



# **CITY OF SEGUIN**

## **WATER CONSERVATION PLAN**

**2014**

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Ordinance

## II. Profile of Municipality

### A. Population:

The City of Seguin has secured additional water resources for the future growth to the year 2060. The current population of the City of Seguin is 25,295:

#### Population Projections\*

Years	2020	2030	2040	2050	2060
Population	27,575	27,575	27,575	27,575	27,575

"Source: 2010 City's Comprehensive Plan and Land Use Study Performed by rimrock

### B. Future Water Use:

The City of Seguin has contracted with the Schertz Seguin Local Government Corporation for the purchase of up to 6800 acre ft. of water from the Carrizo/ Wilcox Aquifer in addition to the City surface water rights of 7,000 acre ft. and 1,000 acre ft. contracted with G.B.R.A.

#### Water Need Projections\*

Years	2020	2030	2040	2050	2060
Acre-Feet	13,300	13,300	13,300	13,300	13,300

Source: December 2010 Seguin Water Supply Study Performed by Walker Partners Engineering

### C. Water Supply History:

The City of Seguin water system provides the public with a high quality of drinking water. The water is used for human consumption, lawn irrigation, and light commercial, industrial and power generation.

#### Water Supply History\*

Years	2009	2010	2011	2012	2013
Acre-Feet	6704	6171	7303	6698	6057

""Source: City of Seguin Water Production Records

### **III. Education and Information**

Water Conservation will be promoted by informing water users about ways to save water inside homes and other buildings, in landscaping and lawn uses, and in recreational uses and the suggested ways that water can be saved daily in the home; bathroom, kitchen, laundry room, appliances and plumbing equipment; and outdoor usage.

Methods of Informing the Public may include:

#### **A. Radio Spots**

1. City Personnel will provide radio spots on a weekly basis during peak demands. These radio spots will keep the citizens up to date on storage conditions, total water used and encourage citizen support for conservation efforts.
2. Conservation tips will be announced on the radio.
3. The City will use a variety of radio spots including ones developed successfully by other agencies.
4. The City will encourage citizen participation by asking them to do radio spots on their best water conservation tips.

#### **B. Newspaper**

1. Provide news releases on the Water Plant pumpage and storage conditions.
2. Provide articles and news releases on water conservation tips.

#### **C. Pamphlets**

1. Pamphlets may be made available to the public on water conservation in *City Hall*, and will be made available at hardware stores and general merchandise stores.
2. When a customer applies for new service, conservation tips will be available for their reference.
3. Utility bill messages and door hangers on conservation will be used periodically, as appropriate.
4. The City encourages water conservation during community events such as the County Fair, Earth Day and National Drinking Water Week.

#### **D. Governmental Access Cable Channel**

1. Provide daily news releases to keep citizens informed on conservation on local access cable channel.
2. Provide articles on water conservation tips.
3. Provide current information on the City of Seguin Webpage.
4. Provide current information and important notices through the City's social media site.

#### **IV. Water Conserving Landscaping**

In order to reduce the demands placed on a water system by landscape watering, the City will encourage education and information on water conservation landscaping.

- A. The City encourages landscape architects to use adapted, low water using plants and grasses and efficient irrigation systems in preparing all site and facility plans.
- B. 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.
- C. The City encourages commercial establishments to use drip irrigation for landscape watering when possible and to install only ornamental fountains that recycle and use the minimum amount of water.
- D. The City encourages nurseries and local businesses to offer adapted, low water using plants and grasses and efficient landscape watering devices, such as drip irrigation systems.
- E. The City will provide water-conserving landscaping at a City facility or park to use as an example for the public.

#### **V, Leak Detection**

Water leaks in the distribution system are the main cause for unaccountable water. The City of Seguin leak detection program is as follows:

- A. The city has invested in AMR water meters to be able to monitor water use to manage the system and to detect possible leaks.
- 2. If a water meter reads abnormally "high" a recheck is made to determine if there is a possible leak on the customer service.
- C. Water Plant Operators are on duty 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 this occurs, the Water Plant personnel will notify the Water/Sewer Maintenance Department so that immediate repairs can begin.
- D. 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 Dispatcher so that the on-call personnel can be notified.
- E. Most distribution system leaks are detected early because of the ground condition, due to water on the surface and the A.M.R. meters.

## **VI. Unaccountable Water**

The City of Seguin has made a concerted effort to account for all water provided to the customers.

All known service connections on the distribution system have a water meter installed to measure water consumption. City facilities, recreation complexes, parks, fountains and irrigation systems are now metered to account for water used by all City Departments.

Each department is requested to estimate water use that cannot be metered each month.

This estimated amount of unmetered water is recorded in a monthly log.

Unmetered water includes, but not limited to:

1. Water Main Breaks
2. Street Sweeping
3. Firefighting
4. Fire Plug Flushing
5. Water Main Flushing

The City of Seguin Water Treatment Plant generates wastewater during the treatment process, Wastewater comes from the backwash process of cleaning filter and the sludge removal in the 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, This reuse water is also pumped to both the City of Seguin Softball and Baseball Complexes, During a wet season when the Golf Course or Baseball Fields do not need to irrigate the wastewater is recycled through the treatment process of the Water Plant.

The City of Seguin has two Wastewater Treatment Plants. The Walnut Branch Plant has a discharge greater than two million 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 purchased by the Power Plant reduces the amount of potable water needed by 200,000,000 annually The discharge from the Rio Nogales Power Plant flows to our second wastewater plant, 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, would reduce the amount of effluent capable of being reused by the power plant.

## **X. Rate Structure**

The City of Seguin water 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.

The City of Seguin has a conservation oriented water rate structure, which was adopted in May 1, 1985 and has continued the water rate structure till present date.

## **XI. 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 Schertz Seguin Local Government Corporation has participated in the strategic water planning process by providing information to the South Central Texas Regional Water Planning Group (SCTRWPG), initially designated and known as Region L.

The City of Seguin has also participated with the South Central Texas Regional Water Planning Group by providing a copy of our Water Conservation Plan, providing data on water consumption, and commenting on future population growth.

## **XII. Conservation Goals**

Using projected and historical water needs and population growth established in the December 2010 Water Supply Study performed by Walker Partner Engineering, we have projected water use goals from the present until 2023.

The goals include water conservation and water loss programs as outlined in our Water Conservation Plan and Drought Contingency Plan.

### **Water Conservation Goals**

Residential, Multi-family, Commercial, Institutional Ground Water Use

<b>Years</b>	<b>Population</b>	<b>Acre-Feet</b>	<b>Per Capita/Day</b>
2014	25295	4200	148
2015	25568	4240	147
2016	25876	4245	146
2017	27024	4300	142
2018	27575	4290	138
2019	27575	4285	138
2020	27575	4280	138
2021	27575	4275	138
2022	27575	4270	138
2023	27575	4265	138

December 2010 Water Supply Study performed by Walker Partner Engineering and Historical Water Needs

## Industrial Water use from Surface water source

<b>Years</b>	<b>CPS ENERGY TYSON Food Surface water used/acre ft.</b>	<b>Reuse water use at C.P.S Energy ACRE FT</b>	<b>Percentage of reuse water used</b>
2014	3068	754	24
2015	3150	800	24.5
2016	3170	805	25
2017	3200	810	25.3
2018	3210	813	25.32
2019	3305	840	25.4
2020	3350	860	25.67
2021	3400	890	26
2022	3500	940	26.8
2023	3600	980	27

Conservation goals are to increase the percentage of reuse water use by C.P.S. Energy and continue the water conservation programs at Tyson foods.