water per day shall prepare a water conservation plan and submit it to the Water Conservation Program. The plan must demonstrate that reasonable diligence will be used to avoid waste and achieve water conservation. The water conservation plan shall include techniques and technologies that will reduce water consumption, reduce the loss of water, and improve the efficiency of water utilization, or increase the recycling and reuse of water. A revised plan shall be submitted every two years.
- (d) Dining Facilities and Cafeterias: Commercial dining facilities, school cafeterias, and hospital cafeterias shall provide a water conservation plan that shows a 10% improvement of monthly water usage or:
 - 1. Serve water only upon request by customer.
 - 2. Utilize positive shut-off nozzles or valves on dish-rinsing wands for dish-washing.
 - 3. Utilize water flow restrictors for all garbage disposals.
 - 4. Utilize water efficient dish-washing machines or steam washers.
 - 5. Install hot water on-demand systems.
- (e) Hotels and Lodging Facilities: Hotels and other lodging facilities shall provide a water conservation plan that shows a 10% improvement of water usage or:
 - 1. Offer patrons the option of reusing towels, bed linens, and pillowcases while lodging.
 - 2. Install hot water on-demand systems.
 - 3. Utilize water efficient laundry machines, dish-washing machines, or steam washers.

4. Utilize positive shut-off nozzles or valves on dish-rinsing wands for dish-washing.
 5. Utilize water flow restrictors for all garbage disposals.
- (f) Laundry Facilities: All new commercial laundry facilities shall install water efficient laundry machines or steam washers. Established facilities undergoing renovations or replacing equipment shall install water efficient laundry machines or steam washers.
 - (g) Automatic Control Valves: All buildings having five (5) or more toilets and/or urinals shall have automatic control valves to prevent a sudden massive drop in water pressure, resulting in a continuous flow of water into the units when multiple units are flushed at the same time.
 - (h) Water Deionization or Reverse Osmosis Systems: New residential, commercial, and industrial water deionization systems or reverse osmosis systems shall meet the current industry standards and shall be installed by a licensed plumber to prevent back flow into the potable water supply.
 - (i) Bleeder Lines from Evaporative Systems: New and replacement lines shall not be larger than one eight-inch diameter inside. Lines shall be directed to discharge the effluent outdoors to irrigate landscaping or other vegetation, if possible, except where this would be impractical or unfeasible as determined by the Utilities Director.
 - (j) Single-Pass Cooling or Heating Systems: The use of water for non-residential single-pass cooling or heating systems is strictly prohibited, unless the water is reused and recycled for other purposes such as irrigating landscaping or other vegetation. Newly installed ice machines shall not be single-pass cooled.
 - (k) Cooling Towers: Newly constructed Cooling Towers shall be operated with conductivity controllers and makeup and Blowdown Meters. This type of connection shall not qualify as an irrigation meter. Cooling Towers shall operate a minimum of three cycles of concentration.
 - (l) New Swimming Pools, Splash Parks, and all other water parks: All shall be equipped with filtration, pumping, and recirculation systems.

Sec. 31-141.40. Performance Measurement Tools.

In an effort to monitor the effectiveness and efficiency of the existing Water Conservation and Drought Contingency Ordinance, a water conservation database is used to document the number of watering violations throughout the City. The database can generate reports by type of violation, address of violation, date of violation, and by inspector name. The alleged violators receive water conservation pamphlets that help educate the customer and prevent the violation from reoccurring.

The utility's Jefferson Water Treatment Plant also generates reports that show the water consumption on a daily, weekly, or monthly basis, which help make comparisons as needed. This report is a type of performance measurement tool that helps monitor the raw water intake and water treated at the water treatment plants and the delivery of potable water to the distribution system.

Additional performance measures will be implemented to monitor the effectiveness and efficiency of this ordinance, as deemed necessary.

Sec. 31-141.41. Citizen Participation.

All citizens are encouraged to participate in water conservation and to report any violation of this ordinance to the City of Laredo Utilities Department-Main Office at (956) 721-2000, the Water Conservation Program Hotline at (956) 721-2020, or the 311 Call Center at 3-1-1.

Sec. 31-141.42. Exempted Parties.

Owners of water wells, owners of water rights, and effluent users are exempt from the provisions of this ordinance, except that they are prohibited from allowing water to spray or run off in any street, gutter, ditch, or drain.

Customers using effluent for irrigation or other purposes shall have an approved written agreement from the City of Laredo Utilities Department.

Sec. 31-141.43. Variances.

The Utilities Director has the authority to approve a variance for irrigation of new landscaping and irrigation of athletic fields, on a case-by-case.

Sec. 31-141.44-80. Reserved.

Sec. 31-141.81. Drought Contingency Plan for City Utilities.

1. *Declaration of purpose and objective.* The purpose of the city's drought contingency plan is to establish procedures for identifying and responding to a water supply emergency. The overall objective is to minimize any risks to public health and safety, preserve essential public services, and minimize any adverse impacts of a water supply emergency on the residents and economic well-being of the city.
2. *Public involvement.* Opportunity for the public to provide input into the preparation of the Plan was provided by the city by means of town hall meetings on August 9-12, 1999 and a public hearing on August 16, 1999.
3. *Public education.* The city public utilities director or designee will maintain in a current condition, information about the city's water supplies, including water levels of Falcon and Amistad Reservoirs, and shall provide this information to the mayor and city council, as appropriate. When the capacity of Falcon and Amistad Reservoirs, emergency conditions exist, or the water treatment demand reach trigger levels, as specified in the stages of the drought contingency plan, the full range of information, goals, demand reduction measures, and penalties for each respective stage, as stated in the plan, will be communicated to the city's water customers. The means of communication will be by public announcements in newspapers, radio, TV and printed bulletins which will be posted at Laredo City Hall and, when warranted, will be either mailed or hand delivered to water customers.
4. *Coordination with regional water planning groups.* The service area of the city is located within the Rio Grande Regional Water Planning Group [Rio Grande Region (M)] and the city has provided a copy of this Plan to this entity.

5. *Authorization.* The mayor or the city manager is authorized to implement each stage of the drought contingency plan as the respective trigger levels are reached. The order to implement or terminate each respective stage shall be made by public announcement and shall be published at least one time in a newspaper of general circulation in the city.
6. *Application.* The provisions of this plan shall apply to all persons, customers, and property utilizing water provided by the city. The terms “person” and “customer” as used in the Plan includes individuals, corporations, partnerships, associations, and all other legal entities.
7. *Definitions.* For the purpose of this plan, the following definitions shall apply:

Commercial and institutional water use: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

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 supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by the city.

Domestic water use: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Even-numbered address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Industrial water use: the use of water for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights of way and medians.

Non-essential water use: water uses that are not essential or required for the protection of public, health, safety, and welfare, including:

- (a) Irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this plan;
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- (d) Use of water to wash down 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) use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;

- (g) Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (h) Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) Use of water from hydrants for construction purposes or any other purposes other than fire fighting.

Odd-numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

Sec. 31-141.82. Triggering Criteria for Initiation and Termination of Drought Response Stages.

Because of the stresses that sustained high peak water demands will place on the city’s water system, the trigger conditions for the city drought contingency plan are based on excessive demand, as indicated in table 1.

TABLE 1 - WATER DEMAND TRIGGER CONDITIONS EXISTING WTP CAPACITY OF 60 MGD			
Water Use in Gallons Per Day	Duration - Consecutive Days	Classification	Stage
If water usage falls within the following ranges:			
Plant Capacity Total Flow of 60 MGD (90%)	5 days	Mild Drought Conditions	Stage 1 - Voluntary Stage 2 - Voluntary
Plant Capacity Total Flow of 60 MGD (95%)	5 days	Moderate Drought Conditions	Stage 3 - Mandatory Stage 4 - Mandatory
Plant Capacity Total Flow of 60 MGD (100%)	3 days	Severe Drought Conditions	Stage 5 - Mandatory Stage 6 – Mandatory

In addition to the established trigger conditions based on water demand, the city has adopted the “regional” trigger conditions based upon the percent capacity of U.S. Waters contained within the Amistad and Falcon Reservoirs. Although the South Texas Development Council did not develop regional triggers during Phase 1 of the South Texas Regional Water Supply Plan, the Lower Rio Grande Development Council (LRGVDC) has. Each of these councils of governments (COGs) are in region “M” of the TWDB Regional Planning Areas. At a May 13, 1998 public meetings the South Texas Development Council agreed to combine the plans being

developed by each of the COGs. Therefore, the city has incorporated the trigger conditions presented below into the drought contingency plan.

RECOMMENDED POOL LEVELS FOR IMPLEMENTATION OF VARIOUS DROUGHT CONTINGENCY PHASES

Minimum levels of U.S. water storage in Amistad and Falcon Reservoirs at which phases/stages of municipal drought contingency plans will be implemented on a regional basis.

Phase-Voluntary conservation trigger. When the level of U.S. water stored in Amistad and Falcon Reservoirs reaches fifty-one (51) or one and sixty-six hundredths (1.66) million acre-feet (MAF), voluntary stage of conservation may be put into effect. This phase consists of voluntary water conservation action to be taken by the general public, governmental agencies and all water users of waters from the Rio Grande River below Amistad and Falcon Dams on the Rio Grande. Customers of the municipal water systems in the region shall be requested to voluntarily conserve and limit the use of water.

Phase-Mandatory conservation trigger. When the levels of U.S. water stored in Amistad and Falcon Reservoirs reaches twenty-five (25) or eight hundred thirty-four thousand, six hundred (834,600) acre-feet, mandatory conservation may be declared. This phase consists of mandatory restrictions of the use of water and imposing of penalties and sanctions for violations of set restrictions.

Phase-Water curtailment trigger. When the level of U.S. water stored in Amistad and Falcon Reservoirs reaches fifteen (15) or five hundred four thousand, six hundred (504,600) acre-feet, this phase may be implemented. This phase reduces the maximum amounts of monthly water usage for residential and non-residential customers and imposes surcharges, service cut-offs, and other sanctions for violations.

In addition to the established trigger conditions based on either water demand or reservoir levels, the mayor will have the authority to declare an emergency water demand condition of mild, moderate or severe under the following conditions:

- (1) System-related problems, such as equipment failures and line breaks; and
- (2) Other conditions that may affect or otherwise limit the City's ability to meet the demand for water for a 48 hour period.

Sec. 31-141.83. Drought Response Stages.

Stage 1-Voluntary.

1. *Triggering level.* Falcon and Amistad conservation level between 51% and 36% or WTP Capacity at 90% for 5 consecutive days.
2. *Cumulative reduction goal.* Five (5) percent.

Voluntary conservation alert. Customers of the City's utility system during Stage 1 are requested to voluntarily limit the amount of water used to that amount absolutely necessary for health, business and irrigation. Notice of such request shall be given by the City Manager and/or Mayor through appropriate circular, television, radio and newspaper media at the Mayor's discretion.

The following uses of water are defined as waste of water and are absolutely prohibited:

1. Allowing irrigation water to run off into a gutter, ditch or drain;
2. Failure to repair a controllable leak;

Stage 2-Voluntary.

Voluntary compliance--Water conservation warning.

1. *Triggering level.* Falcon and Amistad conservation level between 35% and 26% or WTP Capacity at 90% for 5 consecutive days.
2. *Cumulative reduction goal.* Five (5) percent.

Since this is a voluntary stage, the restrictions presented here will not be enforced but are presented here so customers can prepare to adopt them for Stage 3. During Stage 2, the following voluntary restrictions shall apply to all persons. Notice of such order shall be given by the City Manager and/or Mayor through appropriate circular, television, radio and newspaper media at the Mayor's discretion. All elements of Stage I shall remain in effect except that:

- a) Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to water between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated hours on Tuesdays, Thursdays and Saturdays.

Irrigation of lawns, gardens, landscaped areas, trees, shrubs or other plants is permitted at any time if:

1. A continuously attended hand-held hose is used; or,
 2. A drip irrigation system is used.
- b) The washing of automobiles, trucks, boats, airplanes and other types of mobile equipment is prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to wash mobile equipment between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to wash mobile equipment between designated hours on Tuesdays, Thursdays and Saturdays. 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.

Exception: Washing may be done at any time on the immediate premises of a commercial carwash or commercial service station. Further, such washing may be exempted from this division if the health, safety and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food and perishables.

- c) The refilling or adding of water to residential swimming and/or wading pools is prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to use water for this purpose between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in odd number (1,3,5,7,9) are only allowed to water for this purpose between designated hours on Tuesdays, Thursdays and Saturdays.
- d) The operation of any ornamental fountain or other structure making similar use of water is prohibited except for those fountains or structure with a recycling system.
- e) The use of water for irrigation for parks, plazas and squares is prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. The irrigation of golf course fairway is absolutely prohibited. Provided, however, any above mentioned in this division utilizing wastewater effluent or well water is exempted from the provisions of this division.
- f) Essential and utility use.

Essential use.

- (1) *Fire fighting.* No restrictions.
- (2) *Medical use by health care facilities.* No restrictions.

Water utility use.

- (1) Reduction of average system pressure to 60 psi is recommended.
- (2) Leak detection and system repairs is recommended.
- (3) Stabilizing and equalizing system pressure is recommended.
- (4) Sewer line flushing: reduction is recommended.
- (5) Fire hydrant flushing: reduction is recommended.
- (6) Power production use: reduction of water use for power production is recommended.

- g) The following uses of water are defined as waste of water and are absolutely prohibited:
 - 1. Allowing irrigation water to run off into a gutter, ditch or drain;
 - 2. Failure to repair a controllable leak.
 - 3. Washing sidewalks, streets, driveways, parking areas, tennis courts, or other paved areas, except to alleviate immediate fire hazards.
- h) Irrigation using hose-end sprinklers or automatic sprinkler systems for athletic fields is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to water between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated

hours on Tuesdays, Thursdays and Saturdays. Irrigation using hand-held hoses or drip irrigation systems are exempt.

Stage 3- Mandatory.

Mandatory compliance-Water shortage advisory.

1. *Triggering level.* Falcon and Amistad conservation level between twenty-five (25) percent and eighteen (18) percent or WTP Capacity at ninety-five (95) percent for five (5) consecutive days.
2. *Cumulative reduction goal:* Ten (10) percent.

During Stage 3, the following restrictions shall apply to all persons. Notice of such order shall be given by the city manager and/or mayor through appropriate circular, television, radio and newspaper media at the mayor's discretion. All elements of Stage 2 shall remain in effect except that:

- a) Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to water between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated hours on Tuesdays, Thursdays and Saturdays.

Irrigation of lawns, gardens, landscaped areas, trees, shrubs or other plants is permitted at any time if:

1. A continuously attended hand-held hose is used; or,
2. A drip irrigation system is used.

Exception: Commercial nurseries commercial sod farmers and similarly situated establishments are exempt from Stage 3 irrigation restrictions, but will be requested to curtail all nonessential water use.

- b) The washing of automobiles, trucks, trailers, boats, airplanes and other types of mobile equipment is prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to wash mobile equipment between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1, 3, 5, 7, 9) are only allowed to wash mobile equipment between designated hours on Tuesdays, Thursdays and Saturdays. 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.

Exception: Washing may be done at any time on the immediate premises of a commercial carwash or commercial service station. Further, such washing may be exempted from this

division if the health, safety and welfare of the public is contingent upon frequent vehicle cleaning, such as garbage trucks and vehicles used to transport food and perishables.

- c) The refilling or adding of water to residential swimming and/or wading pools is prohibited except on designated hours between the hour of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to use water for this purpose between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water for this purpose between designated hours on Tuesdays, Thursdays and Saturdays. 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.
- d) The operation of any ornamental fountain or other structure making similar use of water is prohibited except for those fountains or structure with a recycling system.
- e) The use of water for irrigation for parks, plazas and squares is prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. The irrigation of golf course fairway is absolutely prohibited. Provided, however, any above mentioned in this division utilizing wastewater effluent or well water is exempted from the provisions of this division.
- f) Essential and utility use

Essential use.

(1) *Fire fighting.* No restrictions.

(2) *Medical use by health care facilities.* No restrictions.

Water utility use.

(1) Reduction of average system pressure to 50 psi is recommended.

(2) Leak detection and system repairs is recommended.

(3) Stabilizing and equalizing system pressure is recommended.

(4) Sewer line flushing: reduction is recommended.

(5) Fire hydrant flushing: reduction is recommended.

(6) Power production use: reduction of water use for power production is recommended

- g) The following uses of water are define as waste of water and are absolutely prohibited:
 - 1. Allowing irrigation water to run off into a gutter, ditch or drain;
 - 2. Failure to repair a controllable leak;
 - 3. Washing sidewalks, streets, driveways, parking area, tennis courts, or other paved areas, except to alleviate immediate fire hazards.
- h) Irrigation using hose-end sprinklers or automatic sprinkler systems for athletic fields is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to water between designated hours on Mondays, Wednesdays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated

hours on Tuesdays, Thursdays and Saturdays. Irrigation using hand- held hoses or drip irrigation systems are exempt.

- i) No bulk water sales shall be made from the City or water points for any purpose when such water will be transported by any tanker truck or similar type vehicle outside the City of Laredo except for domestic or residential use or for livestock as approved by the Utilities Director.

Stage 4-Mandatory:

1. *Triggering level.* Falcon and Amistad conservation level between seventeen (17) percent and twelve (12) percent or WTP Capacity at ninety-five (95) percent for five (5) consecutive days.
2. *Cumulative reduction goal.* Fifteen (15) percent.

Mandatory compliance-Water shortage alert. During Stage 4, the following restrictions shall apply to all persons. Notice of such order shall be given by the City Manager and/or Mayor through appropriate circular, television, radio and newspaper media at the Mayor's discretion. All elements of Stage 3 shall remain in effect in Stage 4 except that:

- a) Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to use water for this purpose between designated hours on Mondays and Fridays. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to use water for this purpose between designated hours on Tuesdays and Saturdays. Irrigation by hand-held hoses or drip irrigation systems is exempt.
- b) Irrigation using hose-end sprinklers or automatic sprinkler systems for athletic fields is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customer with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated hours on Tuesdays and Saturdays.
- c) The watering of golf fairway areas is prohibited unless done with treated wastewater, reused water, or well water.
- d) A water use surcharge of ten dollars (\$10.00) shall be levied against all customers that use over thirty thousand (30,000) gallons per months.

Stage 5- Mandatory.

1. *Triggering level.* Falcon and Amistad conservation level between eleven and nine-tenths (11.9) and ten (10) percent or WTP Capacity at one hundred (100) for three (3) consecutive days.

2. *Cumulative reduction goal.* Twenty five (25) percent.

Mandatory compliance-Water shortage warning. During Stage 5, the following restrictions shall apply to all persons. All elements of Stage 4 shall remain in effect in Stage 5 except that:

- a) Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are allowed to use water only on Wednesdays of each week during designated hours. Customers with an address ending in an odd number (1,3,5,7,9) are allowed to water only on Saturdays of each week during designated hours. Irrigation with water only on Saturdays of each week during designated hours. Irrigation with hand-held hoses or irrigation drip systems are exempt.
- b) The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial carwashes and commercial service stations, and not in the immediate interest of public health, safety and welfare shall be prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. and only on the owner's of such vehicles, etc. premises. Customers with an address ending in an even number (0,2,4,6,8) are allowed to wash mobile equipment only on Wednesdays of each week during designated hours. Customers with an address ending in an odd number (1,3,5,7,9) are allowed to wash mobile equipment only on Saturdays of each week during designated hours.
- c) Commercial car washes and commercial service stations in the immediate interest of the public health, safety and welfare shall be limited to fifty (50) percent of their monthly average usage based on the last twelve (12) billing periods for each of such customers. After such usage, the Public Utilities Director shall enforce this subsection by terminating water service.
- d) Commercial nurseries, commercial sod farmers, and similarly situated establishments shall water only on designated days between the hours of 10:00 p.m. and 5:00 a.m. and shall use only hand-held hoses, drip irrigation systems, or hand-held buckets.
- e) The filling, refilling or adding of water, except to maintain the structural integrity of the pool, to swimming and/or wading pools is prohibited.
- f) The operation of any ornamental fountain or similar structure, with or without recirculating features, is prohibited.
- g) Irrigation using hose-end sprinklers or automatic sprinkler systems for athletic fields is prohibited except during designated hours which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are only allowed to water between designated hours on Wednesdays of each week. Customers with an address ending in an odd number (1,3,5,7,9) are only allowed to water between designated hours on Saturdays of each week.

- h) A water use surcharge of fifteen dollars (\$15.00) shall be levied against all customers that use over 20,000 gallons per month.
- i) Fire hydrant water sales shall cease. Users shall be directed to obtain effluent from the wastewater treatment plants as available. Potable water shall only be made available for direct human consumption, to maintain sanitary conditions and for livestock only by approval by the Utilities Director.

Stage 6–Mandatory.

- 1. *Triggering level.* Falcon and Amistad conservation level at nine (9) percent or less or WTP capacity at one hundred (100) percent for three (3) consecutive days.
- 2. *Reduction goal.* Thirty-five (35) percent.

Mandatory compliance-Water shortage emergency. During Stage 6 the following restrictions shall apply to all persons. All elements of Stage S shall remain in effect in Stage 6 except that:

- a. No applications for new, additional, thither expanded, or increased- in-size water service connections, meters, service lines, pipeline extensions, mains, or other water service facilities of any kind shall be allowed, approved or installed except as approved by the city utilities.
- b. All locations of water use to non-essential industrial and commercial customers shall be reduced to amounts as established by the public utilities director.
- c. The maximum monthly water use allocation for residential customers may be established with revised rate schedules and penalties by the city council upon recommendation by the public utilities director.
- d. Irrigation by hose-end sprinklers or automatic sprinkler systems is prohibited. Irrigation is permitted only by continuously attended hand-held hoses or the use of drip irrigation systems which shall be between the hours of 8:00 p.m. to 8:00 a.m. Customers with an address ending in an even number (0,2,4,6,8) are allowed to use water only on Wednesdays of each week during designated hours. Customers with an address ending in an odd number (1,3,5,7,9) are allowed to water only on Saturdays of each week during designated hours.
- e. The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial carwashes and commercial service stations and not in the immediate interest of the public health, safety and welfare shall be prohibited.
- f. Irrigation for athletic fields is prohibited.
- g. A water use surcharge of twenty dollars (\$20.00) shall be levied against all customers that use over fifteen thousand (15,000) gallons per month.

Sec. 31-141.84. Enforcement.

The city drought contingency plan will be enforced by the city police department, code enforcement officers, utility department personnel and municipal court, as appropriate.

Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not less than twenty dollars (\$20.00) and not more than one hundred dollars (\$100.00). Each day that one or more of the provisions in this plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this plan, the utility director shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a reconnection charge, hereby established at ten dollars (\$10.00), and any other costs incurred by the city utilities in discontinuing service. In addition, suitable assurance must be given to the utility director that the same action shall not be repeated while the plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.

Any employee of the city water utilities, police officer, or other city employee designated by the utilities director, may issue a citation to a person he/she reasonably believes to be in violation of this division. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the city municipal court on the date shown on the citation which date shall not be less than three (3) days nor more than five (5) days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in the city municipal court to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in the city municipal court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in the city municipal court before all other cases.

Sec. 31-141.85. Variances.

The city manager, or his/her designee, may in writing, grant temporary variance for existing water uses otherwise prohibited under this plan [when it] is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- (a) Compliance with this plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the plan is in effect.
- (b) Alternative methods can be implemented with will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this ordinance shall file a petition for variance with the city utilities within five (5) days after the plan or a particular drought response

stage has been invoked. All petitions for variances shall be reviewed by the city manager, or his/her designee, and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Purpose of water use.
- (c) Specific provision(s) of the plan from which the petitioner is requesting relief.
- (d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this division.
- (e) Description of the relief requested.
- (f) Period of time for which the variance is sought.
- (g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- (h) Other pertinent information.

Variances granted by the city utilities shall be subject to the following conditions, unless waived or modified by the city manager or his/her designee:

- (a) Variances granted shall include a timetable for compliance.
- (b) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variances shall be retroactive or otherwise justify any violation of this plan occurring prior to the issuance of the variance.

EXHIBIT “A”
APPROVED LOW WATER PLANT LIST FOR LAREDO

This composite list consists of plants, shrubs, vines, groundcovers, perennials, ornamental grasses, trees, and turf grasses that were evaluated by local experts for suitability to Laredo’s climate, type of soil, and salinity. This list was approved by the City of Laredo Utilities Department for adoption as part of the Water Conservation Ordinance.

Anyone seeking to add or delete a plant specimen from this list may submit a written request to the Director of the Utilities Department explaining and supporting the reason for addition or deletion of such plant specimen. All additions or deletions to this approved list are subject to approval from the Director of the Utilities Department.

ANNUALS

Common Names	Scientific Name	Comments
Common Sunflower	<i>Helianthus annuus</i>	Fast grow; edible seeds; oil
Cowpen Daisy*	<i>Verbesina encelioides</i>	Flowerbeds; bird food
Globe Amaranth, Bachelor’s Button	<i>Gomphrena globosa</i>	Flowers good for cutting
Indian Blanket	<i>Gaillardia pulchella</i>	Attractive to bees, butterflies, and birds
Indian Paintbrush	<i>Castilleja indivisa</i>	Showy annual
Mexican Zinnia	<i>Zinnia mexicana</i>	Attractive to bees, butterflies, and birds
Pennsylvania Smartweed	<i>Persicaria pensylvanica laevigata</i>	High ecological value to birds, moths, butterflies, and other insects
Plains Coreopsis, Goldenwave	<i>Coreopsis tinctoria</i>	Bright, showy flowers
Prairie Sunflower	<i>Helianthus petiolaris</i>	Drought, disease tolerant; edible, true seeds
Rose Moss	Moss Rose, <i>Portulaca grandiflora</i>	Colorful flowers
Texas Bluebonnet*	<i>Lupinus texensis</i>	Spring flowers
Red Gomphrena	<i>Gomphrena haageana</i>	Rock gardens; showy flowers; attracts butterflies

CACTI

Common Names	Scientific Name	Comments
Barrel Cactus*	<i>Ferocactus wislizeni</i>	Food source; scaly yellow fruit; barrel shaped, solitary, rot prone
Cholla Tree	<i>Opuntia imbricata</i>	Long-lasting yellowish fruits; edible pads; numerous barbed glochids
Dumpling Cactus*	<i>Mammillaria runyonii</i>	Rock gardens
Engelman’s Prickly Pear	<i>Opuntia engelmannii</i>	Major wildlife food/shelter source
Fishhook Cactus*	<i>Echinocactus scheeri</i>	Accent plant; rock gardens
Nipple Cactus, Biznaga de Chilitos*	<i>Mammillaria heyderi</i>	Bird food; rock gardens
Rat-Tail Cactus*	<i>Wilcoxia poselgeri</i>	Background plant; rock gardens
Strawberry Cactus*	<i>Echinocereus enneacanthus</i>	Accent plant; rock gardens; purple flowers; edible fruit

Common Names	Scientific Name	Comments
Texas Prickly Pear, Nopal Prickly Pear, Lindheimer Prickly Pear	<i>Opuntia engelmannii</i> var. <i>lindheimeri</i>	Used extensively for food

GRASS

Ornamental

Common Name	Scientific Name	Type	Comments
Annual Fountain Grass	<i>Pennisetum setaceum</i>	Annual	Accent plant; annual border
Big Bluestem	<i>Andropogon gerardii</i>	Perennial	Finger-like flowering branches
Big Sacaton	<i>Sporobolus wrightii</i>	Evergreen	Accent; rocky slopes
Common Curly Mesquite	<i>Hilaria belangeri</i>		Grayish-green; potential turf grass; erosion control
Dwarf Pampas Grass	<i>Cortaderia selloana</i> (Pumila)	Evergreen	Showy white/yellow; drought tolerant; razor sharp leaves
Fountain Grass	<i>Pennisetum ruppelii</i>	Perennial	
Little Bluestem*	<i>Schizachyrium scoparium</i>	Perennial	Wildlife food
Muhly Grass	<i>Muehlenbergia lindheimeri</i>	Perennial	Fall color, showy foliage; bunchgrass
Pampas Grass	<i>Cortaderia selloana</i>	Evergreen	Deep green, razor sharp leaves
Perennial Fountain Grass	<i>Pennisetum alopecuroides</i>	Evergreen	Rock gardens or to plant in front of a border or bed
Purple Autumn Grass	<i>Miscanthus sinensis</i>	Evergreen	Summer flowering season
Sideoats Grama*	<i>Bouteloua curtipendula</i>	Semi-deciduous	Extremely drought tolerant; distinctive inflorescence

Turf

Common Name	Scientific Name	Comments
Bermuda Grass	<i>Cynodon dactylon</i>	Drought tolerant; poor shade tolerance
Buffalo Grass	<i>Buchloe dactyloides</i>	Drought tolerant; poor shade tolerance
Zoysia Grass	<i>Zoysia species</i>	Drought tolerant; dense; slow grower

GROUND COVER

Common Name	Scientific Name	Type	Comments
Ajuga	<i>Ajuga reptans</i>	Evergreen	Compact, dense mat; attracts bumblebees
Asiatic Jasmine	<i>Trachelospermum asiaticum</i>	Evergreen	Green or variegated foliage
Bouncing Bet	<i>Sapinara officinalis</i>	Perennial	Soap properties; poisonous; white or pink flowers
Creeping Juniper	<i>Juniperus horizontalis</i>	Evergreen	Dense shrub
Feather Dalea	<i>Dalea formosa</i>	Semi-evergreen	Spectacular when in bloom; low border
Liriope	<i>Liriope muscari</i>	Evergreen	As a border, controls erosion

Common Name	Scientific Name	Type	Comments
Mexican Sage	<i>Salvia leucantha</i>	Evergreen	Attracts hummingbirds; deer resistant
Santolina	<i>Santolina</i> sp.	Evergreen	Silver gray foliage; button-like yellow flowers; aromatic
Showy Stonecrop Sedum	<i>Sedum spectabile</i>	Deciduous	Rock garden; large pink flowers in summer
Trailing Indigo Blue	<i>Dalea greggi</i>	Evergreen	Hardy; purple flowers in summer; attracts bees
Vinca	<i>Vinca major</i>	Evergreen	Shiny green foliage; profuse periwinkle flowers
Wintercreeper Euonymus	<i>Euonymus fortunei</i>	Evergreen	Variable use as groundcover, clinging vine or small shrub

PERENNIALS

Common Names	Scientific Name	Type	Comments
Awnless Bush Sunflower	<i>Simsia calva</i>	Deciduous	Flowering year round. Can grow in heavy clay soils
Baby Sun/ Sunray Coreopsis*	<i>Coreopsis grandiflora</i>	Evergreen	Daisy-like golden blooms
Bearded Iris	<i>Iris xiphoides</i>	Bulb	Bulbous flower; variety of colors
Blue Plumbago	<i>Plumbago auriculata</i>	Evergreen	Mounded shrub; resilient
Daylily	<i>Hemerocallis</i> sp.	Semi-evergreen	Adaptable; easy grow; edible
Devil Weed, Spiny Aster*	<i>Leucosyris spinosa</i>	Deciduous	Rock gardens; accent plant
Eastern Coral Bean, Corolillo*	<i>Erythrina herbacea</i>	Deciduous	Showy flowers; attracts hummingbirds
Engelmann Daisy	<i>Engelmannia peristenia</i>	Evergreen	Yellow flowers
Foxglove	<i>Cobaea penstemon</i>	Deciduous	Food for Wildlife/Livestock
Frog Fruit, Turre Hembre*	<i>Phyla strigillosa</i>	Evergreen	Also used as groundcover
Garden Canna (Canna x generalis)	<i>Canna x generalis</i>	Evergreen	Yellow, red, pink, salmon
Goldsturm Rudbeckia	<i>Rudbeckia x goldsturm</i>	Semi-evergreen	Golden-yellow flowers
Heart Leaf Hibiscus, Tulipan del Monte	<i>Hibiscus cardiophyllus</i>	Evergreen	Attracts bees, butterflies, and birds
Heath Aster	<i>Aster ericoides</i>	Deciduous	White with yellow centers
Hinckley's Columbine	<i>Aquilegia hinckleyana</i>	Evergreen	Yellow flowers
Leather Stem, Sangre de Drago, Rubber Plant*	<i>Jatropha dioica</i>	Deciduous	Accent plant
Louisiana Iris	<i>Iris fulva</i> x, <i>Iris giganticaerulea</i> x, <i>Iris foliosa</i>	Evergreen	Year-round; drought tolerant; can be used as pond plant
Mealy Blue Sage, Mealy Cup Sage	<i>Salvia farinacea</i>	Deciduous	Borders, meadows, mixtures; attractive to bees, butterflies, and birds; deer resistant
Mexican Mint Marigold	<i>Tagetes lucida</i>	Deciduous	Attracts birds; fall bloom

Common Names	Scientific Name	Type	Comments
Mexican Primrose	Oenothera speciosa	Evergreen	Delicately fragrant white primroses; invasive
Monkey Grass	Ophiopogon japonica	Evergreen	
Moonbeam/Zagreb Coreopsis	Coreopsis certicillata	Deciduous	Long blooming
Pavonia	Pavonia lasiopetala	Semi-evergreen	Hibiscus-like pink/rose colored flowers
Perennial Verbena	Verbena sp.	Semi-Evergreen	Attracts butterflies, insects, and birds
Pink Rain Lily	Zephyranthes grandiflora	Semi-deciduous bulbs	Blooms large rose pink flowers after a heavy rainfall
Red Yucca	Hesperaloe parviflora	Evergreen	Accent plant; attracts hummingbirds
Sago Palm	Cycas revoluta	Evergreen	
Saladillo*	Varilla texana	Evergreen	Yellow flower; cactus gardens
Society Garlic	Tulbaghia violacea	Evergreen	Violet flowers; narrow leaves; onion fragrance.
Sweet Violet	Viola odorata	Semi-Evergreen	Violet flowers; heart-shaped leaves
Upright Prairie Coneflower, Mexican Hat	Ratibida columnifera	Deciduous	Deer-resistant; long leafless stalks bearing red-yellow/brown flowers
White Rain Lily	Zephyranthes candida	Evergreen	Rock gardens
White Sage	Artemisia ludoviciana	Evergreen	Hairy leaves; small gray-yellow flowers in summer
Wild Petunia*	Ruellia, Ruellia nudiflora	Deciduous	Aggressive; good background

TREES

Deciduous (S - 15-25 ft; M - 25-40 ft; L - over 40 ft)

Common Names	Scientific Name	Size	Comments
Bald Cypress	Taxodium distichum	L	Conifer with fall color
Berlandier Ash	Fraxinus berlandierana	M	Gray-green to bright-green foliage
Berlandier Fiddlewood, Negrito*	Citharexylum berlandieri	S	Gnarled trunk
Bur Oak	Quercus macrocarpa	L	Bold foliage; huge acorns
Cedar Elm, Olmo	Ulmus crassifolia	M-L	Fall color
Chinese Parasol Tree	Firmiana simplex	L	Shade tree; specimen
Chinese Pistache	Pistacia chinensis	L	Spreading canopy; fall color
Chinkapin Oak	Quercus muehlenbergii	L	Compact shade tree
Common Crape Myrtle	Lagerstroemia indica	S	Showy flowers
Common Fig	Ficus carica	S	Edible fruit
Desert Willow, Mimbre	Chilopsis lineraris	S	Attracts Hummingbirds
Fan d'Arc Osage Orange	Maclura pomifera 'Fan d'Arc'	S	Improved fruitless selection
Goldenrain Tree	Koelreuteria paniculata, K. bipinnata	M	Showy flowers and seed pods

Common Names	Scientific Name	Size	Comments
Gum Bumelia, Coma, Woollybucket Bumelia	<i>Sideroxylon lanuginosum</i>	S-M	Showy flowers
Honey Locust	<i>Gleditsia triacanthos</i>	L	Thornless varieties available
Honey Mesquite*	<i>Prosopis glandulosa</i>	M	Wildlife food
Jacaranda	<i>Jacaranda mimosifolia</i>	L	Poisonous if ingested
Japanese Persimmon	<i>Diospyros kaki</i>	S	Large red or orange edible astringent fruit
Jerusalem-Thorn, Retama, Lluvia de Oro, Crown of Thorns*	<i>Parkinsonia aculeata</i>	S	Wildlife food
Kentucky Coffee Tree	<i>Gymnocladus dioicus</i>	L	Upright tree; fine textured foliage
La Coma, Caimito	<i>Sideroxylon celastrina</i>	S	Wildlife food; nesting for birds
Lace Bark Elm	<i>Ulmus parvifolia</i>	L	Showy exfoliating bark
Lacey Oak	<i>Quercus glaucooides</i>	S-M	Peachy leaves in spring turning Blue-green and back to peach in fall
Mexican Buckeye	<i>Ungnadia speciosa</i>	M	Mottled gray/brown bark, poisonous seeds
Mexican Plum	<i>Prunus mexicana</i>	S	Fall color
Mexican Sycamore	<i>Platanus mexicana</i>	L	Adapted to dry, rocky, alkaline soils
Montezuma Bald Cypress, Sabino, Ahuehuete	<i>Taxodium mucronatum</i>	L	Specimen tree; frequently cultivated in parks and gardens
Pecan	<i>Carya illinoensis</i>	L	Produces edible pecan nuts
Pomegranate	<i>Punica granatum</i>	M	Edible: Fruit, leaves, seeds
Redbud	<i>Cercis</i> sp.	S-M	Heart-shaped leaves; reddish-purple buds
Rough Leaf Dogwood	<i>Cornus drummondii</i>	M	Attracts butterflies
Royal Paulownia, Empress Tree	Royal Paulownia, Empress Tree (<i>Paulownia tomentosa</i>)	M-L	Heart-shaped leaves; showy violet flowers
Soapberry, Western Soapberry, Jaboncillo *	<i>Sapindus drummondii</i>	M-L	Shade tree; large yellow cluster flowers
Staghorn Sumac	<i>Rhus typhina</i>	S	Brilliant fall color; clusters of small red fruit
Sugar Hackberry, Palo Blanco, Southern Hackberry*	<i>Celtis laevigata</i>	L	Shade; wildlife food
Texas Paloverde, Paloverde	<i>Parkinsonia texana</i>	S	Attractive clusters of yellow flowers
Texas Persimmon, Chapote, Mexican Persimmon*	<i>Diospyros texana</i>	S	Wildlife food
Texas Pistache	<i>Pistacia texana</i>	S	Wildlife food
Texas Red Oak	<i>Quercus buckleyi</i> , <i>Quercus texana</i>	S-M	Fall color; reddish-brown acorns
Texas Redbud	<i>Cercis canadensis</i> var. <i>texensis</i>	S	Showy magenta flowers

Common Names	Scientific Name	Size	Comments
Vitex, Chaste Tree	Vitex agnus-castus	S	Aromatic; showy summertime flowers
Wright Acacia, Uña de Gato	Acacia wrightii	M	Wildlife food

Evergreen (S – 15-25 ft; M – 26-40 ft; L – over 40 ft)

Common Names	Scientific Name	Size	Comments
Afghan Pine	Pinus eldarica	L	Windbreak
Aleppo Pine	Pinus halapensis	L	Short needles, massive lateral branches
Anacahuite, Anacahuita, Mexican Olive Tree*	Cordia boissieri	S	Flowers most of the year
Arizona Cypress	Cupressus arizonica	M-L	Conifer; pyramidal
Bay Laurel	Laurus nobilis	S-M	Aromatic evergreen tree
Black Cherry	Prunus serotina	L	Fragrant white flowers
Canaert Redcedar	Juniperus virginiana	M	Compact; pyramidal
Chinese Juniper	Juniperus chinensis	S-L	Popular evergreen; gardens/parks
Chinese Photinia	Photinia serratifolia, Photinia serrulata	M	Hedge/privacy screen
Cork Oak	Quercus suber	L	Leathery/ovate to elliptical
Deodar Cedar	Cedros deodora	L	Silver-green color
Escarpment Live Oak	Quercus fusiformis, Quercus virginiana var. fusiformis	M	Shade tree
Huisache	Acacia minuata, A. farnesiana, A. smallii	M	Intensely fragrant
Italian Cypress	Cupressus sempervirens	L	Tall, dark green columns
Italian Stone Pine	Pinus pinea	L	
Japanese Black Pine	Pinus thunbergii	S	Rounded small tree; adapted to alkaline soils
Japanese Ligustrum	Ligustrum lucidum	M-L	Fast growing
Japanese Loquat	Eriobotrya japonica	M	Fragrant flowers. Seed is poisonous if ingested
Live Oak	Quercus virginiana	L	Shade tree
Mexican Ponciana, Tabachin del Monte, Mexican Caesalpinia	Caesalpinia mexicana	S	Attracts hummingbirds
Mexican White Oak, Monterrey Oak	Quercus polymorpha	L	Hardy; resistant to oak wilt
Nellie R. Stevens Holly	Ilex	S	Broadleaf, specimen, red berry
Pinyon Pine, Mexican Pinyon	Pinus cembroides	L	Rounded cones with thick scales
Sandpaper Tree, Anaqua *	Ehretia anacua	M-L	White flower clusters
Southern Waxmyrtle	Myrica cerifera	S	Olive green leaves; specimen tree
Texas Ebony, Ebano*	Pithecellobium ebano, P. flexicaule	M	Bird nesting

Common Names	Scientific Name	Size	Comments
Texas Mountain Laurel, Mescalbean*	<i>Sophora secundiflora</i>	S	Showy fragrant purple leaves
Variegated Pittosporum	<i>Pittosporum tobira variegata</i>	S	Glossy gray-green leaves; small white flowers

Palm Trees (S- up to 10 ft; L - over 10 ft)

Common Names	Scientific Name	Size	Comments
California Washingtonia, California Fan Palm, Petticoat Palm	<i>Washingtonia filifera</i>	L	Fan-leafed, full-sun elliptical black fruit "berries"
Dwarf Palmetto	<i>Sabal minor</i>	S	Trunkless or short trunk; fan-like leaves
Mexican Fan Palm (Washingtonia robusta)	Mexican Fan Palm (Washingtonia robusta)	L	100 ft. tall
Palmetto Palm	<i>Sabal Palmetto</i>	L	Salt and frost tolerant
Texas Palmetto, Texas Sabal, Palma de Macharos, Texas Palmetto, Sabal Palm*	<i>Sabal texana, Sabal mexicana</i>	L	Only native Texas palm; tall columnar palm; shiny green to yellowish leaves

SHRUBS

Dwarf (under 3 ft)

Common Names	Scientific Name	Leaf Type	Comments
Calderona, Ratany*	<i>Krameria ramosissima</i>	Deciduous	Densely branched shrub
Dwarf Yaupon Holly	<i>Ilex vomitoria nana</i>	Deciduous to Evergreen	Asymmetrical, dense, rounded
False Broomweed, Monte de Conejo*	<i>Ericameria austrotexana</i>	Deciduous	Aromatic, invasive
Fern Acacia	<i>Acacia angustissima</i>	Deciduous	Thornless shrub or small tree
Japanese Garden Juniper	<i>Juniperus procumbens</i>	Evergreen	Tough; many varieties
Purple Coneflower, Black Sampson	<i>Echinacea angustifolia</i>	Deciduous	Borders, meadows, butterfly gardens; used medicinally

Small (3-5 ft)

Common Names	Scientific Name	Type	Comments
Apache Plume	<i>Fallugia paradoxa</i>	Semi-evergreen	White rose flowers
Autumn Sage*	<i>Salvia greggii</i>	Semi-evergreen	Mounds; many flower colors
Catclaw Sensitive Briar	<i>Schrankia nuttallii</i>	Perennial	Vine-like; curved briars; wildlife food
Cottoneasters	Cottoneaster, Rosaceae	Evergreen	Bird food
Desert Lantana*	<i>Lantana macropoda</i>	Deciduous	Aromatic
Dwarf Burford Holly	<i>Ilex cornuta rotunda burfordii</i>	Evergreen	Glossy green foliage
Dwarf Chinese Holly	<i>Ilex cornuta rotunda</i>	Evergreen	Glossy green foliage
Dwarf Pittosporum	<i>Pittosporum tobira wheeleri</i>	Evergreen	Glossy dark green leaves

Common Names	Scientific Name	Type	Comments
False Mesquite	Calliandra conferta	Semi-evergreen	Showy blooms; airy foliage
Flame Acanthus	Anisacanthus quadrifidus var. wrightii	Deciduous	Red or orange blooms; attracts hummingbirds
Flowering Quince	Chaenomeles japonica	Deciduous	Spring blooming (red, pink, white or orange)
Germander Wood Sage*	Teucrium canadense	Evergreen	Pink and white flowers; dry shady gardens
Indian Hawthorne	Raphiolepis indica	Evergreen	Spring flowering; blue berries in fall
Inland Ceanothus	Ceanothus ovatus	Deciduous	Rounded and dense with upright stems
Japanese Boxwood	Buxus japonica	Evergreen	
Knife-Leaf Condalia, Costilla*	Condalia spathulata	Evergreen	Wildlife food
Lantana, Hierba de Cristo	Lantana urticoides	Deciduous	Wildlife food; aromatic; showy flowers
Mexican Fiddlewood, Boxthorn Fiddlewood*	Citharexylum brachyanthum	Deciduous	Bird cover and food
Mexican Oregano	Poliomintha longiflora	Semi-Evergreen	Semi-woody; used for culinary purposes
Nandina Compact	Nandina Domestica Compacta	Evergreen	Reddish foliage and red fall berries
Prostrate Rosemary	Rosmarinus officinalis	Evergreen	Groundcover; attractive to bees, butterflies, and birds
Rosemary	Rosmarinus officinalis	Evergreen	Fragrant blue flowers
Rouge-Plant, Coralito, Pigeonberry*	Rivina humilis	Evergreen	Ground cover; showy red berries; bird food
Tea Rose	Rosa adorata	Deciduous	Long blooming; pest resistant; variety
Thrysus Dalea*	Dalea scandens	Evergreen	Compact and upright with showy yellow flowers
Tropical Sage, Mirto, Scarlet Sage*	Salvia coccinea	Evergreen	Attracts hummingbirds, butterflies; red/pink blooms
Vine Ephedrine, Popote, Mormon Tea*	Ephedra antisysphilitica	Evergreen	Green, yellow-green or gray stems appear leafless

Medium (6-10 ft)

Common Names	Scientific Name	Type	Comments
Agarito, Palo Amarillo*	Mahonia trifoliata	Evergreen	Bird food
Anacacho Orchid Tree	Bauhinia congesta	Semi-Evergreen	White flower clusters
Apes-Earring, Tenaza*	Pithecellobium pallens	Evergreen	Fragrant white flowers
Barbados Cherry, Manzanita*	Malpighia glabra	Evergreen	Pink flowers; red fruit
Berlandier Mimosa, Espina de Vaca*	Mimosa berlandieri	Deciduous	Accent plant; wildlife food
Blackbrush, Chaparro Prieto*	Acacia rigidula	Deciduous	Fragrant

Common Names	Scientific Name	Type	Comments
Blue Sage, Mejorana*	<i>Salvia ballotaeflora</i>	Deciduous	Accent plant; herb gardens
Bridal Wreath Spirea	<i>Spirea cantoniensis</i> , <i>S. reevesiana</i>	Deciduous	White, showy flowers
Brushy Lippia*	<i>Lippia alba</i>	Deciduous	Aromatic; medicinal
Bush Holly, Coronilla*	<i>Xylosma flexuosa</i>	Evergreen	Whitish, nectar-filled flowers
Catclaw Acacia, Uña de Gato*	<i>Acacia greggii</i>	Deciduous	Wildlife food; rock garden
Cenizo, Purple Sage*	<i>Leucophyllum frutescens</i>	Semi-evergreen	Showy flowers; butterfly food
Chilipiquin*	<i>Capsicum annuum</i>	Deciduous	Wildlife food
China Rose	<i>Rosa chinensis</i>	Deciduous	Various flower colors
Common Beebush, Vara Dulce, Whitebrush*	<i>Aloysia gratissima</i>	Deciduous	Delicate; fragrant white flower
Coyotillo*	<i>Karwinskia humboldtiana</i>	Evergreen	Spineless, woody; toxic
Creosote Bush, Gobernadora*	<i>Larrea tridentata</i>	Evergreen	Attracts hummingbirds
Desert Olive, Chaparral Blanco, Panaleo, Narrowleaf Forestiera*	<i>Forestiera angustifolia</i>	Evergreen	Wildlife food
Desert Yaupon, Capul*	<i>Schaefferia cuneifolia</i>	Evergreen	Wildlife food
Dwarf Pomegranate	<i>Punica granatum</i>	Deciduous	Orange flowers
Dwarf Waxmyrtle	<i>Myrica pusilla</i>	Evergreen	Aromatic
Eleagnus	<i>Eleagnus fruitlandi</i>	Evergreen	Grayish-green foliage
Esperanza (Yellow Bells)	<i>Tecoma stans</i> var. <i>angustatum</i>	Deciduous	Showy yellow flowers
Four-wing Saltbrush, Costillas de Vaca*	<i>Atriplex canescens</i>	Evergreen	Wildlife food
Glossy Abelia	<i>Abelia grandiflora</i>	Evergreen	Bronze foliage and white flowers
Goatbush, Amargosa, All-thorn Goat-Bush*	<i>Castela erecta</i> , <i>texana</i>	Perennial	Wildlife cover; medicinal
Gray Cotoneaster	<i>Cotoneaster glaucophylla</i>	Evergreen	Sprawling shrub; dusty gray foliage
Heavenly Bamboo	<i>Nandina</i>	Evergreen	Reddish foliage and red fall berries
Hog Plum, Texas Colubrina*	<i>Colubrina texensis</i>	Deciduous	Wildlife food; fragrant blooms
Indigo Bush	<i>Amorpha fruticosa</i>	Deciduous	Windbreak; insect repellent; stunning purple/orange flowers
Italian Jasmine	<i>Jasminum humile</i>	Evergreen	Sprawling; yellow summer flowers
Lotebush, Clepe*	<i>Ziziphus obtusifolia</i>	Deciduous	Wildlife food
Mermaid Rose	<i>Rosa x bracteaeta</i>	Semi-deciduous	Fragrant, pale yellow flowers; vigorous climber; pest resistant

Common Names	Scientific Name	Type	Comments
Mountain Sage, Royal Sage	Salvia regia	Deciduous	Full blooming, attracts hummingbirds
Pride of Barbados	Poinciana pulcherrima	Deciduous	Attractive to bees, butterflies, and birds
Primrose Jasmine	Jasminum mesnyi	Evergreen	Lemon-yellow, unscented flowers
Rockrose	Cistus	Deciduous	Pink or purple flowers
Rose of Sharon Shrub Althea	Hibiscus syriacas	Deciduous	Variety of edible flowers
Snake-Eyes, Putina*	Phaulothamnus spinescens	Deciduous	Transparent, eye-like fruit; good bird cover
Soapbush, Guayacan*	Guajacum angustifolium	Evergreen	Showy purple flower
Southwest Bernardia, Oreja de Raton*	Bernardia myricifolia	Semi-evergreen	Bird food; unusual foliage
Texas Colubrina, Guayule, Hog Plum	Colubrina texensis	Deciduous	Wildlife food
Texas Kidneywood, Vara Dulce*	Eysenhardtia texana	Deciduous to Semi-deciduous	Wildlife food
Texas Torchwood, Chapotillo*	Amyris texana	Evergreen	Aromatic
Tree Morning Glory*	Ipomoea carnea fistulosa	Deciduous	Profuse flowers
Vanhoutte Spirea	Spiraea x vanhouttei	Deciduous	Profuse white flowers; rounded-top fountain shape
Willow Leaf Heimia, Hachinal*	Heimia salicifolia	Deciduous	Yellow flowers; medicinal
Winter Honeysuckle	Lonicera fragrantissimo	Deciduous	Fragrant; white flower clusters in winter
Wolfberry, Tomatillo	Lycium berlandieri	Deciduous	Leafless until winter; blue, lavender or white flowers; wildlife food
Yellow Plumbago	Galphimia glauca, Thryallis glauca	Evergreen	Forms a dense and twiggy mass covered in light green oblong leaves

Large (over 10 ft)

Common Names	Scientific Name	Type	Comments
All Thorn	Koeberlinia spinosa	Deciduous	Green spine-tipped branches
American Holly	Ilex opaca	Evergreen	Pyramidal; spine-tipped leaves
Baretta*	Helietta parvifolia	Evergreen	Endangered species
Berlandier Acacia*	Guajillo, Acacia berlandieri	Semi-Evergreen	Fragrant flowers
Brasil, Capul Negro, Bluewood*	Condalia hookeri	Evergreen	Wildlife food
Cameron Forestiera*	Forestiera texana	Deciduous	

Common Names	Scientific Name	Type	Comments
Common Oleander	Nerium oleander	Evergreen	Ornamental; poisonous; Summer blooming; many colors available
Evergreen Sumac*	Rhus virens sempervirens	Evergreen	Edible/fruit drink; fall color
Firebush	Hamelia patens	Evergreen	Attracts hummingbirds
Fraser Photinia	Photinia x fraseri	Evergreen	Red new foliage
Green Pittosporum	Pittosporum Tobira	Evergreen	
Lady Banksia	Rosa banksia	Evergreen	Yellow or white single flowers
Lime Prickly Ash, Uña de Gato	Zanthoxylum fagara	Evergreen	Attractive to bees, butterflies, and birds
Littleleaf Sumac, Correosa, Desert Sumac	Rhus microphylla	Deciduous	Rounded dense shrub; bird food
Mexican Redbud	Cercis canadensis var. mexicana	Deciduous	Fragrant flower
Ocotillo	Fouquieria splendens	Deciduous	Velvet texture with sharp spines
Oriental Arborvitae	Platycladus orientalis	Evergreen	Dense, conical shape
Possumhaw	Ilex decidua	Deciduous	Widest ranging of all Texas hollies; adapts to wide range of soil conditions
Quihoui Privet	Ligustrum quihoui	Deciduous	White flowers; round blue-black fruit
Roemer Acacia	Acacia Roemeriana	Deciduous	White balls of fragrant white flowers; pinkish flat beans
Rose of Sharon, Shrub Althea	Hibiscus syriacus	Deciduous	Large colorful flowers
Spiny Hackberry, Granejeno*	Celtis pallida	Evergreen	Wildlife food; green/white flowers
Texas Mulberry	Morus microphylla	Deciduous	
Texas Pistache	Pistacia texana	Evergreen	Small shiny leaves; seeds in clusters
Texas Randia, Crucillo*	Randia aculeata	Evergreen	Exuberantly fragrant flowers
Twisted Acacia, Huisachillo*	Acacia schaffneri	Evergreen	Dense; wildlife food
Waxleaf Ligustrum	Ligustrum japonicum	Evergreen	Attractive foliage; spring flowers (unpleasant perfume)
White-Thorn Acacia	Acacia constricta	Deciduous	White thorns; yellow aromatic puffball flowers
Willow Leaf Heimia, Hachinal*	Heimia salicifolia	Deciduous	Small dark green leaves; yellow flowers
Windmill Palm	Trachycarpus fortunei	Evergreen	Accent tree
Yaupon, Youpon Holly*	Ilex vomitoria	Evergreen	Bird food; showy fruit
Yellow Bird of Paradise	Caesalpinia gilliesii	Evergreen	Attracts hummingbirds

SUCCULENTS

Common Names	Scientific Name	Comments
Century Plant	<i>Agave americana</i>	Wildlife; sharp-pointed spines
Hen And Chicks	<i>Sempervivum</i> spp.	Rock Gardens
Maguay Cenizo, Rough Leaved Agave *	<i>Agave scabra</i>	Accent plant; spiny, rough leaves
Oreja de Perro, Woolly or Woody Crinklemat*	<i>Tiquillia canescens</i>	Cactus garden; wooly upper stems and woody lower stems; pink flowers
Sotol, Desert Spoon	<i>Dasyilirion leiophyllum</i>	Accent plant
Spanish Dagger, Yucca, Palma Pita*	<i>Yucca treculeana</i>	Accent plant; straight/stiff leaves; wildlife food source
Variegated Maguay*	<i>Agave americana</i> var. <i>milleri</i> forma <i>marginata</i>	Accent plant; stripes along margins of each leaf

VINES

Common Names	Scientific Name	Type	Comments
Blue Passion Vine, Corona de Cristo*	<i>Passiflora foetida</i>	Deciduous	Edible fruits/leaves. Unpleasant aroma
Carolina Jessamine	<i>Gelsemium sempervirens</i>	Evergreen	Yellow; bushy; compact flowers
Common Morning Glory	<i>Ipomoea purpurea</i>	Deciduous	Invasive; purple flower
Common Trumpet creeper; Improved Trumpet Vine	<i>Campsis radicans</i>	Deciduous	Rampant, woody; large orange flowers
Confederate Jasmine	<i>Trachelosperum jasminoides</i>	Evergreen	Fragrant white spring flowers
Coral Honeysuckle	<i>Lonicera sempervirens</i>	Semi-Evergreen	Red Blooms
Coral Vine, Mexican Creeper; Queen's Wreath	<i>Antigonon leptopus</i>	Evergreen	Rose-pink flowers in late summer/fall
Fiddleleaf Morning Glory, Railroad Vine, Goat-Foot	<i>Ipomoea Pescaprae</i>	Evergreen	Funnel-shaped flowers; pinkish lavender with purple red throats
Fig Ivy	<i>Ficus pumila</i> (repens)	Evergreen	Clings to walls
Japanese Honeysuckle	<i>Lonicera japonica</i>	Evergreen	Colorful; fragrant
Passion Vine, Corona de Cristo*	<i>Passiflora suberosa</i>	Deciduous	Informal groundcover; low-climbing
Rosa x	<i>Rosa x fortuniana</i>	Evergreen	Climber; fragrant white flowers
Trumpet Vine	<i>Camsis Radicans</i>	Deciduous	Orange flowers in summer and fall; fast growing
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Deciduous	Clinging; fall color
Wisteria	<i>Wisteria</i> sp.	Evergreen	Stunning bloomer; fragrant flowers

*Currently on display at the Lamar Bruni Vergara Environmental Science Center.
[Texas native plants in bold.]

Sources:

Caesar Kleberg Wildlife Research Institute, South Texas Natives Plant List

City of Laredo Tree Ordinance, Table 1: Recommended Trees for the Laredo Region

Native Texas plants: landscaping region by region / Sally and Andy Wasowski – 2nd ed.

San Antonio Water System Watersaver Plant list

Texas Agricultural Extension Service, Xeriscape Landscape Water Conservation. Plants selected for South Texas Region and those adapted to most Texas areas.

Texas Forest Service, Texas Planting Guide, Recommended Trees for Webb County.

Texas Parks and Wildlife Department: Texas Plant Information Database. Plants selected for Ecological Distribution- South Texas Plains, Physical Form- all available physical forms, Topographic Tolerance- Upland, Bottomland, pH Tolerance- Slightly Alkaline, Highly Alkaline.

Texas Urban Landscape Guide, a group initiative combining efforts between the Texas Cooperative Extension, the Texas Nursery and Landscape Association and the Texas Water Development Board.

The Lamar Bruni Vergara Environmental Science Center Suggested Plant List for Home Landscaping.

Trees, Shrubs, & Cacti of South Texas / James H Everitt, Lynn Drawe, Robert I. Lonard. - Rev. ed., 2002