Guadalupe-Blanco River Authority
Luling Water Treatment Plant
Water Conservation Plan And Drought Contingency Plan

1. Introduction

The Guadalupe-Blanco River Authority (GBRA) is a water conservation and reclamation district created by the State of Texas in 1933 as a public corporation under Section 59, Article 16 of the Constitution of Texas. It was reauthorized in 1935 as the Guadalupe-Blanco River Authority by an act of the Texas Legislature.

GBRA was established to develop, conserve and protect the water resources of the Guadalupe River Basin and make them available for beneficial use. Since its beginning, GBRA has understood that planning and resource development efforts cannot take place in isolation, but must always consider the broader scope of regional and statewide water needs. GBRA's statutory district begins near the headwaters of the Guadalupe and Blanco Rivers, ending at San Antonio Bay. The district includes Kendall, Comal, Hays, Caldwell, Guadalupe, Gonzales, DeWitt, Victoria, Calhoun, and Refugio counties, encompassing approximately 7,900 square miles. GBRA is made up of 10 operational divisions and the General Division to supply essential services including water and wastewater treatment, water quality testing, the management of water rights and delivery of stored water, the production of electricity from seven hydroelectric plants, engineering and design support, economic development and educational support to a population of greater than 550,000 people.

GBRA is governed by a board of nine directors appointed by the Governor, subject to confirmation by the Texas Senate. Each director serves a six-year term with three directors appointed or reappointed every two years. Management and administrative functions are performed by the General Manager and staff under policies established by the Board.

The mission of the GBRA is to protect, conserve, reclaim and steward the resources of the 10-county District in order to ensure and promote quality of life for those we serve. This mission has been separated into six specific goals:

- Water Resource Management – To ensure a supply of quality water for both immediate and long-term needs of the District by development of all feasible alternatives; and development of flood management measures.

- Water Quality – To ensure that the quality of water in the District is suitable for municipal, agricultural, environmental and industrial supplies as well as recreational uses.
- Public Services – To expand the GBRA's public services and continue to enhance current operations.
- Economic Development – To create economic development opportunities for each community in the District through partnerships with the GBRA.
- Technical Assistance and Support – To provide increased professional and technical assistance to customers and other entities.
- Communication and Education – To inform and educate employees and the public regarding protection, conservation and reclamation of District resources and GBRA stewardship of those resources.

This Water Conservation Plan and Drought Contingency Plan pertains to the use of water by GBRA's Contracting Parties of the GBRA Luling Water Treatment Plant and are intended to meet the requirements of the Texas Commission on Environmental Quality (TCEQ), Texas Water Development Board (TWDB), and the Guadalupe-Blanco River Authority. Under water rights permits issued by the State of Texas, the GBRA Luling Water Treatment Plant is capable of diverting up to 4,422 acre-feet of water annually from the San Marcos River near Luling, providing a source of municipal water treatment and delivery to the City of Luling and the City of Lockhart.

2. Water Conservation Plan

2.1 Introduction

GBRA provides wholesale treated water to two Contracting Parties of the GBRA Luling Water Treatment Plant. As the Contracting Parties retail utility systems are separate from the GBRA's treated water system, the GBRA does not have the ability to implement most of the water conservation measures discussed in this Plan. The Contracting Parties will be able to implement these measures as a part of their respective retail water supply operations. GBRA's role in this program will include the administration and promotion of the Plan, and public education and information.

2.2 Planning Area Description

Raw water for the GBRA Luling WTP comes from the San Marcos River just upstream of Zedler Mill Dam in Luling. The majority of the flow in the San Marcos River in Luling is predominantly from spring flow in San Marcos with limited amounts of water from the Blanco River, especially during the summer.

GBRA pumps raw water from the San Marcos River, treats it and delivers it on a wholesale basis to both Lockhart and Luling. Water is delivered to Lockhart through almost 15 miles of 14" pipeline.

For more detailed information on the service area such as population and historical water use information, please see Appendix A.

2.3 Conservation Goals

GBRA's water conservation goals are to: (1) provide an adequate supply of suitable treated water to meet the needs of its wholesale customers; and to (2) encourage its wholesale customers to adopt and implement water conservation plans that will reduce per capita and peak use demands.

GBRA's water conservation program is predicated on the fact that the implementation of conservation measures must occur largely at the local level. GBRA's program is focused on encouraging and supporting initiatives by wholesale customers.

The Guadalupe-Blanco River Authority requires each of its customers to set goals in gallons per capita per day (gpcd) and goals for a maximum acceptable level of unaccounted-for water as part of their local water conservation planning. The gpcd calculation, as defined by TCEQ, is the total average daily amount of water diverted or pumped for treatment by potable uses divided by the population served.

In order to set a wholesale water supplier goal for municipal water conservation, baseline per capita water use must first be determined. It was determined to use the Year 2005 Water Use Survey data from the Texas Water Development Board as a baseline calculation of municipal gpcd. This is the latest year for which water use data is available for both Lockhart and Luling. In addition, 2005 was an "average" weather year; therefore the calculated gpcd rate would be what would be expected in a normal year. Using this data, the Cities of Luling and Lockhart reported a total water use of approximately 2,713 acft in the Year 2005. It is important to note

that this value is not the total water use from the GBRA Luling Water Treatment Plant by these entities. Using population estimates for the same year from the Texas State Data Center, these entities had a combined population of approximately 18,690. The gpcd usage for the Luling Water Treatment Plant customers, using 2005 population estimates and TWDB water use data is 129 gpcd. Projecting a five and ten-year per capita use goal forward from 2008 results in a 2013 goal and a 2018 goal. **The per capita goal for 2013 is 127 gpcd and the goal for 2018 is 126 gpcd.** This is consistent with the 2006 South Central Texas Regional Water Plan which states that for municipal WUGs (Water User Groups) having year 2000 water use of less than 140 gpcd, the goal is to reduce per capita water use by one-fourth percent per year (0.25% per year).

The long-term goal for conservation is to increase water use efficiency and reduce the waste of water. However, GBRA only has limited control of water use because it is a wholesale provider of those supplies. Achievement of significant water conservation savings can only occur if each retail water user sets and implements its own water conservation programs.

In addition to the per capita water use goal above, **GBRA has set a maximum water loss goal of 10% for the affected municipal systems.** This goal was chosen as this value generally represents an acceptable level of water loss.

2.4 Metering Water Diverted from the Source of Supply

GBRA meters the amount of raw water pumped from the San Marcos River to the GBRA Luling Water Treatment Plant. In addition, treated water pumped from the GBRA Luling Water Treatment Plant to each customer city is metered by GBRA. The Contracting Parties then meter water delivered to their customers.

2.5 Monitoring and Record Management Program

Each year GBRA's records, including water sales, deliveries, and losses are audited by an independent auditor. In addition, flow records and reports are routinely audited by GBRA's internal auditor.

2.6 Metering/Leak Detection and Repair Program

Master metering of the wholesale customer by GBRA, will provide an accurate accounting of water delivered to each retail system.

The Contracting Parties shall meter all retail water uses and will be encouraged to provide a master meter as well as metering of all utility, city and other public facilities. The Contracting Parties will manage their ongoing leak detection, location and repair programs. Waterline leaks are detected by utility personnel while reading meters, maintaining their water and wastewater systems, and while performing other routine surveillance programs.

Additionally, as required by House Bill 3338, a water audit shall be conducted and submitted to the Texas Water Development Board every five years. In addition, each customer city will be encouraged to submit, on an annual basis, a water system audit to the GBRA in order to determine the amount of water which is being lost from the system as a result of various conditions including theft, leaks, inaccurate meters, or bookkeeping errors.

In addition, GBRA will monitor for leaks in any water storage, delivery, and distribution system components used to transport treated water prior to delivery to the wholesale customers. Any reported leaks will be repaired in a timely manner.

2.7 Water Supply Contracts

It is a mandatory requirement for GBRA to require customers with any new or amended contracts or successor contracts to develop a water conservation plan. Minimum plan requirements for municipal customers entering or renewing GBRA contracts include:

- A completed TCEQ utility profile;
- Specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day.
- Metering devices having accuracy within plus or minus 5 percent in order to measure and account for the amount of water diverted from the supply source;
- A program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;
- Measures to determine and control unaccounted-for uses of water (for example, periodic visual inspections along distribution lines, annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.);
- A program of continuing public education and information regarding water conservation;

- A water rate structure which is not "promotional," meaning a rate structure which is cost-based and which does not encourage the excessive use of water;
- A reservoir systems operation plan, if applicable, providing for the coordinated operation of reservoirs owned by the utility within a common watershed or river basin in order to optimize available water supplies;
- A means of implementation and enforcement of conservation practices, as evidenced by either: 1) a copy of the ordinance, resolution, or tariff, indicating official adoption of the water conservation plan by the customer; or 2) a description of the authority by which the customer will implement and enforce the water conservation plan; and
- Documentation of coordination with the regional water planning groups for the service area of the customer in order to ensure consistency with the appropriate regional water plans.

Water conservation plans must include the following additional elements if the customer serves, or plans to serve in the next 10 years, a population of 5,000 or greater:

- A program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control water loss;
- A record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes: residential, commercial, public and institutional, and industrial; and
- For wholesale water customers, that they include a requirement that every wholesale water supply contract entered into or renewed after official adoption of the customer's water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable TCEQ requirements.

Other measures that the customer could adopt to meet the stated conservation goals might include but are not limited to:

- Measurement and control of excessive pressure in the distribution system;
- Ordinances to promote efficiency and avoid water waste;
- Plumbing fixture replacement and retrofit programs;

- Other beneficial reuse of water such as grey water and rainwater harvesting systems; and
- Other measures as may be applicable.

All customer plans must be reviewed and approved by GBRA staff before water sales contracts are signed.

2.8 Reservoir Operations Plan

This requirement is not applicable to the GBRA Luling Water Treatment Plant.

2.9 Ordinance/Resolution and Implementation

By resolution dated April 15, 2009, the GBRA Board of Directors adopted the Water Conservation Plan for the GBRA Luling Water Treatment Plant. The General Manager or his/her designee is authorized and directed to implement the applicable provisions of this plan. The General Manager or his/her designee will act as the administrator of the plan, oversee the execution and implementation of the plan, and will be responsible for keeping adequate records for program verification.

2.10 Coordination with Regional Planning Groups

The water service area of the GBRA Luling Water Treatment Plant is located within the South Central Texas Regional Water Planning Area (Region L) and the GBRA will provide a copy of the Plan to Region L.

2.11 Education and Information Program

GBRA recognizes that water conservation significantly benefits individuals and communities in terms of long-term water availability and reduced costs. The most readily available and lowest cost method of promoting water conservation is to inform the retail water users about ways to save water in homes and businesses, in landscaping and lawn uses, and in recreational use. GBRA will provide the Contracting Parties with literature on conservation to be passed on to their respective retail customers. The Contracting Parties are responsible for implementing an ongoing education program promoting water conservation through distribution of educational material and by conducting workshops.

3. Drought Management Plan

3.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, GBRA adopts the following Drought Contingency Plan (the Plan).

3.2 Public Involvement

Opportunity for the wholesale water customers to provide input into the preparation of the Plan was provided by GBRA by means of supplying the Contracting Parties with a copy of the Plan and receiving comments by email. The public was invited to view and make comments on the Plan at GBRA's general office by publication and by placement of the Plan on a public website. The Plan was adopted under the open meetings requirement of the TCEQ during the April 15, 2009 Board of Directors meeting.

3.3 Wholesale Water Customer Education

GBRA will periodically provide wholesale customers 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 providing a copy of the Plan to each wholesale water customer.

3.4 Coordination with Regional Water Planning Groups

The water service area of the GBRA Luling Water Treatment Plant is located within the South Central Texas Regional Water Planning Area (Region L) and the GBRA will provide a copy of the Plan to Region L.

3.5 Authorization

The General Manager or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary

to protect public health, safety, and welfare. The General Manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

3.6 Application

The provisions of this Plan shall apply to all customers utilizing water provided by GBRA from the GBRA Luling Water Treatment Plant. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

3.7 Triggering Criteria for Initiation and Termination of Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and/or demand conditions on a weekly basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by email, mail, or telephone. The news media will also be informed by the GBRA.

The triggering criterion to be monitored for determining drought response stages are the demand for treated water delivered to the Cities of Lockhart and Luling, the flow past the Zedler Dam in Luling as measured by the USGS Gauge #08172000, and the flow of the Guadalupe River over the GBRA Saltwater Barrier and Diversion Dam. These criteria were selected based upon reviewing historical water treatment plant demands and provisions contained within the water rights used to divert water from the San Marcos River.

(a) Stage 1 – Mild Water Shortage Condition

Requirements for initiation – GBRA will recognize that a mild water shortage condition exists when water production at the GBRA Luling Water Treatment Plant for the City of Luling (not including the City of Lockhart demands) equals 2.5 MGD or greater for seven (7) consecutive days or when the average daily flow drops below 130 cfs at USGS Gauging Station #081720000.

Requirement for termination – Stage 1 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 30

consecutive days. GBRA will notify its wholesale customers and the media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

(b) Stage 2 – Moderate Water Shortage Condition

Requirements for initiation – GBRA will recognize that a moderate water shortage condition exists when the average daily flow drops below 80 cfs at USGS Gauging Station #08172000.

Requirement for termination – Stage 2 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 30 consecutive days (i.e., the flow at USGS Gauging Station #08172000 is greater than 80 cfs for 30 consecutive days). Upon termination of Stage 2, Stage 1 becomes operative, unless the trigger criteria for Stage 1 have not been met. GBRA will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 1 of the Plan.

(c) Stage 3 – Severe Water Shortage Condition

Requirements for initiation – GBRA will recognize that a severe water shortage condition exists when the average daily flow drops below 40 cfs at USGS Gauging Station #08172000.

Requirement for termination – Stage 3 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 30 consecutive days. Upon termination of Stage 3, Stage 2 becomes operative. GBRA will notify its wholesale customers and the media of the termination of Stage 3 in the same manner as the notification of initiation of Stage 1 of the Plan.

(d) Emergency Water Shortage Condition

Requirements for initiation – GBRA will recognize that an emergency water shortage condition exists when any of the following occur:

- A major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
- Natural or man-made contamination of the water supply source occurs.
- Water ceases to flow past the Zedler Dam located in Luling, Caldwell County, Texas.

Requirement for termination – The emergency water shortage condition may be rescinded when the General Manger or his/her designee deems appropriate. GBRA will notify its wholesale customers and the media of the termination of the emergency shortage condition in the same manner as the notification of initiation of Stage 1 of the Plan.

3.8 Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section 3.7, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

Stage 1 – Mild Water Shortage Conditions

Target: Achieve a voluntary 5 percent reduction in daily water demand for each retail utility utilizing the GBRA Luling Water Treatment Plant.

Best Management Practices for Supply Management:

- GBRA will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, groundwater, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.
- The City of Luling has priority on water produced by the WTP up to 2.5 MGD. Water produced in excess of the needs of the City of Luling is delivered to the City of Lockhart. As Luling demand increases, water supplied to Lockhart will be reduced. The Chief Operator will notify the GBRA Division Manager for Hays and Caldwell Counties and the GBRA Lockhart Operations Manager of the reduction of available water to Lockhart and the Lockhart Operations Manager will cause increased production from the City of Lockhart groundwater system to supply adequate water to meet demand within the Lockhart distribution system. The Lockhart Operations Manager will notify the Public Works Director of the City of Lockhart of the decrease in water from the Luling WTP and the need to increase production from the groundwater system.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use (e.g. implement Stage 1 of the customer's drought contingency plan).
- The General Manager, or his/her designee(s), will provide a weekly report to the news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 2 – Moderate Water Shortage Conditions

Target: Achieve a 10 percent reduction in daily water demand for each retail utility utilizing the GBRA Luling Water Treatment Plant.

Best Management Practices for Supply Management:

- GBRA will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, groundwater, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
- The General Manager, or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (e.g. implement Stage 2 of the customer's drought contingency plan).
- The General Manager, or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions and/or deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to procedures specified in Section 3.9 of the Plan.
- The General Manager, or his/her designee(s), will provide a weekly report to the news media with information regarding current water supply and/or demand

conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 3 – Severe Water Shortage Conditions

Target: Achieve a 15 percent reduction in daily water demand for each retail utility utilizing the GBRA Luling Water Treatment Plant.

Best Management Practices for Supply Management:

- GBRA will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, groundwater, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.
- If flow drops below 40 cfs at the USGS Gauging Station #08172000, the GBRA Chief Engineer will notify the Division Manager for Hays and Caldwell Counties. The Division Manager will consult with GBRA staff to determine at what minimal rate the WTP can divert water and maintain minimum required flow at the USGS Gauging Station #08172000. The GBRA Luling WTP Chief Operator will cause the water treatment plant to operate at the reduced rate and the Division Manager will inform the Public Works Directors of Lockhart and Luling of the reduced production rate.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate additional mandatory measures to reduce non-essential water use (e.g. implement Stage 3 of the customer's drought contingency plan).
- The General Manager, or his/her designee(s), will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer according to the procedures specified in Section 3.9 of the Plan if deemed appropriate.
- The General Manager, or his/her designee(s), will provide a weekly report to the news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Emergency Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section 3.7 of the Plan, the General Manager, or his/her designee(s), shall:

- Assess the severity of the problem and identify the actions needed and the time required to solve the problem.
- Inform the utility director or other responsible official of each wholesale water customer by telephone, email, or in person and suggest actions, as appropriate to alleviate problems (e.g., notification of the public to reduce water use until service is restored).
- If appropriate, notify city, county, and/or state emergency response officials for assistance.
- Undertake necessary actions, including repairs and/or clean-up as needed.
- Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

3.9 Pro Rata Water Allocation

In the event that the triggering criteria specified in Section 3.7 of the Plan for Stage 3 - Severe Water Shortage Conditions have been met, the General Manager, or his/her designee(s), is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039. A provision will be included in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code §11.039.

3.10 Enforcement

During any period when pro rata allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water deliveries:

- 2.0 times the normal water charge per 1,000 gallons for treated water deliveries in excess of the monthly allocation up through 5 percent above the monthly allocation.

- 2.5 times the normal water charge per 1,000 gallons for treated water deliveries in excess of the monthly allocation from 5 percent through 10 percent above the monthly allocation.
- 3.0 times the normal water charge per 1,000 gallons for treated water deliveries in excess of the monthly allocation from 10 percent through 15 percent above the monthly allocation.
- 3.5 times the normal water charge per 1,000 gallons for treated water deliveries more than 15 percent above the monthly allocation.

The above surcharges shall be cumulative.

3.11 Variances

The General Manager, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

(1) Compliance with this Plan cannot be technically accomplished during the duration of this water supply shortage or other condition for which the Plan is in effect.

(2) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Entities requesting an exemption from the provisions of this Plan shall file a petition for variance with the General Manager within 5 days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by GBRA and shall include the following:

(1) Name and address of the petitioner(s).

(2) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.

(3) Description of the relief requested.

(4) Period of time for which the variance is sought

(5) Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.

(6) Other pertinent information.

Variances granted by GBRA shall be subject to the following conditions, unless waived or modified by GBRA.

(1) Variances granted shall include a timetable for compliance with allocation requirements.

(2) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

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

3.12 Severability

It is hereby declared to be the intention of the GBRA that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such declaration shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the GBRA without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Appendix A

Luling Water Treatment Plant Utility Profile

Texas Commission on Environmental Quality

UTILITY PROFILE & WATER CONSERVATION PLAN REQUIREMENTS FOR MUNICIPAL WATER USE BY PUBLIC WATER SUPPLIERS

This form is provided to assist entities in water conservation plan development for municipal water use by a retail public water supplier. Information from this form should be included within a water conservation plan for municipal use. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Supply Division at (512) 239-4691.

Name of Entity: GBRA Luling Water Treatment Plant

Address & Zip: 933 E. Court St., Seguin, TX 78155

Telephone Number: (830) 379-5822 **Fax:** (830) 372-0868

Form Completed By: Darel Ball

Title: Division Manager-Hays/Caldwell Counties

Date:

Signature

Name and Phone Number of Person/Department responsible for implementing a water conservation program: William E. West, Jr. (830) 379-5822

UTILITY PROFILE

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).

2. Service area size (square miles): 25.4

3. Current population of service area: 19,147

4. Current population served:

a. water 19,110
b. wastewater n/a

5. Population served by water utility for the previous five years:

Year	Population
2004	5,466
2005	18,690
2006	18,777
2007	19,110
2008	19,147

6. Projected population for service area in the following decades:

Year	Population
2010	22,637
2020	28,384
2030	33,109
2040	37,854
2050	42,623

7. List source/method for the calculation of current and projected population:

2006 South Central Texas Regional Water Plan

B. Active Connections

1. Current number of active connections. Check whether multi-family service is counted as Residential _____ or Commercial _____

Treated water users:	Metered	Not-metered	Total
Residential			0
Commercial			0
Industrial			0
Other	2 (wholesale)		2

2. List the net number of new connections per year for most recent three years:

Year	_____	_____	_____
Residential	_____	_____	_____
Commercial	_____	_____	_____
Industrial	_____	_____	_____
Other	0	_____	_____

C. High Volume Customers

List annual water use for the five highest volume customers
(indicate if treated or raw water delivery)

	Customer	Use (1,000gal./yr.)	Treated/Raw Water
(1)	City of Luling	276,819	treated
(2)	City of Lockhart	457,885	treated
(3)			
(4)			
(5)			

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. Amount of water use for previous five years (in 1,000 gal.):
Please indicate: ~~Diverted Water~~
Treated Water

Year	2004	2005	2006	2007	2008
January	17,568	18,351	58,703	48,311	51,094
February	16,127	15,126	50,258	44,215	49,007
March	18,398	17,876	60,624	47,551	53,004

April	18,222	43,485	66,645	46,689	58,138
May	23,897	64,354	70,426	54,102	72,700
June	23,644	71,232	74,229	60,834	78,915
July	28,022	74,410	73,903	51,431	75,107
August	33,812	77,369	89,068	62,578	65,796
September	23,926	72,955	63,495	61,874	60,943
October	21,282	67,207	61,467	65,343	57,633
November	17,939	61,798	57,160	54,922	53,696
December	19,358	56,568	53,430	48,804	46,675
Total	262,195	640,731	779,408	646,654	722,708

Indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

Master meters at point of delivery to wholesale customers

2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types for the past five years.

Year	Residential	Commercial	Industrial	Wholesale	Other	Total Sold
2004				262,195		
2005				640,731		
2006				779,408		
2007				646,654		
2008				722,708		

3. List previous five years records for water loss (the difference between water diverted ~~(or treated)~~ and water delivered ~~(or sold)~~)

Year	Amount (gal.)	%
2004	16,276,000	5.9
2005	- 664,000	- 0.1
2006	- 5,381,000	- 0.7
2007	20,135,000	3.0
2008	81,906,000	10.2

4. Municipal water use for previous five years:

Year	Population	Total Water Diverted or Pumped for Treatment (1,000 gal.)
2004	5,466	278,471,000
2005	18,690	640,351,000
2006	18,777	774,075,000
2007	19,110	666,778,000
2008	19,147	804,675,000

B. Projected Water Demands

If applicable, attach projected water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirement from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

List all current water supply sources and the amounts authorized with each:

	Source	Amount Authorized	
Surface Water:	San Marcos River	4,422	acre-feet
Groundwater:			acre-feet
Contracts:			acre-feet
Other:			acre-feet

B. Treatment and Distribution System

1. Design daily capacity of system: 2.5 MGD
2. Storage Capacity: Elevated 0 MG, Ground 0.5 MG

3. If surface water, do you recycle filter backwash to the head of the plant?
   Yes X No _____. If yes, approximately 0.070 MGD.

4. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): N/A MGD

2. Is treated effluent used for irrigation on-site _____, off-site _____, plant washdown _____, or chlorination/dechlorination _____?
If yes, approximately _____ gallons per month.

3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. If possible, attach a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: _____%

2. Monthly volume treated for previous three years (in 1,000 gallons):

Year			
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Total			

REQUIREMENTS FOR WATER CONSERVATION PLANS FOR MUNICIPAL WATER USE BY PUBLIC WATER SUPPLIERS

In addition to the utility profile, a water conservation plan for municipal use by a public water supplier must include, at minimum, additional information as required by Title 30, Texas Administrative Code, '288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for ***municipal use in gallons per capita per day*** (see Appendix A). Note that the goals established by a public water supplier under this subparagraph are not enforceable.

Metering Devices

The water conservation plan must include a statement about the water supplier=s metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply.

Universal Metering

The water conservation plan must include and a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.

Unaccounted-For Water Use

The water conservation plan must include measures to determine and control unaccounted-for uses of water (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.).

Continuing Public Education & Information

The water conservation plan must include a description of the program of continuing public education and information regarding water conservation by the water supplier.

Non-Promotional Water Rate Structure

The water supplier must have a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. This rate structure must be listed in the water conservation plan.

Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies.

Enforcement Procedure & Plan Adoption

The water conservation plan must include a means of implementation and enforcement which shall be evidenced by 1) a copy of the ordinance, resolution, or tariff indicating **official adoption** of the water conservation plan by the water supplier; and 2) a description of the authority by which the water supplier will implement and enforce the conservation plan.

Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning group(s) for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

Additional Requirements:

required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within ten years)

1. Program for Leak Detection, Repair, and Water Loss Accounting

The plan must include a description of the program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water.

2. Record Management System

The plan must include a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water

sales and uses into the following user classes (residential; commercial; public and institutional; and industrial.

Plan Review and Update

Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

Best Management Practices Guide

On November 2004, the Texas Water Development Board=s (TWDB) Report 362 was completed by the Water Conservation Implementation Task Force. Report 362 is the Water Conservation Best Management Practices (BMP) Guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The BMP Guide is available on the TWDB's website at the link below or by calling (512) 463-7847.

http://www.twdb.state.tx.us/assistance/conservation/TaskForceDocs/WCITFBMPGuide.pdf

Appendix A

Definitions of Commonly Used Terms

Conservation B Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

Industrial use B The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, commercial fish production, and the development of power by means other than hydroelectric, but does not include agricultural use.

Irrigation B The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water through a municipal distribution system.

Municipal per capita water use B The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use B The use of potable water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day B The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

Pollution B The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Public water supplier B An individual or entity that supplies water to the public for human consumption.

Regional water planning group B A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, ' 16.053.

Retail public water supplier B An individual or entity that for compensation supplies water to the

public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

Reuse B The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

Water conservation plan B A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

Water loss - The difference between water diverted or treated and water delivered (sold). Water loss can result from:

1. inaccurate or incomplete record keeping;
2. meter error;
3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
4. leaks; and
5. water theft and unauthorized use.

Wholesale public water supplier B An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

If you have any questions on how to fill out this form or about the _____ program, please contact us at 512/239-_____.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

GUADALUPE-BLANCO RIVER AUTHORITY
RESOLUTION

A RESOLUTION ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR THE GBRA LULING WATER TREATMENT PLANT TO PROMOTE THE RESPONSIBLE USE OF WATER

WHEREAS, the Guadalupe-Blanco River Authority (the "GBRA") recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the GBRA recognizes that due to natural limitations and drought conditions, the GBRA cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the Texas Water Code and the regulations of the Texas Commission on Environmental Quality require that the GBRA adopt a drought contingency plan;

WHEREAS, the Board of Directors of the GBRA desires to adopt the Water Conservation Plan and Drought Contingency Plan for the GBRA Luling Water Treatment Plant.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GUADALUPE-BLANCO RIVER AUTHORITY THAT:

Section 1. The Board of Directors hereby approves and adopts the Water Conservation and Drought Contingency Plan for the GBRA Luling Water Treatment Plant. The GBRA commits to implement the requirements and procedures set forth in the adopted Plan.

Section 2. The Board of Directors does hereby find and declare that sufficient written notice of the date, hour, place, and subject of the meeting adopting this Resolution was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Resolution and the subject matter thereof has been discussed, considered and formally acted upon.

Section 3. The General Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code.

Section 4. Should any paragraph, sentence, clause, phrase, or word of this Resolution be declared unconstitutional or invalid for any reason, the remainder of this Resolution shall not be affected.

Approved and adopted by the Guadalupe-Blanco River Authority Board of Directors on this 15th day of April 2009.

T.L. Walker, Chair, Board of Directors

Attest:

Grace G. Kunde, Secretary-Treasurer