CITY OF SEGUIN **ORDINANCE NUMBER:**

STATE OF TEXAS

ORDINANCE AMENDING THE SEGUIN CODE OF ORDINANCES CHAPTER 102, UTILITIES, ARTICLE VI, WATER CONSERVATION PLAN, TO ADOPT THE 2019 WATER CONSERVATION PLAN; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR PUBLICATION OF THIS ORDINANCE; AUTHORIZING CITY STAFF TO PREPARE THIS ORDINANCE FOR SUBMISSION AS A SUPPLEMENT TO THE CITY CODE OF ORDINANCES; AND DECLARING AN EFFECTIVE DATE .

WHEREAS, the Texas Water Development Board requires that public water suppliers with more than 3,300 connections, which includes Seguin, develop and submit an updated water conservation plan every five years; and

WHEREAS, the City of Seguin last updated its water conservation plan effective July 1, 2014; and

WHEREAS, the proposed plan includes updated water treatment process, water storage and capacity information, alternate water supply information and other updated data; and

WHEREAS, the plan also updates some terminology and simplifies some of the language.

NOT THEREFORE BE IT ORDAINED, by the City Council of Seguin, Texas:

SECTION ONE: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-275, Protection of Water Sources, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

The protection of the City's water source, the Guadalupe River, is accomplished through governmental regulation and water conservation. Accidental, intentional, and incidental pollution from cities, industry, agriculture, and recreational activities are controlled by governmental regulation. The City of Seguin (City) supports the Texas ~~Natural Resource Conservation Commission (TNRCC~~ Commission on Environmental Quality (TCEQ) financially through water quality assessment fees. These fees are used for the purpose of monitoring and testing the river water to detect, prevent, and control any source of pollution or misuse in the river basin. The primary function of the ~~city~~ City's water treatment plant is to provide the public with a safe drinking water supply. This responsibility starts with ensuring our source of water is of the best quality possible and to protect our source of supply now and for the future.

SECTION TWO: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-276, Water Quality, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) In no other industry do so many people depend on so few for so much. To guarantee that the public receives the best product and service, the ~~Texas Natural Resource Conservation Commission (TNRCC)~~ TCEQ, an agency of the State of Texas, sets and enforces strict guidelines and standards in water treatment processes. It requires all plant personnel active in the water treatment to be highly trained and certified.

(b) The City's water treatment plant has always maintained these standards and has received a superior rating as a water treatment plant in the State of Texas.

(c) The ~~TNRCC~~ TCEQ requires annual, quarterly, monthly, and daily testing of water quality to ensure that the water being provided to the consumer meets all water quality standards. The majority of the water quality testing is performed in a state-certified laboratory while the daily routine testing is performed by qualified water plant personnel.

(d) All plant personnel at the treatment facility are required by the city and ~~TNRCC~~ TCEQ to be licensed as certified operators. This certification is accomplished by attending classes ~~provided by the Texas A & M Extension Service~~ and passing an examination administered by the ~~TNRCC~~ TCEQ. Competent, trained water plant operators are the key to good water quality.

SECTION THREE: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-277, Water Treatment Process, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) The City operates and maintains a water treatment facility in Max Starcke Park. The treatment facility is considered to be a full treatment process which is required by the U.S. Environmental Protection Agency (EPA) and the ~~TNRCC~~ TCEQ. The ~~TNRCC~~ TCEQ inspects the treatment facility annually to ensure all treatment processes are in accordance with the recommended standards.

(b) The water treatment plant pumps raw water from the Guadalupe River to be processed through the treatment facility. ~~As water is pumped from the river, a chlorine solution is injected at the discharge of the river pumps for the purpose of pre-chlorination~~ Raw water is disinfected in the initial treatment process. ~~Pre-chlorination~~ Disinfection will kill bacteria, viruses, algae, and other waterborne organisms before water enters any treatment unit.

(c) After ~~pre-chlorination~~ disinfection, the water enters the clarifiers, where the process~~es~~ of flocculation and sedimentation occur. To achieve this process~~, a chemical,~~ aluminum sulfate~~,~~ is added to the river water, which reacts with particulate matter such as silt. This reaction is called "flocculation." Flocculation is the formation of curd-like particles of chemical and ~~mud~~ silt as a result of a chemical reaction. The curd-like particles called "floc" are heavy and will settle to the bottom of the clarifiers, thus the process of sedimentation occurs. During this process ~~a chemical,~~ caustic soda~~,~~ is added to adjust the pH of the water. This prevents corrosion of the pipes in the City's distribution system ~~or plumbing fixtures in homes~~. ~~The clear water, a~~ after the process of sedimentation, the clear water flows to dual media filters where all remaining ~~silt and organisms~~ particles are removed. After filtration, the sparkling clear water ~~is post-chlorinated~~ disinfected a second time to provide a disinfection residual throughout the distribution system. ~~to ensure no bacterial organisms are present which would have been introduced during the treatment process and provide protection throughout the distribution system.~~ This finished water is now safe for human consumption and is pumped through the distribution system for use. ~~to the citizens for their use.~~

SECTION FOUR: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-278, Water Storage and Capacity, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) Storage reservoirs and tanks are a necessary part of the City water system. During periods of high consumption, the storage tanks provide water to meet peak demand. ~~use and emergency situations.~~ The elevated storage tanks also provide adequate pressure uniformly across the City and allow the treatment plant to be operational at a consistent rate.

(b) The City maintains a reservoir which is part of the natural river channel behind the dam in Max Starcke Park. The city received authorization to maintain the reservoir in its 1914 Water Rights Permit from ~~by~~ the ~~TNRCC~~ State of Texas. The City can impound four hundred twenty-five (425) acre-feet of water (~138,500,000 gallons) and divert this water through the treatment plant for municipal use.

(c) The water treatment plant has a rated capacity to purify eleven million six hundred thousand (11,600,000) gallons per day. The water that is purified is stored at the plant in a ground storage tank and ~~clearwells~~ clear wells. The combined capacity of the ~~clearwell~~ clear well and ground storage at the treatment plant is ~~three~~ five million three hundred thousand (35,300,000) gallons. This volume of water is held in storage at the plant to meet peak hour flow demand and emergency events.

(d) To meet the immediate needs of the public, elevated storage tanks are located throughout the system to maintain pressure and supply as demand dictates. The City has four (4) elevated storage tanks in the distribution system. A one-half million (500,000) gallon elevated tank is located on East Ireland Street to meet the needs of the central area of town. A one million (1,000,000) gallon elevated tank is located on West Kingsbury Street to service the west side of town and an additional one million (1,000,000) gallon elevated tank is located on Lucille Street to service the eastern portion of Seguin. To service the Industrial Park and the north side of Seguin, a one ~~hundred fifty thousand~~ million (~~150~~ 1,000,000) gallon elevated tank was provided. These four (4) elevated storage tanks have a total capacity of three million one hundred fifty thousand (3,150~~0~~,000) gallons of readily available water.

(e) The total water storage capacity of the City of Seguin is ~~six~~ nine million ~~ninety~~ ten thousand (~~6,090~~9,010,000) gallons.

Location	Type	Capacity (gallons)
Water plant	Ground storage	3,000,000

Location	Type	Capacity (gallons)
Water Plan	Ground storage	2,000,000
Water plant	~~Clearwell~~ Clear well ground storage	300,000
Vetter Street	Ground storage	~~140~~ 210,000
Ireland Street	Elevated storage	500,000
West Kingsbury Street	Elevated storage	1,000,000
Lucille Street	Elevated storage	1,000,000
123 Bypass North	Elevated storage	~~150~~ 1,000,000

SECTION FIVE: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-279, Permitted Water, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) The City of Seguin holds a Certificate of Adjudication No. 18-3839, which authorizes the City to divert seven thousand (7,000) acre-feet of water per year from the run of the river flow of the Guadalupe River for municipal purposes. This certification of adjudication has an original priority date of 1914, giving the City a senior permit over later permit holders. The original 1914 Water Right Permit authorized the City to divert seven thousand (7,000) acre-feet of water at a rate of twelve (12) cubic feet per second (cfs) [or] five thousand three hundred eighty (5,380) gallons per minute (gpm). In 1988, the diversion rate was increased to twenty-three (23) cfs (10,316 gpm) to meet the projected increase in water use due to population increase. The twenty-three (23) cfs did not receive the same senior rights dated as the original twelve (12) cfs of June 24, 1914, but carries the date it was granted, October 25, 1988. On February 21, 2018, the City was granted an amendment to Certificate of Adjudication No. 18-3839 designated as Certificate of Adjudication 18-3839D. This

amendment adds municipal purposes to the 200 acre-feet of the water originally authorized for agricultural purposes and to change the place of use for municipal purposes to within the service area of the City of Seguin.

(b) These water rights have been issued by the ~~Texas Natural Resource Conservation Commission~~ Texas Commission on Environmental Quality and are recognized by the State of Texas. The Texas ~~Natural Resource Conservation Commission~~ Commission on Environmental Quality will require the City to comply with all terms, conditions, and provisions of the permit. In turn, the ~~TNRCC~~ TCEQ will protect the City's water rights and the rights to divert water from the Guadalupe River by using its branch division, the South Texas Water Master, to enforce all water rights. The City recognizes that its run-of-river water right, regardless of the priority date, will not supply the City's needs during a repeat of the drought of record.

SECTION SIX: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-280, Alternate Water Supply, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) The City recognizes the need of a water supply that will be available at all times, even during droughts. In order to supply water to its citizens, the City of Seguin has developed an alternate supply of water in the event the water flow in the Guadalupe River becomes insufficient or ceases to meet pumping requirements for the City's water system.

(b) The City has contracted with the Guadalupe Blanco River Authority (GBRA) for its commitment to supply Seguin with stored water from the Canyon Reservoir. The annual commitment ~~from the water from Canyon Reservoir~~ is for ~~3~~1,000 acre-feet of water. This water will be delivered to the City upon request and be diverted from the river channel at a rate not to exceed 23 cfs or 10,327 gallons per minute. The water diverted by the water treatment plant is metered to assure all available contracted water is utilized.

(c) The City of Seguin distributes groundwater obtained from the Carrizo Aquifer. This is a major aquifer traversing the State of Texas roughly from Laredo to Texarkana. Groundwater is pumped from the Carrizo Aquifer through a series of public water supply wells approximately 1,400 feet in depth and is then treated at the Schertz-Sequin Local Government Cooperation (SSLGC) Water Treatment Plant in Gonzales County for potable consumption. The Gonzales groundwater treatment facility is jointly owned by the City of Seguin and the City of Schertz and is operated by SSLGC. SSLGC maintains 19,000 acre-feet of ground water rights to distribute between the City of Seguin, the City of Schertz, and any other water customers under contract.

SECTION SEVEN: The Seguin Code of Ordinances, Chapter 102, Utilities, Article VI, Water Conservation Plan, Section 102-281, Water Conservation Plan, is amended as follows underlining indicates added text, ~~strikethrough~~ indicates deleted text):

(a) *Introduction.* The City of Seguin is dedicated to conserving one of the world's greatest natural resources: Water. The City has ~~13,300,700~~ 16,700 acre-feet of available water in its system for

residential and industrial use~~, approximately one-third of which is used by the city each year~~. To reduce consumption of water by all customers, the city promotes water conservation through education and information, water conserving landscaping (xeriscape), leak detection and repair, universal metering, rate structure, recycling and reuse, retrofit programs, plumbing codes, and implementation and enforcement.

(b) *Education and information.* Water conservation ~~will be~~ is promoted by informing water users about ways to save water inside homes and other buildings, in landscaping and lawn uses, and in recreational uses. The City ~~maintains a list of~~ may suggest~~ed~~ ways that water can be saved daily in the home; bathroom, kitchen, laundry room, appliances and plumbing equipment, and out~~-of-~~ door usage.

The City may use one or a combination of the following ~~M~~methods ~~of~~ to share water conservation information with the public: ~~informing the public shall include:~~

(1) *Radio spots*:

a. City personnel ~~will~~ may provide water conservation information via local radio spots ~~on a weekly basis~~ during peak water demands. ~~These radio spots will keep t~~The information is developed to keep citizens up to date on river conditions, total water used~~,~~ and encourage citizen support for conservation efforts.

b. Conservation tips ~~will~~ may be announced on the radio.

~~c. The city will use a variety of radio spots, including ones developed successfully by other agencies.~~

~~d~~c. The City ~~will~~ may encourage citizen participation by ~~asking them to do radio spots on their best water conservation tips.~~ soliciting their best water conservation tips.

(2) *Newspaper*:

a. The City may provide news releases on ~~the water plant pumpage and storage conditions~~ water use.

b. The City may provide articles and news releases on water conservation tips.

(3) *Pamphlets*:

a. The City may provide information on pamphlets distributed to the public ~~are available to the public~~ on water conservation ~~in~~ at City Hall, and ~~will~~ may also be distributed at local ~~made available at hardware stores and general merchandise stores~~ vendors.

b. When a customer applies for new service, water conservation tips ~~will~~ may be made available for their reference.

c. Utility bill messages and door hangers on conservation ~~will~~ may be used periodically, as appropriate.

d. The City may encourage~~s~~ water conservation during community events such as the Guadalupe County Fair, Earth Day, and National Drinking Water Week.

(4) *Governmental access cable channel, webpage and social media sites*:

a. The City may provide daily news releases to keep citizens informed on water conservation. ~~on the local access cable channel.~~

b. The City may provide articles on water conservation tips.

c. The City may provide current water conservation information on the City of Seguin webpage or the City's various social media sites.

~~d. Provide current information and important notices through the city's social media sites.~~

(c) *Water conserving landscaping.* In order to reduce the demands placed on a water system by landscape watering, the City ~~will~~ encourages ~~education and information on~~ the use of water conserving landscaping.

(1) The City encourages landscape architects to use adapted~~, low-water-using~~ drought tolerant plants and grasses and efficient irrigation systems in preparing all site and facility plans.

(2) The City encourages licensed irrigation contractors to use drip irrigation systems when possible and to design irrigation systems with water conservation features, such as sprinklers that emit large drops rather than a fine mist and a sprinkler layout that accommodates prevailing wind direction.

(3) The City encourages commercial establishments to use drip irrigation for landscape watering when possible and to install only ornamental fountains that recycle and ~~sue~~ use ~~the~~ a minimum amount of water.

(4) The City encourages nurseries and local businesses to offer ~~adapted, low-water-using~~ drought tolerant plants and grasses and efficient landscape watering devices, such as drip irrigation systems.

(5) The City will may provide water-conserving landscaping at a city facility or park to use as an example for the public.

(d) *Leak detection and repair*. The City currently has a leak-detection program which is maintained in the following manner:

(1) The City has invested in an automated meter reading ~~water meter~~ system to be able to monitor water use and to manage the system, including the detection of possible leaks.

(2) If the meter reading is abnormally high, a ~~re~~check is made to determine if there is a possible leak on the customer~~['s]~~ 's service.

(3) Water/~~sewer~~ Wastewater Maintenance Department personnel are "on call" 24-hours a day and constantly monitor the water level in all water storage tanks. Operators can immediately recognize a major water main break. ~~When~~ If this occurs, the Water / Wastewater Maintenance staff may be dispatched to make emergency repairs. ~~water plant personnel notify the water/sewer maintenance department so that immediate repairs can begin~~.

(4) Water / Wastewater Maintenance Water/sewer maintenance department personnel are on call 24-hours a day for repairs if needed. When a citizen suspects a water main break ~~by observing water~~

~~running down the street,~~ they are encouraged to call the ~~police department~~ emergency dispatcher so ~~that~~ the on-call personnel can be notified.

(5) Most ~~Many~~ distribution system leaks ~~are~~ may be detected early because visible water on the ground and/or ~~of the ground condition due to water on the surface and~~ the AMR ~~meters~~ metering system.

(e) *Universal metering.*

(1) The City of Seguin accounts for water production and water loss by maintaining accurate master meters and a repair / replacement program for distribution meters.

(2) Master meters used to record water plant production, purchase of wholesale water, and delivery of water to major industrial users are calibrated semi-annually. The accuracy of these meters is plus or minus two percent ~~accuracy~~ of the manufacturer's maximum flow. Qualified technicians are contracted to check calibration and provide documentation to the City.

(3). The AMR meters that are not working properly or have abnormally high or low readings are replaced. The City has in place a meter repair / replacement program.

(4) The City of Seguin meters all customers in their water distribution system. Meters have been installed on all City and recreational complexes to accurately account for all water used.

(f) *Rate structure*. The City has a conservation-oriented water rate structure which was adopted May 1, 1985., This structure has continued through the present date. The City's rate structure encourages the wise use of water. This residential rate has been structured to discourage excessive water usage while assuring that the rates will not place an excessive burden on fixed-income residents.

(g) *Recycling and reuse*.

(1) The City of Seguin Water Treatment Plant generates wastewater during the treatment process. Wastewater comes from the backwash process of cleaning filter and sludge removal in clarification units. The wastewater from the Seguin Water Plant is ~~stored in sludge basins and is then pumped to the Starcke Park Municipal Golf Course to irrigate the golf course is~~ pumped to the Walnut Branch Wastewater Treatment Plant. ~~This reuse water is also pumped to both the City of Seguin softball and baseball complexes. During a wet season when the golf course and baseball fields do not need to irrigate the wastewater is recycled through the treatment process of the water plant.~~ The wastewater treatment process allows for the re-use of treated effluent for industrial purposes.

(2) The City of Seguin has two wastewater treatment plants. The Walnut Branch Wastewater Treatment Plant has a permit to discharge 4.9 million gallons ~~greater than 2,000,000 gallons~~ per day. A portion of the wastewater effluent is pumped to the Rio Nogales Power Plant as reuse water for use in generating electric power. The Rio Nogales Power Plant also purchases potable water, but the wastewater effluent purchase by the Power Plant reduces the amount of potable water needed by approximately ~~200~~240,000,000 gallons annually.

~~(3) The discharge from the Rio Nogales Power Plant flows to the Geronimo Creek Wastewater Treatment Plant, where the discharge is treated. This discharge has a high concentration of~~

~~minerals and if discharged back to the Walnut Branch Plant, it would reduce the amount of effluent capable of being reused by the power plant.~~

(h) *Retrofit programs*:

(1) The building codes adopted by the City of Seguin contain within their guidelines retrofit recommendations that the City building official is enforcing.

(2) ~~All~~ Water saving devices may be purchased from local plumbing suppliers and hardware stores in Seguin~~ stock water-saving devices and encourage their use.~~.

(i) *Plumbing codes.* The City has adopted the ~~2009~~ 2015 International Residential Code, the ~~2009~~ 2015 International Building Code and the ~~2009~~ 2015 International Energy Conservation Code.

(j) *Coordination and regional planning groups*. The City of Seguin is a customer of a wholesale water provider. Water is purchased from the Schertz Seguin Local Government Corporation ("SSLGC"). The SSLGC has participated in the strategic water planning process by providing information to the South Central Regional Water Planning Group (initially designated and known as Region L). The City of Seguin has also participated in the South Texas Regional Water Planning group by providing a copy of its water conservation plan, data on water consumption, and commenting on future population growth.

(k) *Conservation plan and goals*. The City's water conservation plan and water conservation goals ~~shall~~ may be posted on the City's website. Additionally a copy of the conservation plan and goals ~~shall~~ may be available in the office of the City Secretary.

SECTION EIGHT. If any word, phrase, clause, sentence, or paragraph of this ordinance is held to be unconstitutional or invalid by a court of competent jurisdiction, the other provisions of this ordinance will continue in force if they can be given effect without the invalid portion.

SECTION NINE. All ordinances and resolution or parts of ordinances or resolutions in conflict with this ordinance are repealed.

SECTION TEN. City staff is authorized to prepare this Ordinance for submission as a supplement to the Seguin Code of Ordinances.

SECTION ELEVEN. This ordinance shall be effective upon ten (10) days following passage on second reading.

PASSED AND APPROVED on first reading on the 4th day of June 2019.

PASSED, APPROVED, and ADOPTED on second reading on the 18th day of June, 2019.

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DON KEIL, Mayor

ATTEST:

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Naomi Manski, City Secretary