

Chapter 30

WATER, SEWERS AND SEWAGE DISPOSAL*

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ARTICLE I. WATER CONSERVATION

Sec. 30-1. Findings and objectives.

(a) The city council hereby makes the following findings:

- (1) The city of Killeen is the trustee of the city's domestic water supply.
- (2) Recent population, economic growth, and drought-like conditions in the city and its environs have impacted and will likely continue to impact the city's water utility service.
- (3) The general welfare of the citizens of Killeen and its environs require that the water resources available to the city be utilized with maximum efficiency.
- (4) Further population and economic growth and drought-like conditions in the city and its environs, without water conservation efforts, may detrimentally affect the city's domestic water supply, adverse to the public health, safety, welfare, and economic development.

(b) The city council is desirous of adopting appropriate water conservation and drought contingency rules and regulations for the purpose of ensuring adequate potable water availability through the implementation of water conservation technologies.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

* **Charter reference**—Powers relative to water and sewer systems, §§ 16, 123.

Cross references—Building and construction regulations, Ch. 8; health and human services, Ch. 13; solid waste, Ch. 24.

State law reference—Municipal utility systems, V.T.C.A., Local Government Code § 402.001.

Sec. 30-2. Scope; emergency and water management/public education, and opportunity for public involvement.

(a) A city of Killeen water conservation and drought contingency plan is established.

(b) The city of Killeen will periodically provide the public with information about the plan, including information about the conditions under which each stage of the plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of a utility bill insert as well as postings on the city's website.

(c) Opportunity for the public to provide input into the preparation of the plan was provided by the city of Killeen by means of including a request for input and comment with utility bills as well as postings on the city's website.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-3. Declaration of policy, purpose, and intent.

It is declared that, because safe, high quality drinking water is a precious resource, the general welfare requires that the water resources available to the city be put to the maximum beneficial use to the extent to which they are capable, and that the waste or unreasonable use, or unreasonable method of use of water be prevented, and the conservation of water is to be extended with a view as to its reasonable and beneficial use in the interests of the people of the city and for the public health and welfare. (Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-4. Targets for gallons per capita water use rate.

(a) The city's five and ten year goal is to not exceed a per capita water use rate of 140 gallons.

(b) If the per capita water use rate exceeds 140 gallons, the city of Killeen will enact additional water conservation measures in accordance with the recommendations outlined by the Brazos G Water Planning Group 2006 Regional Water Plan for those municipalities that exceed a per capita water use rate of 140 gallons. Such additional water conservation measures includes but is not limited to adopting programs addressing landscape irrigation and establishing guidelines requiring more efficient plumbing fixtures.

(Ord. No. 06-64, § I, 6-13-06)

Sec. 30-5. Application.

The provisions of this article apply to all persons, customers, and owners of property who use or allow the use of city water wherever situated. (Ord. No. 98-46, § I, 6-30-98)

Sec. 30-6. Water loss; unaccounted uses of water; meter testing/replacement programs.

The city shall adopt a program to monitor and reduce water loss, determine and control unaccounted uses of water, and establish a meter testing and replacement program. The city shall adopt a program using standards set forth by the American Water Works Association as guidance. (Ord. No. 06-64, § I, 6-13-06)

Sec. 30-7. Coordination with regional water planning groups.

The service area of the city of Killeen is located within the Brazos G Regional Water Planning Group (RWPG). The city of Killeen has provided a copy of the city’s plan to the Brazos G Regional Water Planning Group. (Ord. No. 06-64, § I, 6-13-06)

Sec. 30-8. Implementation.

The city manager, or the manager’s designee, in consultation with the director of the public works department may implement the applicable provisions of this article on his determination that the implementation is necessary to protect the public health, welfare, or safety. (Ord. No. 98-46, § I, 6-30-98)

Sec. 30-9. Notice requirements.

Notice of implementation and termination of each stage shall be provided prior to the implementation or termination of each stage of the water restriction program by posting notice on the city’s website, publication in a local newspaper, and local publication on cable access. The notice shall contain the following information:

- (1) the date restrictions will begin;
- (2) the circumstances that triggered the restrictions;
- (3) the stages of response and explanation of the restrictions to be implemented; and,
- (4) an explanation of the consequences for violations.

(Ord. No. 06-64, § I, 6-13-06)

Sec. 30-10. Definitions.

For the purpose of this article, the following definitions shall apply unless context clearly indicates or requires a different meaning.

Director shall mean the director of the public works department or his designee.

Designated water day except as otherwise defined shall mean a day in which a particular customer is permitted to use water outdoors for specified uses. The designated water day is determined as follows:

Last digit of address	Days of month
0 & 9	5, 10, 15, 20, 25, 30
1 & 2	1, 6, 11, 16, 21, 26
3 & 4	2, 7, 12, 17, 22, 27
5 & 6	3, 8, 13, 18, 23, 28
7 & 8	4, 9, 14, 19, 24, 29

Owner means any individual, association, nonprofit corporation, professional association, joint stock company, corporation, proprietorship, or joint venture, having a freehold interest in the real property.

Plan shall mean the city of Killeen water conservation and drought contingency plan unless the context states otherwise.

Swimming pool means any structure, basin, chamber, or tank including hot tubs, containing an artificial body of water for swimming, diving, or recreational bathing, and having a depth of two (2) feet or more at any point.

Water enforcement officer means the code enforcement division of community services or any employees from other divisions of the city of Killeen who is appointed by the city manager to assist in the enforcement of this ordinance.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-11. Compliance; guidelines.

(a) No customer of or person who uses or purchases water from the city water and wastewater utility may knowingly make, cause, use, or permit the use of water received from the city for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this article, or in an amount greater than that use permitted by the conservation stage then in effect in accordance with this article.

(b) Except as provided by section 30-13, the stage 1 use management criteria is in effect from May 1 to September 30 of each year. The city manager may promulgate guidelines to assist in determining when the other conservation stages are to be implemented and terminated. The city manager shall update the guidelines when, in his/her opinion, changed conditions of the utility system require the update. The city manager shall include in the guidelines a calendar system designating allowed days for outdoor water use by customers. The guidelines shall be available for inspection at the city secretary's office and the public works department office during normal business hours.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-12. Stage 1—water management/public education and voluntary conservation.

(a) Customers of or persons who obtain water directly or indirectly from the city are encouraged to voluntarily limit the amount of water used from May 1 to September 30 of each year to that amount essential for health, business, and outdoor water use, by complying with sections 30-13(b)(1) and (c).

(b) The city shall make reasonable efforts to inform and educate the public about the importance of voluntary compliance with the water conservation efforts.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-13. Stage 2—mandatory water use management.

(a) Water reduction targets to be achieved during the implementation of stage 2 shall be a five percent reduction in daily water demand. In addition to the application of stage 2 described in subsection (b), the city will implement stage 2 when any one of the selected triggers are reached.

(1) Supply-based triggers shall be when total city storage capacity reaches 75% of

maximum storage or when the wholesale service provider initiates their stage 2, whichever occurs first.

- (2) The demand or capacity-based trigger shall be when total daily demand expressed as a percentage of pumping capacity reaches and maintains 85% for three consecutive days.

(b) From May 1 to September 30 of each year when there is an announcement by the city manager of stage 2, the following restrictions shall apply to all customers of, or persons who use water directly or indirectly from the city, except those customers that use treated wastewater effluent or raw water for the uses described below.

- (1) All outdoor irrigation by hose end sprinklers, soaker hoses, or drip irrigation may occur only between the hours of 12:00 midnight to 10:00 a.m. and 7:00 p.m. to 12:00 midnight. All outdoor irrigation of vegetation by permanently installed automatic irrigation systems may occur only between the hours of 12:00 midnight to 10:00 a.m. Irrigation by hand-held hoses or hand-held buckets is permitted any time. The time restrictions do not apply to the irrigation of commercial plant nurseries; however, these establishments shall curtail all nonessential water use.
- (2) The washing of automobiles, trucks, trailers, boats, airplanes, or other type of mobile equipment is prohibited except on designated water days between the hours of 12:00 midnight to 10:00 a.m. and 7:00 p.m. to 12:00 midnight. The washing, when allowed, must be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. The nozzle must be removed when the hose is not in use. The washing of each individual automobile, truck, trailer, boat, airplane, or any other type of mobile equipment in violation of the terms and conditions of this restriction constitutes a separate violation under this article. However, this restriction does not apply to the washing of vehicles or mobile equipment when conducted on the immediate premises of a commercial car wash, commercial service station, or fleet service center. Furthermore, this restriction does not apply to the washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment (such as garbage trucks and vehicles to transport food and perishables) when the washing is necessary on a more regular and frequent basis in order to protect the health, safety, and welfare of the public. Charity car washes are prohibited.
- (3) The watering of the ground around foundations to prevent foundation cracking is prohibited except on designated water days between the hours of 12:00 midnight and 10:00 a.m.
- (4) The operation of any ornamental fountain or other structure making similar use of water is prohibited.
- (5) The use of water from fire hydrants shall be limited to firefighting-related activities or other activities necessary to maintain the health, safety, and welfare of the citizens of Killeen; however, routine flushing of fire hydrants for other than health and safety reasons is prohibited. This restriction does not apply to businesses which require the use of water for land development and building construction processes. By written approval from the public works department, the businesses may purchase and draw water from fire hydrants designated for that use by the public works department.
- (6) Street washing using potable water from hydrants is prohibited. Street washing may occur if reclaimed water is used.

(c) The following uses are prohibited:

- (1) Failing to repair a controllable leak, such as broken sprinkler heads and leaking valves or faucets.
- (2) Washing sidewalks, driveways, parking areas, streets, tennis courts, patios, or other paved areas, except to alleviate immediate health or fire hazards.
- (3) Operating a permanently installed irrigation system with broken heads, with heads that are out of adjustment that spray more than 10% of the spray on streets or parking lots, or that is misting.
- (4) Allowing water to run off a property during irrigation, car washing, or any other use of water or allowing water to pond in the street or parking lot to a depth greater than $\frac{1}{4}$ of an inch.

(d) The stage 2 restrictions do not apply to the following uses of water:

- (1) The necessary use of water, other than for landscaping irrigation, by a governmental entity in pursuit of its governmental functions for the benefit of the public, such as for capital improvement construction projects;
- (2) The necessary use of water, other than for landscape irrigation, for land development (such as roadway base preparation, flushing of utility lines, dust control, concrete and asphalt work) and for building construction processes;
- (3) The necessary use of water for repair of water distribution facilities, residential and commercial plumbing, and permanently installed landscape irrigation systems;
- (4) The use of water necessary to irrigate large, landscaped areas in commercial and institutional establishments as authorized by the terms and conditions of an approved compliance agreement recommended by the review board and approved by the city manager. The review board may not approve a compliance agreement if the terms and conditions do not meet or exceed the purpose and intent of the stages 2, 3, and 4 of this water conservation plan.
- (5) The use of water necessary for the installation or establishment of specially permitted landscaping in new residential and commercial development should be postponed if at all possible. If the installation cannot be postponed, the irrigation schedule for the first 30 days after installation or notification to the city may not exceed the following frequency of irrigation. Watering must take place during the permitted hours. If the landscape cannot be sustained based on this schedule, installation must be postponed.
 - a. Day 1-10: once a day
 - b. Day 11-20: once every other day
 - c. Day 21-30: once every third day
 - d. After day 30, schedule no longer applies and the standard restrictions apply
- (6) The use of water under the approved terms and conditions of a variance recommended by the review board and approved by the city manager.

(e) All restaurants are prohibited from serving water to their customers except when specifically requested by the customer.

(f) The code enforcement division of community services shall be responsible for enforcement of this stage.

(g) Aside from the dates set forth in subsection (b), stage 2 of the plan may end when all of

the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of stage 2, stage 1 becomes operative.

(h) Within five days of the implementation of stage 2, the city shall notify the Texas Commission on Environmental Quality.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-14. Stage 3—emergency water use management.

(a) Water reduction targets to be achieved during the implementation of stage 3 shall be a five percent reduction in daily water demand from that set forth under stage 2. The city shall implement stage 3 when any one of the selected triggers are reached.

(1) Supply-based triggers shall be when total city storage capacity reaches 50% of maximum storage or when the wholesale service provider initiates their stage 3, whichever occurs first.

(2) The demand or capacity-based trigger shall be when total daily demand expressed as a percentage of pumping capacity reaches and maintains 90% for three consecutive days.

(b) The city manager may implement the following restrictions to apply to all customers of or persons who use water directly or indirectly from the water utility of the city in the areas designated by the city manager. The restrictions do not apply to any customer using treated wastewater effluent or raw water for the uses described below. All elements of stage 2 remain in effect in stage 3 except that:

(1) All outdoor irrigation by hose end sprinklers, soaker hoses, or drip irrigation may occur only between the hours of 12:00 midnight to 10:00 a.m. and 7:00 p.m. to 12:00 midnight on designated water days. All outdoor irrigation of vegetation by permanently installed automatic irrigation systems may occur only between the hours of 12:00 midnight to 10:00 a.m. on designated water days. Irrigation by hand-held hoses or hand-held buckets is permitted any time.

(2) All washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring on the immediate premises of a commercial car wash, commercial service station, or fleet service center are prohibited.

(c) The washing of automobiles, trucks, trailers, boats, airplanes, or other types of mobile equipment on the immediate premises of a commercial car wash, commercial service station, or fleet service center may occur between 12:00 noon and 8:00 p.m.

(d) The filling, refilling, or adding of potable water to swimming pools is prohibited. However, this restriction does not apply to swimming pools equipped with filtration and a recirculation system that includes the gutter drains or that are not using water from the city's water distribution system. However, swimming pools may not be filled if there are unrepaired leaks.

(e) Commercial plant nurseries may use only hand-held hoses, hand-held watering cans, or drip irrigation.

(f) No new landscapes of any type may be installed.

(g) The uses of water allowed during stage 2 under section 30-13(d)(5) and (6) are prohibited unless specifically authorized by a variance or permit granted specifically under stage 3. Under stage 3, the board shall not issue a permit for the use of water necessary for the installation or establishment of landscaping in new, residential, and commercial development.

(h) For purposes of enforcement of this conservation stage, the city manager may appoint employees from other divisions to assist the code enforcement division.

(i) Stage 3 of the plan may end when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of stage 3, stage 2 becomes operative.

(j) Within five days of the implementation of stage 3, the city shall notify the Texas Commission on Environmental Quality.
(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-15. Stage 4—emergency water use management.

(a) Water reduction targets to be achieved during the implementation of stage 4 shall be a five percent reduction in daily water demand from that set forth in stage 3. The city will implement stage 4 when any one of the selected triggers are reached.

(1) Supply-based triggers shall be when total city storage capacity reaches 25% of maximum storage or when the wholesale service provider initiates their stage 4, whichever occurs first.

(2) The demand or capacity-based trigger shall be when total daily demand expressed as a percentage of pumping capacity reaches and maintains 95% for three consecutive days.

(b) The city manager may implement the following restrictions to apply to all customers of or persons who use water directly or indirectly from the water utility of the city in areas designated by the city manager. The restrictions do not apply to any customer using treated wastewater effluent or raw water for the uses described below. All elements of stage 3 remain in effect in stage 4 except that: hand-held hoses and hand-held watering cans may be used for outdoor irrigation of vegetation only between the hours of 6:00 a.m. to 10:00 a.m. and 7:00 p.m. to 10:00 p.m. on designated water days. Irrigation, including but not limited to foundation watering, using permanently installed irrigation systems, hose end irrigation, or drip irrigation is prohibited.

(c) For purposes of enforcement of this conservation stage, the city manager may appoint employees from other divisions to assist the code enforcement division.

(d) Stage 4 of the plan may end when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of stage 4, stage 3 becomes operative.

(e) Within five days of the implementation of stage 4, the city shall notify the Texas

Commission on Environmental Quality.
(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-16. City manager's authority to impose additional restrictions.

The city manager may at any time implement mandatory water restrictions in addition to those restrictions named in the conservation plan to protect the public health, safety, and welfare in the event of unusual operations events, catastrophic occurrences, or severe weather events. The city manager may implement mandatory restrictions by public announcement, and the restrictions are effective immediately on the making of the public announcement. (Ord. No. 98-46, § I, 6-30-98)

Sec. 30-17. Inspection.

(a) The city may conduct inspections for the purpose of ascertaining compliance with this article and causing to be corrected any conditions which would constitute a violation of this article. Water enforcement officers shall be specified at each conservation stage and shall have the authority to enforce the provisions of this article.

(b) Nothing herein shall be construed to hold the city or any officer, employee, or representative of the city responsible for any damage to persons or property by reason of making or failing to make an inspection.
(Ord. No. 98-46, § I, 6-30-98)

Sec. 30-18. Right of entry.

(a) Whenever necessary for the purpose of investigating or enforcing the provisions of this article, or whenever any water enforcement officer has reasonable cause to believe that there exists in any structure or upon any premises any condition which constitutes a violation of this article, said officers may enter such structure or premises at all reasonable times to inspect the same, or to perform any duty imposed upon any said respective officers by law; provided that if such structure or premises be occupied, the officer shall first present proper credentials and request entry and further provided, that if such structure or premises is unoccupied, the officer shall first make a reasonable attempt to contact a responsible person from such firm or corporation and request entry. If entry is refused, the officer seeking entry shall have recourse to every remedy provided by law to secure entry.

(b) If a customer is irrigating during a time period or on a day when irrigation is not permitted for the street address of that customer and a city worker cannot find any person at that street address to turn off the irrigation system, the city worker may enter the property and turn off the irrigation system.
(Ord. No. 98-46, § I, 6-30-98)

Sec. 30-19. Presumption of violation.

For purposes of this article, the person, corporation, or association in whose name the water utility of the city is or was last billed or who is receiving the economic benefit of the water supply is presumed to have knowingly made, caused, used, or permitted the use of water received from the city for residential, commercial, industrial, agricultural, governmental, or other

purpose, in a manner contrary to any provision of this article, or in an amount more than the use permitted by the conservation stage in effect, or in a manner contrary to the terms and conditions of a valid variance, permit, or compliance agreement issued by the review board, if the water has been used in a manner contrary to any provision of this article, or in an amount greater than the use permitted by the conservation stage in effect or in a manner contrary to the terms and conditions of a valid variance, permit, or compliance agreement issued by the review board. (Ord. No. 98-46, § I, 6-30-98)

Sec. 30-20. Stage 3 and 4 implementation and termination.

The director shall monitor the projected supply and demand for water by its customers on a daily basis and shall recommend to the city manager the extent of the conservation required through the implementation or termination of particular conservation stages in order for the public works department to prudently plan for and supply water to its customers. The city manager may order that the appropriate stage of water conservation be implemented or terminated in accordance with the applicable provisions of this article. This order shall be made by public announcement and takes effect immediately on the announcement. (Ord. No. 98-46, § I, 6-30-98)

Sec. 30-21. Review board; review of hardship, special cases, and alternative plans.

(a) Upon implementation of stages 2, 3, or 4, a review board consisting of the assistant city manager or designee, public works director or designee, and city attorney or designee shall meet weekly to review hardship, special cases that cannot strictly comply with this article to determine whether the cases warrant a variance, permit, or compliance agreement. The review board shall make recommendations to the city manager.

(b) The review board is also authorized to recommend alternative plans. Public and private schools, colleges, hospitals, and the city parks may submit alternative plans which identify water use plans which will be implemented for each conservation stage. If an alternative plan is approved by the city manager, the applicant shall comply with the terms of the plan and is exempt from restrictions stated in this ordinance. Violations of the terms of an alternative plan may be enforced as a violation of this ordinance.

(c) The review board shall make its recommendation no later than the 3rd calendar day after receipt of a properly completed “application for variance or alternative plan” form. The city manager shall issue a final decision within 1 calendar day after receiving the review board’s recommendation. A variance may be recommended and an alternative plan may be recommended only for reasons of economic hardship. In this section, economic hardship means a threat to an individual’s or business’ primary source of income. Inconvenience or the potential for damage to landscaping shall not constitute an economic hardship. However, actual significant loss of landscaping may constitute an economic hardship. A dirty motor vehicle is not an economic hardship.

(d) Until the city manager has acted on an application, the applicant must comply with all provisions of this chapter.

(e) If the city manager determines there is an economic hardship, the city manager shall grant a variance and authorize the implementation of equitable water use restrictions by the

applicant that further the purposes of this ordinance. The special water use restrictions authorized by the city manager in each special or hardship case must be set forth in the terms of the variance. If the variance is granted or an alternative plan is approved, the customer must keep a copy of the variance or the alternative plan in a location that is accessible and visible to the public.

(f) A fee of \$500.00 for each variance or alternative plan shall be assessed to defray administrative costs under this section. The fee may be waived upon a showing of financial hardship.

(Ord. No. 98-46, § I, 6-30-98; Ord. No. 06-64, § I, 6-13-06)

Sec. 30-22. Expiration; revocation.

(a) A variance granted by the city manager under stage 2 will expire on its own terms and will become void and invalid on implementation of stage 3 or 4. A separate application for a variance must be submitted for each stage.

(b) Any person, corporation, or association that is issued a variance or alternative plan must provide proof of the variance or alternative plan on demand by any water enforcement officer. On conviction of a person, corporation, or association of violating any provision of this article, the city manager may revoke any variance or alternative plan previously granted. The city manager shall notify the applicant of the proposed revocation five calendar days before taking the action, and an applicant must be given the opportunity to be heard by the city manager before action is taken.

(Ord. No. 98-46, § I, 6-30-98)

Sec. 30-23. Penalty.

(a) A person commits an offense if the person performs an act prohibited by this chapter or fails to perform an act required by this chapter. Each instance of a violation of this chapter is a separate offense.

(b) Proof of a culpable mental state is not required for a conviction of an offense under this chapter.

(c) An offense under this chapter is a class C misdemeanor, punishable by a fine not to exceed \$2,000.00. Prosecution of an offense under subsection (a) of this section does not preclude other enforcement remedies under this chapter. The use of other enforcement remedies under state law or this chapter does not prevent prosecution for a violation of this chapter under subsection (a) of this section.

(d) For repeat violations of this chapter, water service may be restricted or disconnected.

(e) The city's authority to seek injunctive or other civil relief available under the law is not limited by this section.

(Ord. No. 98-46, § I, 6-30-98)

Secs. 30-24--30-25. Reserved.

ARTICLE II. WATER SYSTEM

Sec. 30-26. Penalty.

Unless stated otherwise, violations of this article shall be punished as provided in section 1-8.

Sec. 30-27. Application for service.

All applicants for service attachments to the mains for the purpose of conducting water into any premises must be made in writing by the party desiring such attachment; such application must be made in writing to the superintendent of the waterworks, and if premises are occupied by rentee or lessee, application must be accompanied by consent of owner. (Code 1963, Ch. 14, art. 1, § 1)

Sec. 30-28. Use of water restricted.

All applications for water service must state fully and truly the purpose for which the water is required, and no water shall be used except for the purpose or purposes stated in the application, and no applicant shall permit others to use water for any purpose except those stated. In case of misrepresentation or diversion to other use, the supply shall be cut off, unless applicant pays a higher rate as provided in this article. If the water is cut off, applicant shall pay a fee of ten dollars (\$10.00) when water is again turned on, in addition to the rate applicable to the purpose for which the water is being used. (Code 1963, Ch. 14, art. 1, § 2 [Ord. No. 81-37, § 1, 8-11-81])

Sec. 30-29. Stopcocks and gates.

Consumer shall cause to be placed at his own expense, in his attachment not more than twelve (12) inches from the curb, a stopcock and stop box, and no water will be supplied unless this is done. Such stops and boxes shall be kept in repair by the consumer, and shall be flush with the sidewalk. Every service pipe must also be furnished with stop and waste cock inside the premises and below the action of frost, so that water can be cut off and drained from the pipes. The manipulation of stopcocks shall in all cases be done only by an employee of waterworks. (Code 1963, Ch. 14, art. 1, § 5)

Sec. 30-30. Access to water distribution system.

Any employee of the city water department shall have access at all reasonable hours to any part of the water distribution system wherever located. (Code 1963, Ch. 14, art. 1, § 6 [Ord. No. 82-60, § 1, 10-12-82])

Sec. 30-31. Right to shut off water.

The waterworks reserves the right to cut off water in the mains without notice, for any purpose, at any time. (Code 1963, Ch. 14, art. 1, § 7)

Sec. 30-32. Consumer must prevent waste.

Consumers are required to keep their sprinklers, hydrants, faucets, valves, hoses and all other water apparatus in good condition, and all waterways closed when not in use. Water will not be

furnished where there are defective or leaky water closets, faucets or other fixtures, except at advanced rates. (Code 1963, Ch. 14, art. 1, § 8)

Sec. 30-33. Several consumers to one connection.

In all cases where water is to be supplied to several parties through one (1) stopcock, the waterworks shall contract with only one (1) of the parties, and this party shall be responsible for violation of rules by others on his line. (Code 1963, Ch. 14, art. 1, § 9)

Sec. 30-34. Water for special use.

No continual flow of water shall be allowed except by special permission. When water is discharged into tanks they must be tight and supply pipes furnished with good cocks. Steam boilers taking water from service pipes and depending on the pressure will do so at the risk of the owner. Steam plants and other commercial enterprises will be furnished water through meters only. (Code 1963, Ch. 14, art. 1, § 10)

Sec. 30-35. Plumbing done by bonded plumber.

All plumbing must be done by a bonded plumber of the city, and water will not be furnished to customers whose pipes are laid by other plumbers. (Code 1963, Ch. 14, art. 1, § 11)

Sec. 30-36. Destruction, injury to, or interference with water distribution system.

It shall be unlawful for any person to knowingly or intentionally destroy, injure, interfere with, or tamper with, in any manner, or attempt to destroy, injure, interfere with or tamper with in any manner, any reservoir, tank, main, fountain, fireplug, hydrant, stopcock, valve, pipe connection, meter, meter box or other apparatus pertaining to the water distribution system of the city. Any person who violates this section is guilty of a misdemeanor and shall be fined two thousand dollars (\$2,000.00). Each additional day in violation of this ordinance constitutes a separate offense. (Code 1963, Ch. 14, art. 1, § 12 [Ord. No. 82-60, § 1, 10-12-82]; Ord. No. 06-81, § I, 7-11-06)

Sec. 30-37. Taking water unlawfully.

Anyone who takes or uses any water from the city waterworks for any purpose without having previously contracted for the taking or use of such water is guilty of a misdemeanor and shall be fined five hundred dollars (\$500.00). Anyone who takes or uses water from the waterworks for any purpose after having been cut off because of a violation of rules, without the permission of the Water and Sewer Department, shall be subject to the above penalty. Each additional day in violation of this ordinance constitutes a separate offense. (Code 1963, Ch. 14, art. 1, § 13; Ord. No. 06-81, § I, 7-11-06)

Sec. 30-38. Care of hydrants by police.

It shall be the duty of every officer to look after all fire hydrants, leakage of water pipes, and faulty connections and report the same to the water commission. It shall be their duty to see that consumers are using water as agreed upon in their applications. (Code 1963, Ch. 14, art. 1, § 14)

Sec. 30-39. Connections larger than one inch.

All customers having connections with mains larger than one (1) inch shall at their own expense furnish and keep in repair a gate or globe valve next to the main, which shall be under the exclusive control of the city waterworks. No water will be supplied until this section is complied with, and water will be cut off if valve gets out of repair, and will not be cut on until customer has repaired same and paid all expenses of disconnection and reconnection. (Code 1963, Ch. 14, art. 1, § 15)

Secs. 30-40--30-60. Reserved.

ARTICLE III. SEWERS AND SEWAGE DISPOSAL*

DIVISION 1. GENERALLY

Secs. 30-61--30-70. Reserved.

DIVISION 2. DISCHARGE RESTRICTIONS

Sec. 30-71. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

City shall include any authorized person acting in behalf of the city.

Approving authority shall mean the city council or its duly authorized deputy, agent, or representative.

B.O.D. shall mean the quantity of oxygen expressed in parts per million by weight, utilized in the biochemical oxidation of organic matter under standard laboratory conditions for five (5) days at a temperature of twenty (20) degrees Celsius. The laboratory determinations shall be made in accordance with procedures set forth in "Standard Methods."

Building drain shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys to the building sewer, beginning three (3) feet outside the inner face of the building wall.

Building sewer shall mean the extension from the building drain to the sewer or other place of disposal.

Contractual agreement shall mean the agreed charges which are made on those persons discharging industrial wastes which in the opinion of the approving authority requires special consideration.

Domestic sewage shall mean water-borne wastes normally discharging into the sanitary

***State law references**—Authority to regulate sewers, V.T.C.A., Local Government Code §§ 214.012, 214.013; on-site sewage disposal systems, V.T.C.A., Health and Safety Code § 366.001 et seq.

conveniences of dwellings (including apartment houses and hotels), office buildings, factories and institutions, free of storm and surface waters and industrial wastes.

Garbage shall mean solid wastes and residue from the preparation, cooking and dispensing of food, and from the handling, storage and sale of food products and produce.

Grease trap waste shall mean waste from traps in the sewer system at hotels/motels, restaurants and similar food preparation establishments or operations.

Grit trap waste shall mean waste from interceptors placed in the drains prior to entering the sewer system at maintenance and repair shops, automobile service stations, and car washes, laundries, and other similar establishments.

Hazardous metal shall include each of the following metals in its elemental state and any of its compounds expressed as that metal: arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver and zinc.

Industrial waste shall mean water-borne solids, liquids or gaseous wastes resulting from and discharged, permitted to flow or escaping from any industrial, manufacturing or food processing operation or process or from the development of any natural resource, or any mixture of these with water or domestic sewage as distinct from normal domestic sewage.

Natural outlet shall mean any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

Normal domestic wastewater shall mean wastewater excluding industrial wastewater discharged by a person into sanitary sewers and in which the average concentration of total suspended solids is not more than one hundred twenty (120) mg/l and B.O.D. is not more than one hundred twenty (120) mg/l.

Parts per million shall mean a weight to weight ratio; the parts per million value multiplied by the factor 8.345 shall be equivalent to pounds per million gallons of water.

Person shall mean any and all persons, natural or artificial, including any individual, firm, company, industry, municipal or private corporation, association, governmental agency or other entente and agents, servants or employees.

pH shall mean the logarithm (base 10) of the reciprocal of the hydrogen ion concentration expressed in mols per liter. It shall be determined by one (1) of the procedures outlined in "Standard Methods."

Properly shredded garbage shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such degree that all particles shall be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch in any dimension.

Public sewer shall mean a sewer in which all owners of abutting properties shall have equal rights and interest controlled by public authority.

Sanitary sewer shall mean a sewer that conveys sewage or industrial wastes or a combination of both, and into which storm, surface and ground waters or unpolluted industrial wastes are not intentionally passed.

Septic tank waste shall mean waste or pumpings from septic tanks used by single or multiple residential units, schools, motels/hotels, restaurants and similar establishments to collect and treat sanitary wastes.

Sewage shall mean a combination of the water-carried waste from residences, business buildings, institutional and industrial establishments, together with such ground, surface and storm water as may be present.

Sewage service charge shall mean the charge made on all users of the public sewer system whose wastes do not exceed in strength the concentration values established as representative of normal sewage.

Sewage treatment plant shall mean any facilities, devices, and structures used for receiving and treating sewage from the city sanitary sewer system.

Sewage works shall mean all facilities for collecting, pumping, treating and disposing of sewage and industrial wastes and would include sewage, as well as the sewage treatment facilities.

Sewer shall mean a pipe or conduit for carrying sanitary sewage.

Sewerage shall mean the system of sewers and appurtenances for the collection, transportation and pumping of sewage and industrial wastes.

Standard methods shall mean the examination and analytical procedures set forth in the latest edition at the time of analysis of Standard Methods for the Examination of Water and Sewage, as prepared, approved and published jointly by the American Public Health Association, the American Water Works Association and the Federation of Sewage and Industrial Wastes Associations.

Storm sewer or *storm drain* shall mean a sewer which carries storm and surface waters and drainage but excludes sewage and polluted industrial wastes.

Stormwater runoff shall mean that portion of the rainfall that is drained into the sewers.

Surcharge shall mean the charge in addition to the charges agreed upon in the contractual agreement which is made on those persons whose waste loadings exceed the agreed maximum loadings on the contractual agreement.

Suspended solids shall mean solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in Standard Methods.

Unpolluted water or waste shall mean water or waste containing none of the following: free

of emulsified grease or oil; acids or alkalis, phenols or other substances imparting taste and odor in receiving water, toxic or poisonous substances in suspension; colloidal state or solution and noxious or otherwise obnoxious odorous gases. It shall contain not more than ten (10) parts per million each of suspended solids and B.O.D. The color shall not exceed fifty (50) parts per million.

Watercourse shall mean a channel in which a flow of water occurs, either continuously or intermittently.

(Code 1963, Ch. 14, art. 4, § 1 [Ord. No. 71-58, § 1, 11-8-71; Ord. No. 79-36, § 1, 8-14-79]; Ord. No. 93-96, § I, 10-12-93)

Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Sec. 30-72. Admission of industrial wastes.

(a) *Approval required.* Review and acceptance of the approving authority shall be obtained prior to the discharge into the public sewers of any wastes and waters having:

- (1) A five-day twenty-degree Celsius biochemical oxygen demand (B.O.D.) greater than two hundred fifty (250) ppm.
- (2) Suspended solids contain greater than three hundred (300) ppm.
- (3) Flow in excess of fifty thousand (50,000) gallons per day.

(b) *Pretreatment.* Where required, in the opinion of the approving authority, to modify or eliminate wastes that are harmful to the structures, processes or operation of the sewage disposal works, the person shall provide, at his expense, such preliminary treatment or processing facilities as may be determined necessary to render his wastes acceptable for admission to the public sewers.

(c) *Grease, oil and sand interceptors.* Grease, oil and sand interceptors shall be provided for the proper handling of liquid wastes containing grease in excessive amounts or any flammable wastes, sand and other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwellings. All interceptors shall be of a type and capacity approved by the approving authority and shall be located as to be readily and easily accessible for easy cleaning and inspection. Grease and oil interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight and equipped with easily removable covers which, when bolted in place, shall be gastight and watertight. Where installed, all grease, oil and sand interceptors shall be maintained by the owner, at his expense, in continuously efficient operation at all times.

(d) *Submission of information.* Plans, specifications and any other pertinent information relating to proposed preliminary treatment or processing facilities shall be submitted for approval of the approving authority prior to the start of their construction, if the effluent from such facilities is to be discharged into the public sewers.

(e) *Dilution prohibited.* The attainment of the specified levels simply by dilution, in the absence of treatment (that is, by use of extraneous or other wastewater intermixed to dilute a particular discharge) is specifically prohibited. The mercury level in the effluent stream from the facility in which a waste containing mercury originates shall be measured after the treatment and before any extraneous water or wastewater from any other source has been added.

(Code 1963, Ch. 14, art. 4, § 2 [Ord. No. 71-58, § 2, 11-8-71; Ord. No. 79-36, § 2, 8-14-79])

Sec. 30-73. Prohibitive discharges.

(a) No person shall discharge or cause to be discharged any stormwater, groundwater, roof runoff, subsurface drainage, downspouts, yard drains, yard fountain and ponds or lawn sprays into any sanitary sewer.

- (1) Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers or to a natural outlet approved by the approving authority.
- (2) Unpolluted processed water may be discharged upon prior written approval of the approving authority to a storm sewer or natural outlet or into the sanitary sewer system by an indirect connection whereby such discharge is cooled, if required, and flows into the sanitary sewer at a rate not in excess of three (3) gallons per minute, provided the waste does not contain materials or substances in suspension or solution in violation of the limits prescribed by this article.
- (3) In cases where, and in the opinion of the approving authority, the character of the sewage from any manufacturer or industrial plant building or other premises is such that it will damage the system or cannot be treated satisfactorily in the system, the approving authority shall have the right to require such user to dispose of such waste otherwise and prevent it from entering the system.

(b) No person shall discharge or cause to be discharged either directly or indirectly any of the following described substances, materials, waters or wastes:

- (1) Any liquid having a temperature higher than one hundred fifty (150) degrees Fahrenheit (sixty-five (65) degrees Celsius).
- (2) Any waters or wastes which contains wax, grease, or oil, plastic or other substance that will solidify or become discernibly viscous at temperatures between thirty-two (32) degrees to one hundred fifty (150) degrees Fahrenheit.
- (3) Any solids, liquids or gases which by themselves or by interaction with other substances may cause fire or explosion hazards, or in any other way be injurious to persons, property, or the operator of the sewage disposal works.
- (4) Any solids, slurries or viscous substances of such character as to be capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works, such as ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshlings, entrails, lime slurry, lime residues, slops, chemical residues, paint residues, or bulk solids.
- (5) Any garbage that has not been properly comminuted or shredded. If properly comminuted or shredded, then it may be accepted under provisions established in section 30-71.
- (6) Any noxious or malodorous substance, which either singly or by interaction with other substances is capable of causing objectionable odors, or hazard to life; or forms solids in concentrations exceeding limits established in section 30-72 or creates any other condition deleterious to structures or treatment processes; or requires unusual provisions, alteration, or expense to handle such materials.
- (7) Any waters or wastes having a pH lower than 6.0 or higher than 10.0 or having any

- corrosive property capable of causing damage or hazards to structures, equipment, or personnel of the sewage disposal works.
- (8) Any wastes or waters containing suspended or dissolved solids of such character and quantity that unusual attention or expense is required to handle such materials at the sewage treatment or in the public sewage works.
 - (9) Any waters or wastes containing a toxic or poisonous substance such as plating or heat treating wastes in sufficient quantity to injure or interfere with any sewage treatment process, to constitute a hazard to humans or animals, or to create any hazard in the receiving waters of the sewage treatment plant.
 - (10) Any cyanide greater than 1.0 milligram per liter, as CN.
 - (11) Any hexavalent chromium greater than 0.05 milligram per liter.
 - (12) Any trivalent chromium greater than 5.0 milligrams per liter.
 - (13) Any copper greater than 0.5 milligram per liter.
 - (14) Any nickel greater than 1.0 milligram per liter.
 - (15) Any cadmium greater than 0.05 milligram per liter.
 - (16) Any zinc greater than 1.0 milligram per liter.
 - (17) Any phenols greater than 0.005 milligram per liter.
 - (18) Any iron greater than 0.3 milligram per liter.
 - (19) Any tin greater than 0.1 milligram per liter.
 - (20) Any radioactive wastes greater than allowable releases as specified by current United States Bureau of Standards Handbook dealing with the handling and release of radioactivity.
 - (21) Any antimony greater than 0.01 milligram per liter.
 - (22) Any arsenic greater than 0.1 milligram per liter.
 - (23) Any barium greater than 1.0 milligram per liter.
 - (24) Any beryllium greater than 0.01 milligram per liter.
 - (25) Any bismuth greater than 0.5 milligram per liter.
 - (26) Any boron greater than 1.0 milligram per liter.
 - (27) Any chromium greater than 0.5 milligram per liter.
 - (28) Any cobalt greater than 1.0 milligram per liter.
 - (29) Any lead greater than 0.5 milligram per liter.
 - (30) Any manganese greater than 1.0 milligram per liter.
 - (31) Any mercury greater than 0.005 milligram per liter.
 - (32) Any molybdenum greater than 1.0 milligram per liter.
 - (33) Any selenium greater than 0.05 milligram per liter.
 - (34) Any silver greater than 0.05 milligram per liter.
 - (35) Any uranyl ion greater than 5.0 milligrams per liter.
 - (36) Any septic tank waste.
 - (37) Any grease trap waste.
 - (38) Any grit trap waste.

(c) Except in quantities or concentrations, or with provisions as stipulated herein, it shall be unlawful for any person to discharge waters or wastes to the sanitary sewer containing:

- (1) Free or emulsified oil and grease exceeding on analysis an average of one hundred (100) parts per million (eight hundred thirty-three (833) pounds per million gallons) of either or both or combinations of free or emulsified oil and grease, if, in the opinion of the approving authority it appears probable that such wastes:

- a. Can deposit grease or oil in the sewer lines in such manner to clog the sewers;
 - b. Can overload skimming and grease handling equipment;
 - c. Are not amenable to bacterial action and will therefore pass to the receiving waters without being affected by normal sewage treatment processes; or
 - d. Can have deleterious effects on the treatment process due to the excessive quantities.
- (2) Any radioactive wastes greater than the allowable releases as specified by current United States Bureau of Standards Handbooks dealing with the handling and releases of radioactivity.
- (3) Cyanides or cyanogen compounds capable of liberating hydrocyanic gas on acidification in excess of one-half (0.5) part per million by weight as CN in the wastes from any outlet into the public sewers.
- (4) Materials which exert or cause:
- a. Unusual concentrations of solids or composition; as for example, in total suspended solids of inert nature. (Such as fuller's earth) and/or in total dissolved solids (such as sodium chloride or sodium sulfate),
 - b. Excessive discoloration,
 - c. Unusual biochemical oxygen demand or an immediate oxygen demand,
 - d. High hydrogen sulfide content, or
 - e. Unusual flow and concentration shall be pretreated to a concentration acceptable to the city, if such wastes can cause damage to collection facilities, impair the processes, incur treatment cost exceeding those of normal sewage, or render the water unfit for stream disposal or industrial use. Where discharge of such wastes to the sanitary sewer are not properly pretreated or otherwise corrected, the approving authority may reject the wastes or terminate the service of water and/or sanitary sewer, require control of the quantities and rates of discharge of such wastes, or require payment of surcharges for excessive cost for treatment provided such wastes are amenable to treatment by normal sewage plant facilities operated by the city.

(Code 1963, Ch. 14, art. 4, § 3 [Ord. No. 71-58, § 3, 11-8-71]; Ord. No. 93-96, § II, 10-12-93)

State law reference(s)--Authority to regulate discharges into sewer system, V.T.C.A., Water Code § 26.176; water pollution control duties of cities, V.T.C.A., Water Code § 26.177.

Sec. 30-74. Control of admissible wastes.

(a) *Application for permit.* Any person desiring to deposit or discharge any industrial waste mixture into the sewers or sewer works of the city, or any sewer connected therewith, or who is now so doing, shall make application to the approving authority for a permit therefor upon application forms to be obtained from the city.

(b) *Control chambers.* Any person discharging or desiring to discharge an industrial waste mixture into the sewers or sewer works of the city, or any sewer connected therewith, shall provide and maintain in a suitable accessible position on his premises, or such premises occupied by him, an inspection chamber or manhole near the outlet of each sewer, drain, pipe, channel, or connection which communicates with any sewer or sewer works of the city or any sewer connected therewith. Each such manhole or inspection chamber shall be of such design and construction which will prevent infiltration by ground and surface waters or introduction of slugs

of solids by installation of screens with maximum openings of one (1) inch but of such sufficient fineness to prevent the entrance of objectionable slugs of solids to the sanitary sewage system and shall be so maintained by persons discharging wastes so that any authorized representative or employee of the city may readily and safely measure the volume and obtain samples of the flow at all times. Plans for the construction of control manholes or inspection chambers, including such flow measuring devices as may or may not be required, shall be approved by the approving authority prior to the beginning of construction.

(c) *Measurement of flow.* The water consumption during the previous month, as determined from the meter records of the water department, shall be the valid basis for computing the sewage flow, unless actual sewage flow is measured by a recording meter of a type approved by the approving authority. The persons shall install and maintain such device in proper condition to accurately measure such flow. Upon failure to do so, the water consumption shall be the basis for charges. When water is contained in a product or is evaporated or is discharged as unpolluted waste in an uncontaminated condition to surface drainage, an application may be made for a reduction in the volume of waste discharged to the public sewer, provided supporting data satisfactory to the approving authority is furnished. This data shall include a flow diagram, destination of water supply and/or waste, supported by submetering data installed on such process piping at the expense of the person.

(d) *Sampling of wastes.* Sampling of the effluent of waste discharges may be accomplished manually or by the use of mechanical equipment to obtain a composite sample which would be representative of the total effluent. Samples shall be taken at intervals to be established by the contractual agreement between the person and the approving authority, or at such intervals as determined by the approving authority as necessary to maintain a control over the discharges from the establishment. The method used in the examination of all bacteriological wastes to determine suspended solids, B.O.D. and prohibited wastes shall be those set forth in section 30-71.

(Code 1963, Ch. 14, art. 4, § 4 [Ord. No. 71-58, § 4, 11-8-71])

Sec. 30-75. Protection from damage.

No unauthorized person shall maliciously, willfully or negligibly break, damage, uncover, deface or tamper with any structure, appurtenances or equipment which is part of the municipal sewage works. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct. (Code 1963, Ch. 14, art. 4, § 5 [Ord. No. 71-58, § 5, 11-8-71])

Sec. 30-76. Contractual agreements.

Persons discharging industrial wastes, which in the opinion of the approving authority requires special consideration, will be required to enter into a contractual agreement with the city which will include the following:

- (1) Necessary provisions for pretreatment.
- (2) Maximum loads for treatment capacity:
 - a. Hydraulic--million gallons/day.
 - b. B.O.D.--lbs/day.

- c. Suspended solids--lbs/day.
- d. Grease--100 PPM (maximum permitted).

(3) The method of determining cost allocation of industrial waste charge will be computed by the following formula:

$$C_i = v_o V_i + b_o B_o + s_o S_i \quad \text{Where:}$$

C_i = Charge to industrial users, \$/yr.
 v_o = Unit cost of transport and treatment chargeable to volume, \$.072/1000 gal.
 b_o = Unit cost of treatment chargeable to B.O.D., \$.1234/lb.
 s_o = Unit cost of treatment (including sludge treatment) chargeable to suspended solids, \$0.1234/lb.
 V_i = Volume of wastewater from industrial users, gal/yr.
 B_i = Amount of B.O.D. from industrial users, lb/yr.
 S_i = Amount of suspended solids from industrial users, lb/yr.

(Code 1963, Ch. 14, art. 4, § 6 [Ord. No. 71-58, § 6, 11-8-71; Ord. No. 74-10, § 3, 3-11-74]; Ord No. 98-59, § I, 9-15-98; Ord. No. 99-74, § I, 9-14-99; Ord. No. 01-42, § I, 8-28-01)

Sec. 30-77. Billing.

(a) Industrial waste surcharges provided for in this division shall be included as a separate item on the regular bill for water and sewer charges and shall be paid monthly in accordance with the existing practices. Surcharges shall be paid at the same time that the water, sewer and sanitation charges of the person become due and payment for water, sewer and sanitation services shall not be accepted without payment also of sewer service charges and surcharges.

(b) Adjustment of charges may be allowed as follows:

- (1) The city shall adjust charges at least annually to reflect changes in the characteristics of wastewater based on the results of sampling and testing.
- (2) Increases in charges shall be retroactive for two (2) billing periods and shall continue for six (6) billing periods unless subsequent tests determine that the charge should be further increased.
- (3) The city shall review at least annually the basis for determining charges and shall adjust the unit treatment costs in the formula to reflect increases or decreases in wastewater treatment costs based on the previous year's experience.
- (4) The city shall bill the discharge by the month and shall show industrial waste charges as a separate item on the regular bill for water and sewer charges. The discharger shall pay monthly in accordance with practices existing for payment of sewer charges.

(Code 1963, Ch. 14, art. 4, § 7 [Ord. No. 71-58, § 7, 11-8-71; Ord. No. 74-10, § 4, 3-11-74])

Sec. 30-78. Penalty for failure to pay bills.

Failure to pay monthly bills for water and/or sanitary sewer services when due or failure to pay the established sewer charge for industrial waste when due or repeated discharge of prohibited waste to the sanitary sewer shall be sufficient cause to disconnect any and all services to the water and/or sanitary sewer mains of the city and the same penalties and charges now or hereafter provided for by the ordinances of the city for failure to pay the bill for water service

when due shall be applicable in like manner in case of failure to pay the established surcharge for industrial waste discharged to the sanitary sewer mains as established in section 30-76. (Code 1963, Ch. 14, art. 4, § 8 [Ord. No. 71-58, § 8, 11-8-71])

Sec. 30-79. Powers and authority of enforcing agents.

(a) The approving authority bearing credentials and identification shall be permitted to gain access to such properties as may be necessary for the purpose of inspection, observation, measurement, sampling and testing, in accordance with provisions of these regulations. Any person found to be violating any provision of this division shall be served by the city with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. Any person who shall continue any violation beyond the time limit shall be guilty of violation of the service contract and shall be summarily disconnected from the sanitary sewer and/or water service. Such disconnection and reconnection would be at the total expense of the customer.

(b) Where acids and chemicals, damaging to sewer lines or treatment processes are released to the sewer causing rapid deterioration of these structures or interfering with proper treatment of sewage, the approving authority is authorized to immediately terminate services by such measures as are necessary to protect the facilities.
(Code 1963, Ch. 14, art. 4, § 9 [Ord. No. 71-58, § 9, 11-8-71])

Sec. 30-80. Penalty.

(a) Unless stated otherwise, violations of this division shall be punished as provided in section 1-8.

(b) Any person violating any of the provisions of this division shall become liable to the city for any expense, loss or damage occasioned by the city by reason of such violation.
(Code 1963, Ch. 14, art. 4, § 10 [Ord. No. 71-58, § 10, 11-8-71])

Secs. 30-81--30-100. Reserved.

ARTICLE IV. RATES AND CHARGES

DIVISION 1. GENERALLY

Sec. 30-101. Classes of customers.

Water and sewer customers are classified as follows:

- (1) *Code (A1) residential.* Single-family homes and duplexes where each unit has its own water meter; inside city limits.
- (2) *Code (A2) commercial.* All business not manufacturing a product, mainly engaged in retail trade, and not otherwise classified; inside city limits.
- (3) *Code (A3) apartments.* Five (5) or more living units served by a single meter or combination of meters in a circulating effect. Each meter to be billed individually; inside city limits.
- (4) *Code (A4) mobile home parks.* Mobile homes grouped in a park; inside city limits.

- (5) *Code (A5) apartments.* Four (4) or less units served by a single meter; inside the city limits.
 - (6) *Code (A6) West Bell water supply.* Contracts with the city of Killeen, to purchase water, for resale outside the city limits.
 - (7) *Code (A7) fireplug (city-owned).* To be used inside the city limits only.
 - (8) *Code (A8) outside city commercial.* All businesses not manufacturing a product, mainly engaged in retail trade or wholesale trade not otherwise classified; outside the city limits.
 - (9) *Code (A9) industrial.* Manufacturing products mainly for wholesale trade but possible retail.
 - (10) *Code (A0) outside city residential.* Single-family homes, duplexes, trailer homes, etc., where each unit has its own meter; outside city limits.
- (Code 1963, ch. 14, art. 1, § 17(IV); Ord. No. 90-81, § I, 9-18-90)

Sec. 30-102. Tap charges to be paid by applicant.

(a) *When tap charges are due.* The water and sewer tap charges shall be paid by the applicant at the time the application is made for a building or finish out permit, whichever occurs first. In addition to the water and sewer tap charges, the meter deposit shall be required before a certificate of occupancy is issued. However, no application for water and/or sewer taps shall be accepted until construction plans have been approved by the department of public works.

(b) *How tap charges are assessed.* Tap charges shall be assessed per connection, based upon the following classifications:

- (1) Residence: one (1) connection.
- (2) Multi-family: one (1) connection for each living unit.
- (3) Commercial: one (1) connection for each certificate of occupancy issued or meter, whichever is greater.
- (4) Industrial: as authorized by the city council.
- (5) Mobile home park & manufactured home subdivisions: one (1) connection for each one (1) living unit.

(c) *Irrigation meters.* Regardless of the connection classification, irrigation meters are subject only to water tap fee charges.

(Code 1963, Ch. 14, art. 1, § 4(A) [Ord. No. 86-31, § 3, 5-13-86; Ord. No. 86-64, §§ 1,2, 9-9-86; Ord. No. 86-76, § 1, 9-23-86]; Ord. No. 96-16, § I, 3-12-96; Ord. No. 96-37, § I, 5-14-96; Ord. No. 97-13, § I, 2-11-97)

Sec. 30-103. Base charges for water and sewer taps.

(a) The following base charges shall be made for water and sewer taps:

(1) Water base tap charges:

- a. 3/4" tap \$350.00
- b. 1" tap 477.00
- c. 1½" tap 862.00
- d. 2" tap 1,375.00
- e. Construction tap, actual cost plus minimum rate of three hundred dollars

(\$300.00) per month, with meter serviced by city every four (4) months.

- (2) The minimum size meter installation shall be three-quarters-inch service and three-quarters-inch by five-eighths-inch meter. All meter installation applications for meter and service larger than one (1) inch shall be sized by the water department. Applications for meters larger than one (1) inch shall be accompanied by information indicating fixtures by number and type to be serviced through each meter for proper meter sizing calculations.
- (3) All sewer base tap charges shall be three hundred fifty dollars (\$350.00).
- (4) Base top charges for industrial establishments shall be determined by resolution of the city council.
- (5) All applicants for water and sewer service located outside the city limits shall pay double the tap charge applicable within the city.

(b) Repealed by Ord. No. 97-13, § II, 2-11-97.

(c) In addition to tap charges, a meter deposit shall be required before certificate of occupancy.

(Code 1963, Ch. 14, art. 1, § 4(B) [Ord. No. 86-31, § 3, 5-13-86; Ord. No. 86-64, §§ 1,2, 9-9-86; Ord. No. 86-76, § 1, 9-23-86]; Ord. No. 93-77, § I, 9-14-93; Ord. No. 96-16, § I, 3-12-96; Ord. No. 04-71, § I, 8-24-04)

Sec. 30-104. Water and sewer extension fund.

Repealed by Ord. No. 97-58, § II, 10-28-97.

Sec. 30-105. Deposit for water meters.

(a) The following charges shall be made for water meter deposits:

(1) *Residential meters:*

a. 3/4" and 5/8" meters	\$60.00
b. 1" meters	60.00
c. 1½" meters	150.00
d. 2" meters	200.00

(2) *Commercial meters:*

a. 3/4" and 5/8" meters	75.00
b. 1" meters	150.00
c. 1½" meters	200.00
d. 2" meters	300.00
e. 3" meters	400.00
f. 4" meters	500.00
g. 6" meters	700.00
h. 8" meters	900.00

(b) Any deposits that are not claimed within two (2) years after the final disconnection of

water shall be handled in a manner consistent with State law for unclaimed monies.

(c) All residential customers who maintain their utility account without incurring a penalty for late payment for a period of twelve (12) months shall receive a refund of their deposit. Such refund shall be credited to the customer's utility account. If the customer incurs more than one (1) late charge during any subsequent twelve (12) month period, a deposit in the amount of the water meter deposit charge in effect at the time the penalty is incurred will be billed to the customer's account.

(Code 1963, Ch. 14, art. 1, § 16; Ord. No. 88-53, § I, 6-28-88; Ord No. 98-45; § I, 6-23-98; Ord. No. 00-67, § I, 8-29-00; Ord. No. 04-08, § I, 2-24-04)

Sec. 30-106. Miscellaneous charges.

The following charges shall be imposed for services and miscellaneous items:

- | | |
|--|----------|
| (1) Cutting off for repairs and turning back on 8:00 a.m. to 5:00 p.m.
Monday--Friday | \$15.00 |
| (2) Transferring services | \$25.00 |
| (3) Collection fee for delinquent accounts where service call is already being made | \$5.00 |
| (4) Late penalty--assessed if payment is not received by the close of business on the due date--the 15 th day from the billing date or mailing date | \$5.00 |
| (5) Delinquent account charge/reconnection fee--assessed if payment is not received by the close of business on the delinquent date--the 22 nd day from the billing date or mailing | \$20.00 |
| (6) Administrative handling of returned checks | \$30.00 |
| (7) Returned check late charge--assessed if returned check not redeemed by disconnect date--the 7 th day from mailing date | \$20.00 |
| (8) After hours service--unscheduled request received after 5:00 p.m.
Monday--Friday; also scheduled and unscheduled request for Saturdays, Sundays and legal holidays | \$30.00 |
| (9) When water service is turned on by anyone other than authorized water department personnel | \$50.00 |
| (10) If, after a water meter has been pulled, an attempt to obtain water from the city in any manner other than through a meter has been made | \$100.00 |
| (11) Delinquent garbage only late charge--assessed if payment is not received by discontinued date--the 22 nd day from the billing date or mailing date | \$5.00 |
| (12) New account fee | \$15.00 |
| (13) Meter check (when request is made by account holder and reading is determined to be correct) | \$15.00 |
| (14) Meter check (pull and test), if meter is not faulty | \$41.50 |
| (15) Annual itemized bill, per account | \$3.00 |
| (16) Alphabetical listing of accounts | \$35.00 |

(Code 1963, Ch. 14, art. 1, § 17; Ord. No. 89-44, §§ IV, V, 6-13- 89; Ord. No. 90-81, § I, 9-18-90; Ord. No. 00-67, § II, 8-29-00; Ord. No. 04-71, § I, 8-24-04)

Sec. 30-107. Payment for water, sewer, and garbage; delinquency.

(a) *Due date.* All bills for water, sewer, and garbage shall be due and payable on or before fifteen (15) days from the billing date specified on the bill. Failure to receive such bill shall not excuse the customer's failure to pay the same before it becomes delinquent. Failure to pay for water, sewer, or garbage when due shall forfeit the right of the customer to use water and have garbage collection, and water and garbage service shall be cut off. Water and garbage service shall not be recontinued until all bills and fees are paid.

(b) *Delinquent accounts.* All unpaid bills for water, sewer and garbage shall become delinquent at the end of the fifteenth business day after the billing date specified on the bill, except when the fifteenth day is on a Saturday, Sunday or legal holiday during which the collection office of the water, sewer and garbage department is closed, in which case such unpaid bill shall become delinquent at the end of the next succeeding business day.

(c) *Late notice.* As soon as practicable after water, sewer and garbage bills become delinquent, a notice to each customer shall be prepared and mailed to such customer at his last known address. A list of such customers shall be retained in the utility collections office as evidence for all purposes.

(d) *Late penalty.* Delinquent accounts at the end of the fifteenth business day after the billing date, except when the fifteenth day is a Saturday, Sunday or legal holiday, will be assessed a five-dollar late penalty.

(e) *Disconnection.* If any water, sewer or garbage customer fails or refuses to pay water, sewer or garbage bill, together with all other unpaid charges due by him, before the close of the twenty-second day after the same becomes due, all water of such customer shall be disconnected on the twenty-third day after such bill becomes due or as soon thereafter as practicable, except that, when such customer or his family contacts the utilities collection department and has approved a signed written request to extend payment. The utilities collection manager or designee may postpone disconnecting such customer's water service. If such bill and penalties are not paid within such extended time, all water connections of such customer shall be promptly disconnected and a delinquent service fee assessed. A twenty-dollar (\$20.00) delinquent service fee will be charged to each and every account remaining unpaid on the twenty-third (23rd) day after the billing date. If the reconnection or connection of water service is requested to be made, and is made, on a Saturday, Sunday or legal holiday, from 8:00 a.m. to 5:00 p.m., or between the hours of 5:01 p.m. and 6:59 p.m. Monday through Friday, an additional fee of thirty dollars (\$30.00) shall be charged. All deposits, fees, charges and bills for water, sewer and garbage service together with penalties due by such customer shall be paid prior to the connection. (Example: \$34.39 (net bill) + \$5.00 (delinquent penalty) + \$20.00 (delinquent fee) = \$59.39 (gross bill). Example: \$34.39 (net bill) + \$5.00 (late penalty) + \$20.00 (delinquent fee) + \$30.00 (after hours service charge) = \$89.39 (gross bill).

(f) The utility collections manager may, upon ascertaining that there have been no late payments received from an account holder within the previous 12-month period, waive the assessment of one (1) late penalty and one (1) delinquent fee. In no instance shall there be more than one late penalty and one delinquent fee waived per account holder during each 12-month period.

(Code 1963, ch. 14, art. 1, § 3 [Ord. No. 68-20, § 1, 7-22-68; Ord. No. 81-37, § 2, 8-11-81]; Ord.

No. 90-81, § I, 9-18-90; Ord. No. 00-67, § III, 8-29-00; Ord. No. 04-71, § I, 8-24-04)

Secs. 30-108--30-125. Reserved.

DIVISION 2. RATES

Subdivision A. General Provisions

Sec. 30-126. Manner of collection of rates.

The charges fixed in this division for water and sewer service shall be entered by the city comptroller in their respective amounts as charges against each such person, owner, occupant or lessee described herein on the water and sewer bill of such person, owner, occupant or lessee and the amount so fixed and charged shall be collected monthly. Should any person, owner, occupant or lessee of any place of abode or of any place of business fail or refuse to pay the charges fixed against him in his place of abode or his place of business when due, the city shall be authorized to cut off and disconnect the water and sewer services to his place of abode or place of business, until such fees shall be paid in full. (Code 1963, Ch. 14, art. 1, § 18 [Ord. No. 87-65, § 5, 9-8-87]; Ord. No. 89-69, § V, 9-19-89; Ord. No. 90-81, § II, 9-18-90)

Secs. 30-127--30-135. Reserved.

Subdivision B. Water Rates

Sec. 30-136. Assessed.

(a) The following water charges shall apply to all residential users for the consumption of water inside the city limits:

0 to 2,000 gallons - Meter size:	
5/8" & 3/4"	\$10.30
1"	\$11.51
1½"	\$14.52
2"	\$18.13
3"	\$26.58
4"	\$38.65
6"	\$69.69
8"	\$104.95
10"	\$147.17

Applicable to all meter sizes:	
2,001 to 25,000 gallons, per 1,000 gallons	\$2.80
Over 25,000 gallons, per 1,000 gallons	\$3.34

(b) The following water charges shall apply to all commercial users for the consumption of water inside the city limits:

0 to 2,000 gallons - Meter size:	
5/8" & 3/4"	\$10.71

1"	\$11.98
1½"	\$15.10
2"	\$18.86
3"	\$27.64
4"	\$40.20
6"	\$72.48
8"	\$109.26
10"	\$153.06

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons	\$2.91
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(c) The following water charges shall apply to all apartment, small apartment, and mobile home park users for the consumption of water inside the city limits:

0 to 2,000 gallons - Meter size:

5/8" & 3/4"	\$10.30
1"	\$11.51
1½"	\$14.52
2"	\$18.13
3"	\$26.58
4"	\$38.65
6"	\$69.69
8"	\$104.95
10"	\$147.17

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons	\$2.80
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(d) The water rates for all residential users outside the city limits shall be double the water rates for residential users inside the city limits:

0 to 2,000 gallons - Meter size:

5/8" & 3/4"	\$20.60
1"	\$23.02
1½"	\$29.04
2"	\$36.26
3"	\$53.16
4"	\$77.30
6"	\$139.38
8"	\$209.90
10"	\$294.34

Applicable to all meter sizes:

2,001 to 25,000 gallons, per 1,000 gallons	\$5.60
Over 25,000 gallons, per 1,000 gallons	\$6.68

(e) The water rates for all commercial users outside the city limits shall be double the water rates for commercial users inside the city limits:

0 to 2,000 gallons - Meter size:	
5/8" & 3/4"	\$21.42
1"	\$23.96
1½"	\$30.20
2"	\$37.72
3"	\$55.28
4"	\$80.40
6"	\$144.96
8"	\$218.52
10"	\$306.12

Applicable to all meter sizes:	
All over 2,000 gallons, per 1,000 gallons	\$5.82

(f) The water rates for all apartment, small apartment, and mobile home park users outside the city limits shall be double the water rates for apartment, small apartment, and mobile home park users inside the city limits:

0 to 2,000 gallons - Meter size:	
5/8" & 3/4"	\$20.60
1"	\$23.02
1½"	\$29.04
2"	\$36.26
3"	\$53.16
4"	\$77.30
6"	\$139.38
8"	\$209.90
10"	\$294.34

Applicable to all meter sizes:	
All over 2,000 gallons, per 1,000 gallons	\$5.60

(g) The meter rates for city-owned fireplugs are as follows:

0 to 2,000 gallons	\$26.58
All over 2,000 gallons, per 1,000 gallons	\$2.91

(h) The meter rates for Stonetree Golf Course irrigation:

All gallons, per 1,000 gallons	\$0.57
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(Code 1963, Ch. 14, art. 1, § 17(II); Ord. No. 89-69, § IV, 9-19-89; Ord. No. 90-81, § I, 9-18-90; Ord. No. 91-56, § I, 9-17-91; Ord. No. 92-62, § I, 9-8-92; Ord. No. 93-77, § II, 9-14-93; Ord. No. 98-59, § II, 9-15-98; Ord. No. 99-74, § II, 9-14-99; Ord. No. 00-67, § IV, 8-29-00; Ord. No. 01-42, § II, 8-28-01; Ord. No. 03-43, § I, 8-26-03; Ord. No. 04-71, § I, 8-24-04; Ord. No. 06-101, § I, 9-12-06; Ord. No. 09-058, § I, 9-15-09)

Secs. 30-137--30-150. Reserved.

Sec. 30-151. Rates.

(a) The wastewater use rates for all residential users shall be based on and calculated by the water meter consumption less three thousand (3,000) gallons minimum times the appropriate return flow factor times the cost for each unit of discharge plus the minimum charge. A flat rate of fifteen dollars and eighteen cents (\$15.18) shall be charged each account as a minimum charge for the first three thousand (3,000) gallons, with a charge of three dollars and twenty-five cents (\$3.25) for each one-thousand-gallon unit of discharge thereafter.

(b) The wastewater use rates for all commercial, small apartment, and apartment users shall be based on and calculated by the water meter consumption less three thousand (3,000) gallons minimum times the appropriate return flow factor times the cost for each unit of discharge plus the minimum charge. A flat rate of fifteen dollars and fifty-one cents (\$15.51) shall be charged each account as a minimum charge for the first three thousand (3,000) gallons, with a charge of three dollars and twenty-five cents (\$3.25) for each one-thousand-gallon unit of discharge thereafter. (Example: Commercial account: Usage 10,000 gallons minus 3,000 gallons = 7,000 gallons; 7,000 gallons x 90% flow factor = 6,300 gallons; 6,300 gallons x \$3.25 per 1,000 gallons = \$20.48 + \$15.51 (minimum charge) = \$35.99 (total charge).

(c) The following return flow factors will be applied for each class of sewer customer:

(1) Residential	100%
(2) Commercial	90%
(3) Outside city residential	200%
(4) Apartments, motels, etc.	90%
(5) Laundries and car wash	90%
(6) Industrial	90%
(7) Mobile home parks	100%
(8) Outside city commercial	180%

(d) The return flow in gallons is determined by multiplying the water meter consumption, less three thousand (3,000) gallons minimum, times the return flow factor for each specific classification (i.e., usage 10,000 gallons minus 3,000 gallons minimum = 7,000 gallons; 7,000 gallons x 90% flow factor = 6,300 gallons).

- (1) *Residential*. One hundred (100) percent of metered water up to ten thousand (10,000) gallons per month.
- (2) *Commercial*. Ninety (90) percent of metered water.
- (3) *Outside city residential*. Two hundred (200) percent of metered water up to ten thousand (10,000) gallons per month.
- (4) *Apartments, motels, etc.* Ninety (90) percent of metered water.
- (5) *Laundries and car wash*. Ninety (90) percent of metered water.
- (6) *Industrial*. Ninety (90) percent of metered water.
- (7) *Mobile home parks*. One hundred (100) percent of metered water up to ten thousand (10,000) gallons per unit.
- (8) *Outside city commercial*. One hundred eighty (180) percent of metered water.

(e) The wastewater rate shall be per one thousand (1,000) gallons and the minimum monthly

fee:

- (1) *Rate for single-family residential.* Fifteen dollars and eighteen cents (\$15.18) minimum charge for the first three thousand (3,000) gallons, plus three dollars and twenty-five cents (\$3.25) per thousand gallons thereafter, not to exceed ten thousand (10,000) gallons.
- (2) *Rate for commercial customers.* Fifteen dollars and fifty-one cents (\$15.51) minimum charge for the first three thousand (3,000) gallons, plus three dollars and twenty-five cents (\$3.25) per one thousand (1,000) gallons in excess of minimum.
- (3) *Rates for motels, two-family and multifamily residential.* Fifteen dollars and fifty-one cents (\$15.51) minimum charge for the first three thousand (3,000) gallons, plus three dollars and twenty-five cents (\$3.25) per one thousand (1,000) gallons in excess of minimum thereafter.
- (4) *Rate for mobile home parks.* Fifteen dollars and fifty-one cents (\$15.51) per unit minimum charge for the first three thousand (3,000) gallons per unit, plus three dollars and twenty-five cents (\$3.25) per one thousand (1,000) gallons in excess of minimum, not to exceed ten thousand (10,000) gallons per unit.

(Code 1963, Ch. 14, art. 1, § 17(I)(B)]; Ord. No. 89-69, § II, 9-19-89; Ord. No. 90-81, § I, 9-18-90; Ord. No. 91-56, § II, 9-17-91; Ord. No. 92-62, § II, 9-8-92; Ord. No. 93-77, § III, 9-14-93; Ord. No. 98-59, § III, 9-15-98; Ord. No. 99-74, § III, 9-14-99; Ord. No. 00-67, § V, 8-29-00; Ord. No. 01-42, § III, 8-28-01; Ord. No. 03-43, § II, 8-26-03; Ord. No. 04-71, § I, 8-24-04; Ord. No. 05-73, § I, 9-13-05; Ord. No. 06-101, § II, 9-12-06)

Sec. 30-152. Proof of discharge.

Any customer who disagrees with the return flow factors listed in section 30-152(b) shall, at his expense, prove the actual discharge or the correct factor. Upon approval of the city manager, the adjusted flow factor will be used to calculate the customer's sewer bill. (Code 1963, Ch. 14, art. 1, § 17(C))

Sec. 30-153. Discharges from sources other than metered water supply.

Because some sewer customers may have sources of water other than or in addition to city water, the water meter consumption will not accurately measure the return flow to the sewer. In such cases, meters or measuring devices meeting the approval of the city's director of public works must be installed by the customer on the sources of water not controlled by the city. Such devices must be accessible to the city for monthly reading and checking for proper operation, calibration and proper maintenance by the customer. (Code 1963, Ch. 14, art. 1, § 17(D))

Sec. 30-154. Charges for users outside city limits.

All persons connected to and using the sewer systems of the city which are located outside the city limits shall be charged rates to be determined by the city council. (Code 1963, Ch. 14, art. 1, § 17(E))

Sec. 30-155. Right to connect not guaranteed to users outside city limits.

No provision of this subdivision shall be construed as giving any person located, living or residing outside the corporate limits of the city the right to tie on or to use the sewer services of

the city or the appurtenances thereto. However, the city council may contract with any person for sewer service under such terms and conditions as may appear to the city council to be for the best interest of the city. (Code 1963, Ch. 14, art. 1, § 17(F))

Sec. 30-156. Charges due date; payments.

Sewer charges shall be due and payable monthly as water bills are paid to the city water department. (Code 1963, Ch. 14, art. 1, § 17(G))

ARTICLE V. CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION

DIVISION 1. GENERALLY

Sec. 30-157. Purposes.

The purposes of this article are to:

(a) Protect the city's potable water system from contamination or pollution by preventing contaminants and pollutants originating from customers' water systems from entering into the city's potable water system that may jeopardize the health, safety and welfare of the customers.

(b) Provide for a continuing program of cross-connection control and backflow prevention by requiring the installation of approved backflow prevention assemblies or methods as required by this article, the city plumbing code, the requirements of chapter 290, title 30 of the Texas Administrative Code, and the requirements of chapter 341, subchapter C, Texas Health and Safety Code, all as amended, and requiring the certification and operational testing of all testable backflow prevention assemblies.

(c) Comply with the federal Safe Drinking Water Act (title 42, United States Code, chapter 6A, subchapter XII) and state regulations as established by the Texas Commission on Environmental Quality (title 30, Texas Administrative Code) related to cross-connections and backflow prevention.

(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-158. Applicability.

This article applies to all connections to the city's potable water system, unless the customer's system is excepted under section 30-165(h), both as system protection and as internal protection, and to all installations of backflow prevention assemblies related to the city's potable water system, regardless of whether the connection or assembly is located within the city limits of Killeen or in the city's certificated water service area (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)). (Ord. No. 08-040, § II, 5-27-08)

Sec. 30-159. Definitions.

Air gap separation means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture, receptor, or other assembly and the flood level rim of the receptacle.

Approved assembly means a backflow prevention assembly that has been listed approved, manufactured, tested and installed for specific uses in accordance with the standards adopted by the AWWA (Manual M14, latest version) or approved and listed by the University of Southern California Foundation Manual for Cross-Connection Control (latest version) and is otherwise in compliance with this article and the plumbing code.

Auxiliary water supply means any water supply on or available to a customer's premises from a source other than directly through the city water system. Auxiliary water supplies include all of the following:

- (1) Water from another public water system.
- (2) Water from a natural source, such as a well, spring, pond, river or creek.
- (3) Reclaimed water.
- (4) Any water supplied by a public water system, including the city water system, that has passed through a point of delivery and is no longer controlled by the city water system.

AWWA means the American Water Works Association.

Backflow means the undesirable reversal of flow of water and/or mixtures of water and other liquids, gases, or other substances from a customer's side of the service connection into the city water system. Backflow may occur under either a backpressure or back siphonage condition or as a result of a cross-connection.

Backflow prevention assembly or *assembly* means an approved assembly or aggregation of approved assemblies designed to prevent backflow.

Backpressure means any situation or occurrence where the pressure in a customer's system is higher than in the city water system.

Back siphonage means an occurrence where the pressure in the city water system becomes less than that of the customer's system due to a vacuum in the city water system causing the flow of water to reverse its flow.

Building official means the person designated as the building official in the construction code adopted in chapter 8 of this code.

Bypass means a connection from the city side of a backflow prevention assembly to the customer side of the assembly for the purpose of diverting the water around the assembly while it is being repaired or replaced.

Certified backflow prevention assembly tester or *certified tester* means a person who: (1) holds a current professional certification as a backflow prevention assembly tester as required by 30 Texas Administrative Code § 290.44(h)(4)(A), as amended; and (2) is currently registered with the city director of water and sanitary sewer department.

Check valve means a valve that seats readily and completely in order to completely cease the flow of water.

City water system means the entire potable water distribution system of the city of Killeen,

including, without limitation, all pipes, facilities, valves, pumps, conduits, tanks, receptacles and fixtures and appurtenances between the water supply source and the point of delivery, used by the city to produce, convey, deliver, measure, treat or store potable water for public consumption or use.

Contamination means the presence of any foreign substance (organic, inorganic, radiological or biological) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water. Contamination includes both hazardous contaminants and pollutants.

Cross-connection means any physical connection between the city water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process, through which backflow may occur.

Customer means any person or entity that is supplied potable water by or through the city water system and includes an owner, tenant or lessee.

Customer service inspection means an examination of the customer's system for the purpose of providing or denying water service. This inspection is limited to the identification and prevention of cross-connections, potential contaminant hazards, and illegal lead materials. The customer service inspector has no authority or obligation beyond the scope of the TCEQ's regulations. A customer service inspection is not a plumbing inspection as defined and regulated by the Texas State Board of Plumbing Examiners (TSBPE).

Customer's system means the entire plumbing system, including all pipes, conduits, tanks, receptacles, fixtures, equipment and appurtenances used to produce, convey, store or utilize potable or non-potable water between the point of delivery and the customer's point of use.

Director means the director of public works for the city of Killeen or another official as designated by the director.

Hazardous contaminant means any form of contamination that poses a health hazard with respect to the use of water for drinking or other domestic purposes.

Health hazard means a cross-connection, potential contamination hazard, or other situation involving any substance that can cause death, illness, spread of disease, or has a high probability of causing such effects if introduced into the potable drinking water supply.

Non-health hazard means a cross-connection, potential contamination hazard, or other situation involving any substance that generally will not be a health hazard, but will constitute a nuisance, or be aesthetically objectionable, if introduced into the city water system.

Person means any natural person, entity, corporation, corporate body, partnership, cooperative corporation, association, public or private organization of any character, or political subdivision of the state.

Plumbing code means the version of the International Plumbing Code or other related provisions in the International Residential Code adopted in chapter 8 of this code.

Point of delivery means the point at which water leaves the city water system and enters a customer's system at or near the property line or the edge of an easement. When a water meter is installed on or near the property line or edge of an easement, the point of delivery is the terminal end on the discharge side of the water meter.

Pollutant means a contaminant that impairs the quality of water in a manner or to a degree that does not create a hazard to public health, but may adversely affect the aesthetic qualities of the water for domestic use.

Potable water means water that complies with the TCEQ rules for drinking water and other domestic uses.

Potential contamination hazard means a condition which, by its location, piping or configuration, has a reasonable probability of being used incorrectly, through carelessness, ignorance, or negligence, to create or cause to be created a backflow condition by which contamination can be introduced into the water supply.

Service connection means the terminal end of a service connection from the city water system. If a meter is installed at the point of delivery, the service connection means the point at which the terminal end on the discharge side of the water meter connects to the customer's system.

TCEQ means the Texas Commission on Environmental Quality or its predecessor or successor agencies.
(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-160. Conflicts.

If there is a conflict between any provisions of this article, any other provision of this code or state or federal law including title 30 of the Texas Administrative Code, all as amended, the most restrictive provision shall apply. (Ord. No. 08-040, § II, 5-27-08)

DIVISION 2. AUTHORITY AND RESPONSIBILITY

Sec. 30-161. Director of public works.

(a) *Authority and responsibility.* The director, in accordance with this article and title 30, chapter 290 of the Texas Administrative Code, both as amended, is responsible for enforcing the requirements of this article and may establish policies to implement the purposes of this article (State law reference: 30 Texas Admin. Code § 290.44(h)(1)(B)(iii); Texas Health and Safety Code, chapter 341, subchapter C).

(b) *Adequate protection determination.* To ensure adequate protection in individual cases, the director may assess and determine the degree of hazard to the city's potable water system posed in the case of individual connections, customers or users. When the director determines that a backflow prevention assembly is required for the protection of the city water system, the director will require the customer, at the customer's expense, to properly install an approved assembly at each service connection or hazard point. Notice of such requirement shall be given in accordance with section 30-168 of this article (State law reference: 30 Texas Admin. Code (TAC) §

290.44(h)(1)(B)(iii)).

(c) *Certified testing required.* In accordance with the TCEQ's Rules, the director shall require a certified testing report for all required and testable assemblies where an actual or potential hazard has been determined to exist in accordance with section 30-161(d) in the following instances:

- (1) Prior to providing continuous water service to new construction;
- (2) On any existing service when the director has reason to believe that cross connections or other unacceptable plumbing practices increase the risk of actual or potential contamination hazards entering into the city water system;
- (3) After any installation, repair, relocation, alteration, or addition to a customer's system that may affect the system's compliance with this article; and
- (4) At other times as provided by this article.

(State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(4)).

(d) *Testing by city.* City personnel, as directed by the director, may perform periodic tests on assemblies at random locations to ensure that acceptable test standards are being followed by certified testers and randomly select and tag assemblies in a manner that will determine if the assemblies have been tested as required.

(e) *Authority to compel report production.* The director may require from any person the submission of any records relating to the installation, maintenance, repair or testing of backflow prevention assemblies performed in accordance with this article (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)(B)(ii)).

(f) *Authority to refuse or terminate service.* The director may, upon approval of the city manager, refuse to initiate service or discontinue present service to any customer where the director determines that: (1) an actual or potential sanitary hazard in the customer's system exists; and/or (2) adequate protection against backflow has not been provided or reported in accordance with this article. Notice of terminating service is not required where the actual or potential threat of contamination endangers the health, safety and welfare of the city water system and the customers the system serves (State law reference: 30 Texas Admin. Code (TAC) § 290.46(j)(2)).

(g) *Authority to revoke certified tester registration.* The director may revoke a certified tester's registration in the following cases:

- (1) failure to register the serial number or have the gauge tested for accuracy annually;
- (2) use of a test gauge that does not meet the manufacturer's calibration standards in preparation of a city backflow test and maintenance report;
- (3) two (2) testing or reporting discrepancies within a one (1) year period, beginning on the date of the first discrepancy, including:
 - (i) false, incomplete, or inaccurate reporting of test completion or certification of a backflow prevention assembly;
 - (ii) use of inaccurate gauges;
 - (iii) improper operational certification methods; or,

- (iv) failure to comply with sections 30-163(b) or (d) of this article;
- (4) failure to maintain licensure or registration with TCEQ;
- (5) failure to comply with sections 30-163(e) or (f) of this article; or,
- (6) conviction of a violation of this article.

(State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(4)).

Revocation under this paragraph is effective upon receipt of written notice from the director sent via certified mail, return receipt requested. Receipt is presumed to occur five (5) calendar days following the date the notice is mailed. Non-receipt of the notice does not affect the validity of a revocation order. Written notice under this paragraph shall provide specific written findings justifying revocation. Registrations for certified tester's that have had a registration revoked shall not be accepted for a period of one (1) year following the effective date of revocation.

(h) *Appeal of registration revocation.* A request for appeal and reconsideration of registration revocation by a certified tester shall be delivered to the city manager within fifteen (15) calendar days of receipt of the revocation notice and shall specifically contest or justify the director's findings as outlined in the revocation notice. The city manager shall have fifteen (15) calendar days to reconsider revocation and shall then issue a written final determination via certified mail, return receipt requested.

(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-162. Responsibilities of customers.

(a) *Duty.* Each customer has a duty to prevent contaminants from entering into the customer's system and the city water system. This duty begins at the point of delivery and includes the customer's entire internal water system. If the director determines that an actual or potential hazard exists in the customer's system, this article, including the requirements to implement an adequate cross-connection control program and/or install a backflow prevention assembly at the service connection and compliance with the applicable testing requirements, shall apply (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)).

(b) *Consent to allow access and survey.* Each customer, as a condition of receiving water service, consents to allow city personnel access to the customer's property during normal business hours to inspect and survey the customer's system for potential contamination, backflow hazards and cross-connections in accordance with section 30-169. Written consent for access shall be requested by the city prior to conducting an inspection and the property owner shall grant such consent within ten (10) calendar days of receipt of the request for access by the city. If a customer refuses to allow access to city personnel for an inspection or survey in the time frame provided, the director may discontinue or refuse the customer's water service, and/or assume that a high contamination health hazard exists and, therefore, require the highest degree of protection to be used in the customer's system prior to providing water service. If access is denied the director may immediately discontinue water service without further notice and the installation and certification of such required protection shall be required prior to allowing service to the customer.

(c) *Expense.* Each customer, at the customer's expense, shall install, operate, maintain and test approved backflow prevention assemblies as required by this article.

(d) *Testing requirements.*

- (1) *Customer responsibilities.* If the director determines that an internal cross-connection program and/or a backflow prevention assembly at the service connection is required, the customer shall: (a) initiate the testing required by this section; (b) have completed any maintenance or installation of backflow assemblies as determined by the test to be necessary; and (c) ensure that an original report is submitted to the director as required by this article (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(4)).
- (2) *Initial testing or testing following repair, replacement, alteration or relocation.* All required backflow prevention assemblies shall be tested by a certified tester upon installation, repair, alteration or relocation and prior to being placed into service (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)(B) and (4)).
- (3) *Annual testing.* All required backflow prevention assemblies which are installed to provide protection against health hazards shall be tested by a certified tester annually following installation, repair or maintenance. (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)(B)(i) and (h)(4)).

(e) *Installation, repair or maintenance.* Each customer, when contracting for the installation, repair or maintenance of backflow prevention assemblies shall employ a person, entity or contractor lawfully permitted to perform such services under state law. A customer must apply for and obtain a permit from the building official before installing, replacing, re-piping or relocating a backflow prevention assembly.

(f) *Record keeping requirements.* Customers shall keep and maintain accurate copies of city of Killeen test and maintenance report forms for all tests and repairs made to backflow prevention assemblies for at least three (3) years from the date of any such act, and shall provide the director with copies of these reports upon written request or as provided for in this article (State law reference: 30 Texas Admin. Code § 290.46(f)(3)(B)(vi)).

(g) *Internal System Inspections - thermal expansion.* With the installation of backflow assemblies the potential for creating a “closed-system” occurs. This closed system could result in injury to the water system customer if adequate safety measures, including thermal expansion valves, are not functioning properly. Thermal expansion of heated water may occur wherever potable water is heated in a closed system. This expansion may cause damage ranging from leaking faucets to a ruptured water heater if the condition is not addressed. The city shall not accept any liability resulting from the implementation of this article.
(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-163. Certified backflow prevention assembly testers.

(a) *Registration of certified testers.* Each person qualified to perform services as a certified tester for a city water system customer shall submit a completed city registration form to the director prior to performing any services regulated under this article. Test results or certification of the performance of other services shall not be accepted if the tester is not currently registered with the director. The director shall maintain a current list of registered certified testers, and will make this list available to city water system customers upon request. Registrations will be valid for one (1) year and must be renewed annually.

(b) *Testing equipment.* The certified tester shall furnish the city with the serial number of the tester's test kit, and the tester's test gauge must be tested when purchased and annually thereafter, or more frequently as required by the director, to be in compliance with the University of Southern California's Manual of Cross Connection Control (latest edition) or the American Water Works Association Manual of Cross Connection Control requirements (Manual M14, latest edition). The certified tester must maintain the test gauge within a two (2) percent accuracy deviation and retain test results for three (3) years from the date of any such test. All test results shall be made available to the director upon written request or as provided for by this article (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(4)(A) and (B)).

(c) *Accountability of certified tester.* The certified tester is responsible for the competency and accuracy of all tests and reports certifying assemblies to be operating within specifications performed or submitted by the certified tester, and for all work done by any persons under the direction or control of the certified tester. All work performed by a certified tester's assistants must be performed in the tester's presence. Certified testers shall certify that all backflow prevention assemblies comply with the specifications provided in the University of Southern California's Manual of Cross Connection Control (latest edition) or the American Water Works Association Manual of Cross Connection Control requirements (Manual M14, latest edition) and that such assemblies are otherwise in compliance with this article.

(d) *Reporting and record keeping requirements.* A city of Killeen test and maintenance report form must be completed by a certified backflow prevention assembly tester for each assembly tested. The signed and dated original must be submitted to the director for record keeping purposes. Only city of Killeen test and maintenance report forms will be accepted. All test and maintenance reports shall be retained for at least three (3) years from the date of any such test, and shall be made available to the director upon written request or as provided for by this article (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)(C)).

(e) *Immediate notification required from a certified tester.* If a backflow prevention assembly test fails or an assembly malfunctions and the actual or potential hazard of contamination is not immediately curable through repair or replacement, the certified tester shall notify the director and the customer immediately in person or by telephone. This notification shall also be submitted in writing within five (5) calendar days. If the failure or malfunction of a backflow prevention assembly is not immediately curable through repair or replacement, the director upon notification, shall take all necessary steps, including the immediate cessation of water service through the assembly, to prevent the possible contamination of the city water system.

(f) *Alteration of backflow assembly.* It is a violation of this article for a certified tester to alter the design, material, or operational characteristics of a backflow prevention assembly during testing, repairing or maintaining the assembly without the prior written approval of the director.

(g) *Qualified.* Certified backflow prevention assembly testers are qualified to test and repair assemblies on any domestic, commercial, industrial, or irrigation service. However, certified testers shall only test and repair assemblies on fire lines if they are permanently employed by an approved fire line contractor as required by the State of Texas Fire Marshall's office (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(1)(A)(i) and (ii)). (Ord. No. 08-040, § II, 5-27-08)

Sec. 30-164. Backflow assembly installation and maintenance; permit required.

(a) *Permit and inspection required.* Plumbing permits shall be obtained prior to installing, replacing, modifying or relocating existing backflow prevention devices in accordance with chapter 8 of this code. In addition, plumbing inspections are required to be requested upon completion of the above acts and no inspection shall be requested until the original backflow test results are submitted to the city in accordance with this article.

(b) *Testing, reporting and record keeping required.* When a backflow prevention assembly is installed, replaced, modified or relocated the approved assembly shall be tested prior to being placed into service. The person completing the work in paragraph (a) of this section shall submit copies of written reports detailing the work to the customer and original reports to the director on the city of Killeen's test and maintenance report form. The report shall include a list of the materials or replacement parts used. All test, installation and maintenance reports shall be retained for at least three (3) years from the date of any such test, and shall be made available to the director upon written request or as provided for by this article.
(Ord. No. 08-040, § II, 5-27-08)

DIVISION 3. STANDARDS AND REQUIREMENTS

Sec. 30-165. General requirements.

(a) *Compliance required.* This article, the TCEQ Rules and Regulations for Public Water Systems provided in title 30 of the Texas Administrative Code, the city plumbing code and other applicable state and federal laws, all as amended, will govern the design, construction, operation and maintenance of the city water system with respect to cross-connection control and backflow prevention. Each person shall comply with all applicable provisions of these rules and regulations.

(b) *Auxiliary and reclaimed water systems.* It is unlawful for a person to cause or allow water from an auxiliary water supply or reclaimed water system to enter the city water system. Where a customer is served by an auxiliary water supply or utilizes a reclaimed water system in addition to the city water system, all applicable TCEQ regulations shall be followed, and the director will determine the type of backflow prevention assembly to be used (State law reference: 30 Texas Admin. Code § 290.44(h)(2)).

(c) *Unlawful connections.* It is unlawful for a person to make a connection from the city water system to a customer's system where an actual or potential contamination hazard to the city water system exists and there is no air gap separation between the drinking water supply and the source of potential contamination. Where a containment air gap is impractical and, instead, an individual internal air gap or mechanical backflow prevention assembly is used, a backflow prevention assembly will be required at the service connection in accordance with AWWA Standards on those establishments handling substances deleterious or hazardous to the public health. This requirement does not apply if the customer maintains an adequate internal cross-connection control program that includes an annual inspection by a certified tester (State law reference: 30 Texas Admin. Code § 290.44(h)(1)(A) and (B)).

(d) *Non-potable connections.* It is unlawful for a person to make any connection from the

city water system to any condensing, cooling or industrial process or any other system of non-potable usage, over which city water system officials do not have sanitary control, in a manner that does not fully comply with the requirements of subsection (c) above. It is unlawful for any person to cause or permit backflow from any such process to be transmitted into the city water system (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(2)).

(e) *Overhead bulk water dispensing stations.* Overhead bulk water dispensing stations must be provided with an air gap between the filling outlet hose and the receiving tank to protect against back siphonage and cross-contamination (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(3)).

(f) *Service connections, additional protection.* The use of a backflow prevention assembly at a service connection will be considered additional backflow prevention, and does not negate the requirement of backflow prevention on internal hazards as provided by this article or chapter 8 of this code (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(5)).

(g) *Unlawful bypasses.* It is unlawful for a person to install, or to cause or permit the installation of, a bypass that has not been approved in advance by the director. All bypasses on backflow prevention assemblies must themselves include provisions for backflow prevention as described in this article.

(h) *Exception.* This article shall not apply at any residence or facility where there is no actual or potential contamination hazard as determined by the director (State law reference: 30 Texas Admin. Code (TAC) § 290.44(h)(6)).
(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-166. Types of backflow prevention required.

(a) *Generally.* Cross-connections vary widely in degree of potential contamination hazards. Backflow may occur under many different pressure differentials, varying from vacuum to very high pressures. The protection afforded by a backflow prevention assembly depends upon its type, the circumstances in which it is installed, and on its proper installation, maintenance and testing. Only approved assemblies shall be used (as defined in section 30-159 of this article).

(b) *Minimum specific backflow prevention assembly required.* Specific backflow prevention assembly requirements for all affected customers and persons shall comply with this Article, TCEQ regulations as provided in title 30, chapter 290 of the Texas Administrative Code and the city's plumbing code, all as amended. In the event that a conflict exists, the most stringent requirement shall control. Only approved assemblies shall be used. The TCEQ table provided below details the types of premises and uses that are commonly subject to compliance with this article, however, notwithstanding this provision or the table below, the director shall retain final approval authority in each individual case.

Table Insert: (State law reference: Figure: 30 Texas Admin. Code (TAC) §290.47(i))

Assessment of Hazards and Selection of Assemblies

The following table lists many common hazards. It is not an all-inclusive list of the hazards which may be found connected to public water systems.

Premises Isolation - Description of Premises	Assessment of Hazard	Required Assembly
Aircraft and missile plants	Health	RPBA or AG
Animal feedlots	Health	RPBA or AG
Automotive plants	Health	RPBA or AG
Breweries	Health	RPBA or AG
Canneries, packing houses and rendering plants	Health	RPBA or AG
Commercial car wash facilities	Health	RPBA or AG
Commercial laundries	Health	RPBA or AG
Cold storage facilities	Health	RPBA or AG
Connection to sewer pipe	Health	RPBA or AG
Dairies	Health	RPBA or AG
Docks and dockside facilities	Health	RPBA or AG
Dye works	Health	RPBA or AG
Food and beverage processing plants	Health	RPBA or AG
Hospitals, morgues, mortuaries, medical clinics, dental clinics, veterinary clinics, autopsy facilities, sanitariums, and medical labs	Health	RPBA or AG
Metal manufacturing, cleaning, processing, and fabrication plants	Health	RPBA or AG
Microchip fabrication facilities	Health	RPBA or AG

Paper and paper products plants	Health	RPBA or AG
Petroleum processing or storage facilities	Health	RPBA or AG
Photo and film processing labs	Health	RPBA or AG
Plants using radioactive material	Health	RPBA or AG
Plating or chemical plants	Health	RPBA or AG
Pleasure-boat marinas	Health	RPBA or AG
Private/Individual/Unmonitored Wells	Health	RPBA or AG
Reclaimed water systems	Health	RPBA or AG
Restricted, classified or other closed facilities	Health	RPBA or AG
Rubber plants	Health	RPBA or AG
Sewage lift stations	Health	RPBA or AG
Sewage treatment plants	Health	RPBA or AG
Slaughter houses	Health	RPBA or AG
Steam plants	Health	RPBA or AG
Tall buildings or elevation differences where the highest outlet is 80 feet or more above the meter	Nonhealth	DCVA
Internal Protection - Description of Cross Connection	Assessment of Hazard	Required Assembly
Aspirators	Nonhealth†	AVB
Aspirator (medical)	Health	AVB or PVB

Autoclaves	Health	RPBA
Autopsy and mortuary equipment	Health	AVB or PVB
Bedpan washers	Health	AVB or PVB
Connection to industrial fluid systems	Health	RPBA
Connection to plating tanks	Health	RPBA
Connection to salt-water cooling systems	Health	RPBA
Connection to sewer pipe	Health	AG
Cooling towers with chemical additives	Health	AG
Cuspidors	Health	AVB or PVB
Degreasing equipment	Nonhealth†	DCVA
Domestic space-heating boiler	Nonhealth†	RPBA
Dye vats or machines	Health	RPBA
Fire-fighting system (toxic liquid foam concentrates)	Health	RPBA
Flexible shower heads	Nonhealth†	AVB or PVB
Heating equipment Commercial	Nonhealth†	RPBA
Domestic	Nonhealth†	DCVA
Hose bibbs	Nonhealth†	AVB
Irrigation systems with chemical additives	Health	RPBA
without chemical additives	Nonhealth†	AVB, or PVB

Kitchen equipment - Commercial	Nonhealth†	AVB
Lab bench equipment	Health or Nonhealth†	AVB or PVB
Ornamental fountains	Health	AVB or PVB
Swimming pools		
Private	Nonhealth†	PVB or AG
Public	Nonhealth†	RPBA or AG
Sewage pump	Health	AG
Sewage ejectors	Health	AG
Shampoo basins	Nonhealth†	AVB
Specimen tanks	Health	AVB or PVB
Steam generators	Nonhealth†	RPBA
Steam tables	Nonhealth†	AVB
Sterilizers	Health	RPBA
Tank vats or other vessels containing toxic substances	Health	RPBA
Trap primers	Health	AG
Vending machines	Nonhealth†	RPBA or PVB
Watering troughs	Health	AG or PVB

NOTE: AG = air gap; AVB = atmospheric vacuum breaker; DCVA = double check valve backflow prevention assembly; PVB = pressure vacuum breaker; RPBA = reduced-pressure principle backflow prevention assembly.

*AVBs and PVBs may be used to isolate health hazards under certain conditions, that is, backsiphonage situations. Additional area of premises isolation may be required.

†Where a greater hazard exists (due to toxicity or other potential health impact) additional area protection with RPBA's is required.

Uses not listed in this table may require backflow prevention through air gaps or backflow prevention assemblies depending on the nature of the use, the equipment and the plumbing system. These will be determined on an individual basis by the director.

(c) *Exceptions.* A person may request approval from the director for a proposed deviation from or exception to the requirements of this article. Upon request, the Director shall conduct a customer service inspection to determine what (if any) hazards are present and shall document what (if any) backflow protection is required and provide the same to the customer. The director may approve a deviation or exception if the deviation or exception does not conflict with applicable law or increase the risk of an actual or potential contamination hazard from entering into the city water system.

(d) *Criteria for selection of backflow prevention assemblies.* The selection of an appropriate backflow prevention assembly depends upon the degree of hazard involved and will be based on the following criteria:

- (1) whether the assembly could ever be subject to backpressure due to the customer's internal pumping pressures or elevation differentials;
- (2) the nature of contaminating material under the most critical circumstances;
- (3) the extent to which additions may be made to the plumbing system at a later date which would affect the initial selection of the assembly;
- (4) the frequency with which a water supply could be exposed to a hazardous condition; and,
- (5) the degree of protection of the water supply required, as provided by this article, the local plumbing code and title 30, chapter 290 of the Texas Administrative Code, as enforced by the director.

(e) *Highly detrimental hazards.* Where an actual or potential contamination hazard is determined to be highly detrimental to the general health of the city water system, the director may require a total containment backflow prevention system to provide for backflow prevention assemblies on each internal branch line. The proper backflow protection assembly shall be maintained on each service connection or separation of internal systems. At the point of delivery, an assembly must be installed on each leg or branch (i.e., industrial and domestic). The type of backflow prevention assembly required on each leg or branch shall be in accordance with the highest degree of actual or potential contamination hazard found on the premises.

(f) *Mobile connections.* Any person connecting any part of a vehicle or other container to the city water system shall utilize an air gap method or permanently install an approved backflow prevention assembly on the vehicle or container and shall have the assembly tested in accordance with this article prior to connecting to the city water system.

(Ord. No. 08-040, § II, 5-27-08)

DIVISION 4. PROCEDURES

Sec. 30-167. New facilities.

(a) All new facilities, unless excepted from this article under 30-165(h), are required to comply with the requirements of this article. Compliance by a new city water system customer with the requirements for installation of one or more backflow prevention assemblies shall be verified in conjunction with the customer's application for water service or with the customer's building and plumbing permits as provided in section 30-169 of this division.

(b) The director may require field inspection of the customer's premises in addition to building plan submittal and review to determine the actual or potential contamination hazards and backflow prevention assembly requirements.

(c) All plumbing layouts or building plans submitted to the building inspections division shall be reviewed to assure compliance with the requirements of this article and the plumbing code. All plumbing layouts or plans will be stamped by the building inspections division to indicate that containment backflow prevention may be required.
(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-168. Existing facilities, inspections.

(a) *Inspection procedure.* The director or designated representative may inspect the existing facilities of city water system customers that do not have a record of backflow prevention assembly installation or current annual certified testing report(s) on file in the water and sanitary sewer department and at other times as determined necessary by the director in accordance with this article. The director shall prioritize these inspections based on the severity of the potential health hazard as listed in section 30-166 of this article. After the inspection is completed, the director will provide a written notice to the customer advising of any backflow prevention assembly requirements for the customer's system.

(b) *Installation and testing required.* Upon the receipt of written notice as provided for in paragraph (a) of this section the customer shall have thirty (30) calendar days from the date of receipt of the notice to have the appropriate backflow prevention assemblies installed, replaced or repaired and certification of testing submitted to the director. Notice is presumed to be received five (5) calendar days after the notice is mailed. Upon written request of the customer and for cause, the director may extend this time period if an immediate threat of contamination does not exist for additional time periods, which, when combined, shall not exceed ninety (90) calendar days.

(c) *Building plan review.* Plans submitted to the building inspections department for approval of plumbing modifications, or extensions to an existing plumbing system, may be reviewed by the director to determine the type of backflow prevention method or assembly required. The method and type of assembly required will be noted on the plans.
(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-169. Customer service inspections.

(a) A customer service inspection shall be completed prior to providing continuous water

service to all new facilities, for any existing facility when the director has reason to believe that potential cross-connections or other contaminant hazards exists, or after any material improvement, correction, or addition to the private distribution facilities that may affect the system's compliance with this article (State law reference: Texas Admin. Code § 290.46(j)).

(b) Only individuals with the following credentials shall be recognized as qualified to conduct a customer service inspection (in accordance with title 30, chapter 290.46(j) of the Texas Administrative Code):

- (1) Plumbing Inspectors and Water Supply Protection Specialists that have been licensed by the Texas State Board of Plumbing Examiners; or,
- (2) Customer service inspectors who have completed a TCEQ approved course, passed an examination administered by the TCEQ, and hold current professional certification or endorsement as a customer service inspector.

(c) The customer service inspection must certify that:

- (1) No direct connection between the city water system and a potential source of contamination exists and potential sources of contamination are isolated from the city water system by a properly installed air gap or an appropriate backflow prevention assembly;
- (2) No cross-connection between the city water system and a private water source exists;
- (3) No connection exists which would allow water to be returned to the city water system;
- (4) No pipe or pipe fitting containing more than 8% lead has been used for the installation or repair of plumbing at any connection that provides water for human use; and,
- (5) No solder or flux containing more than 0.2% lead has been used for the installation or repair of plumbing at any connection that provides water for human use. A minimum of one lead test shall be performed for each inspection.

(Ord. No. 08-040, § II, 5-27-08)

Sec. 30-170. Penalty and disconnection.

(a) A person who violates, or causes or permits the violation of, any provision of this article commits a Class C misdemeanor which shall be punishable under section 1-8 of this code. A fine not exceeding two thousand dollars (\$2,000.00) may be imposed for violation of provisions in the article that govern fire safety or public health and sanitation. With respect to violations of this code that are continuous with respect to time, each day the violation continues is a separate offense. Proof of a culpable mental state is not required for conviction of an offense under this article.

(b) Failure or refusal on the part of a customer to comply with any provision of this article will constitute grounds for refusing or discontinuing water service.

(Ord. No. 08-040, § II, 5-27-08)