Guadalupe-Blanco River Authority
Cordillera Ranch Water System
Water Conservation Plan And Drought Contingency Plan

Water Conservation Plan

1. Introduction/Objectives

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (hereinafter the TCEQ) has developed guidelines and requirements governing the development of water conservation plans for public water suppliers. This water conservation plan is intended to meet those guidelines and requirements, although it is noted that the Guadalupe Blanco River Authority (hereinafter the GBRA) Cordillera Ranch Water System (hereinafter the Cordillera Utility) does not own a water right and, therefore, is not required to submit a water conservation plan to the TCEQ. In order to make best use of its available water supplies, the Cordillera has adopted this water conservation plan to guide its water conservation activities.

The objectives of this water conservation plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve efficiency in the use of water.
- To extend the life of current water supplies by reducing the rate of growth in demand.

2. Water Utility Profile

Appendix A to this water conservation plan is the Cordillera Utility profile in the format recommended by the TCEQ.

3. Conservation Goals

The Cordillera Utility's water conservation goals are to: (1) provide an adequate supply of water to meet the needs of its customers; and to (2) encourage its customers to implement water conservation techniques, primarily in landscape irrigation, that will reduce per capita and peak use demands.

TCEQ regulations state that all municipal water right holders set goals in gallons per capita per day (gpcd) and goals for maximum acceptable level of unaccounted-for water. The gpcd calculation as defined by TCEQ, is the total daily amount of water diverted or pumped for treatment by potable uses divided by the population served.

In order to set a future goal for per capita water use, a baseline per capita rate must be determined. It was decided to use the average of Year 2006 (a dry year) and Year 2007 (a wet year) as a baseline. Using data developed from GBRA records, it was determined that, in the Year 2006, Cordillera Utility customers had a total water use of approximately 14.9 million gallons. It is important to note that this value represents total water use by the Cordillera Utility from the Western Canyon Regional Water Supply System and supplemental wells. Using the average annual meter count and assuming 2.5 people per meter it is estimated that the retail service area had a population of 160. Therefore, the gpcd usage for the Cordillera Utility retail service area for the Year 2006 was 256 gpcd. The same procedure was used to determine the per capita use for 2007. Using a reported water use of 21.7 million gallons and an estimated population of 276, results in a Year 2007 per capita rate of 215 gpcd. Averaging this value with the Year 2006 values results in an average per capita rate of 236 gpcd. Projecting a five and ten-year per capita use goal forward from 2007 results in a 2012 goal and a 2017 goal. **The per capita goal for 2012 is 224 gpcd and the goal for 2017 is 213 gpcd.** This was determined by reducing the per capita use rate by 1% per year consistent with the Region L Water Conservation Water Management Strategy which recommends a goal of reducing an entity's per capita water use 1% a year until the gpcd is 140, then further reducing the gpcd by 0.25% a year.

In addition to the per capita water use goal above, **the GBRA Cordillera Utility service area has set a maximum unaccounted-for water goal of 10% for its service area.**

4. Performance Measures to Achieve Conservation Goals

4.1 Landscape Design and Installation- Property platted, approved, and filed with the agency of jurisdiction before the effective date of this water conservation plan will be grandfathered from provisions in this section with the exception of those items with a compliance date or required by law.

- Summer dormancy Zoysia, Bermuda and Buffalo grasses are the only authorized turf grasses to be installed on all new construction and renovation projects. Other drought tolerant grasses may be used by requesting a variance as outlined in this water conservation plan.

- Xeriscape conservation landscapes using only native or adapted trees, shrubs and flowers are encouraged with a minimum of two inches of mulch in all shrub and bed areas.

- Landscape irrigation will be required to include the following conservation features:

    - All new and refurbished automatic irrigation systems are to be equipped with rain and/or moisture sensors. All existing automatic irrigation systems are to be equipped with rain and/or moisture sensors by October2009.

    - The use of drip irrigation systems is encouraged. Water conservation features such as sprinkler heads that emit large drops rather than fine mist and sprinkler layouts that limit the impact of overspray and wind dispersion are required. Low volume irrigation shall be installed in areas less than 10 feet wide, such as median strips and parking islands.

    - Turf grass and the associated irrigation system (if provided) shall be limited to an area no more than 2.5 times the building foundation footprint, with a 12,000 sq-ft maximum. The footprint may include both the house and the garage, but not the driveway or patio. The turf grass layout and the irrigation system installation may be adjusted to consider topography, easements, rights-of-way, and other factors that would present impractical irrigation design problems.

    - All in-ground irrigation systems installed are to be zoned irrigation systems based on plant watering requirements.

    - A landscape/irrigation system plan must be submitted to GBRA or its designated agent for review and approval. Such plan must be supported by a landscaper's rendering, a layout sketch(s) or enough detail to allow analysis that the plan meets the above requirements.

    - Irrigation system installers must provide the system design to the homeowner. Scheduling recommendations shall be posted in or near the automatic irrigation controller box.

    - Pressure reducing valves and/or remote control valves are required for each station with flow control. A pressure reducing valve installed in-line at the meter serving the house, as well as the irrigation system, is acceptable.

    - Turf grass installed during or associated with new construction shall have a base minimum of 4 inches of topsoil. Soil in these areas may be either native soil from the site or imported, improved soil. Improved soil will be

a mix of no less than 20% compost blended with sand and loam. Caliche will not be considered as soil.

- A back-flow prevention device installed upstream of the irrigation system is required in accordance with applicable state laws.

4.2 Landscape Watering Management

- Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be prohibited at all times between the hours of 10:00 am and 8:00 pm. Landscape watering is also restricted further during the times the Drought Contingency Plan is in effect.

- During the months of October through April, customers are encouraged to limit irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems to twice a week between the hours of midnight to 10:00 am and 8:00 pm to midnight according to the following schedule:
  - Even-numbered addresses are allowed lawn watering two days per week, on Tuesday and Friday.
  - Odd-numbered addresses are allowed lawn watering two days per week on Monday and Thursday.
  - The watering of non-established trees, shrubs and bushes will be accomplished on the same days.
  - If there is no street address associated with the property, such as a parkway or if there is more than one street address associated with a single contiguous property, the irrigation days are Wednesday and Saturday.

- During the months of May through September, customers are required to limit irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems to twice a week between the hours of midnight to 10:00 am and 8:00 pm to midnight according to the following schedule:
  - Even-numbered addresses are allowed lawn watering two days per week, on Tuesday and Friday.
  - Odd-numbered addresses are allowed lawn watering two days per week on Monday and Thursday.
  - The watering of non-established trees, shrubs and bushes will be accomplished on the same days.
  - If there is no street address associated with the property, such as a parkway or if there is more than one street address associated with a single contiguous property, the irrigation days are Wednesday and Saturday.

- Irrigation of landscaped areas is permitted at any time by means of a hand-held hose with a positive cutoff device, a faucet filled bucket or watering can of five (5) gallons or less, or a drip irrigation system.

- Newly planted lawns and landscaping shall not be watered at any time other than those hours and days allowed for all other landscaping except by a variance issued by the GBRA.
    - The variance application shall be completed by the owner of the property seeking the variance.
    - The application shall be accompanied by written documentation specifying the planting date.
    - The variance will be valid for thirty (30) days from the date of issuance.
    - The variance allows for additional watering outside the allowable hours and days of this section except that no watering shall occur between the hours of noon and 6:00 pm.
    - No variances will be issued when Stages 3 or 4 of the Drought Contingency Plan are in effect.

- The following uses of water are defined as "waste of water" and are prohibited at all times:
    - Allowing water to run off into a gutter, ditch, or drain;
    - Failing to repair a controllable leak; and
    - Washing sidewalks, driveways, parking areas, tennis courts, or other impervious hardscapes, except to alleviate immediate health or fire hazards.
    - Exclusions to this provision include:
        - Washing or power washing patios and porches associated with a structure;
        - Washing a car, boat, RV or other motorized vehicle if a 5 gallon bucket or hand-held hose equipped with a positive cutoff device is used;
        - Power washing of a structure prior to maintenance, repainting, or repairs; and
        - Operation of an automatic sprinkler system for the purpose of maintenance and testing.

4.3 Other Regulated Activities

- Car washes for fundraisers – all car washes for the purposes of fundraisers shall be conducted at a commercial car wash and use the commercial car wash's equipment.

- Golf courses – Golf courses shall not irrigate roughs or fairways with potable water. Greens and tee boxes may be irrigated with potable water in conjunction with reuse. A water budget will be submitted to the GBRA on May 1 of each year. The water budget will outline the planned use of water with appropriate reductions during the varying drought stages as necessary. Use of potable water for landscape irrigation in and around the clubhouse will be permitted, but must conform to all other requirements for landscape irrigation.

- Annual irrigation system analysis for athletic fields and large properties – an annual irrigation system analysis demonstrating no water waste shall be required for all

athletic fields and large properties. This system analysis shall be submitted in writing to the GBRA on or before May 1st of each year beginning on May 1, 2009.

- Cooling Towers – Cooling towers, not utilizing recycled water, shall operate a minimum of four cycles of concentration. For the purposes of this section, "concentration" means re-circulated water that has elevated levels of total dissolved solids as compared to the original make-up water. Newly constructed cooling towers shall be operated with conductivity controllers as well as make-up and blow down meters.

- Commercial dining facilities – all commercial dining facilities shall utilize positive shut-offs for hand-held dish rinsing wands.

- Vehicle wash facilities – vehicle wash facilities, commencing operation on or after October 2009 using conveyorized, touchless, and/or rollover in-bay technology shall reuse a minimum of fifty percent (50%) of water from previous vehicle rinses in subsequent washes.

5. Metering

Metering at the point of diversion – The Cordillera Utility has installed meters at each of the water entry points into the system to accurately measure the amount of water diverted. All meters are accurate to within 5% and are calibrated at least annually.

Universal Metering – The Cordillera Utility requires the metering of all connections to the water system, including residential, commercial, industrial, and municipal use. All water meters will be periodically checked for accuracy and replaced as needed.

6. Water Audit

The Cordillera Utility will maintain a record management system that tracks water pumped, delivered, and sold with the ability to determine the amount of water losses. The system allows for the desegregation of sales into residential, commercial, public/institutional, and industrial uses. The Cordillera Utility will conduct an annual audit to determine the amount of unaccounted for water. Abandoned water meters will be pulled from the water distribution system.

7. Leak Detection and Repair

Cordillera Utility crews and personnel will look for and report evidence of leaks in the water distribution system. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

8. Continuing Public Education and Information Campaign

The continuing public education and information campaign on water conservation includes the following elements:

- Insert water conservation information with water bills. Inserts will include material developed by Cordillera Utility staff and material obtained from the Texas Water Development Board, the TCEQ, and other sources.
- Encourage local media coverage of water conservation issues and the importance of water conservation.
- Make water conservation brochures and other water conservation materials available to the public.

9. Water Rate Structure

The Cordillera Utility has adopted a non-promotional water rate structure attached as Appendix B.

10. Ordinance/Resolution and Implementation

The GBRA Board of Directors adopted the resolution dated October 15, 2008 for the water conservation plan for the Cordillera Utility. The Cordillera Utility Manager or his/her designee is authorized and directed to implement the applicable provisions of this water conservation plan. The Cordillera Utility Manager or his/her designee will act as the administrator of the water conservation plan, oversee execution and implementation of the water conservation plan, and will be responsible for keeping adequate records for program verification.

11. Coordination with the Regional Water Planning Group

The service area of the Cordillera Utility is located within the South Central Texas Regional Planning Area and the Cordillera Utility will provide a copy of this water conservation plan to the South Central Texas Regional Water Planning Group in care of the San Antonio River Authority upon request.

12. Additional Water Contract Requirements

It is Cordillera Utility's policy to include in every wholesale water supply contract entered into or renewed after official adoption of this water conservation plan, and including any contract extensions, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using applicable elements in 30 TAC 288, Subchapter A. If the wholesale customer intends to resell the water, then the contract between the Cordillera Utility and the wholesale customer must provide that the contract for the resell of the water must have water conservation requirements so that each successive customer in the resell of the water will be required to implement water conservation measures in accordance with 30 TAC 288, Subchapter A.

13. Revisions to the Water Conservation Plan

The Cordillera Utility shall review and update, as appropriate, the water conservation plan at least every five (5) years based on new or updated information, such as the adoption or revision of the regional water plan.

14. Severability

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

Drought Contingency Plan

1. Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and 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, the Cordillera Utility hereby adopts the following regulations and restrictions on the delivery and consumption of water through the resolution dated October 15, 2008 approved by the GBRA Board of Directors (attached as Appendix C).

Water uses regulated or prohibited under this Drought Contingency Plan (the Drought Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section 9 of this Drought Plan.

2. Public Involvement

Opportunity for the public to provide input into the preparation of the Drought Plan was provided by the Cordillera Utility by means of a notice to customers on the monthly service billing regarding availability of the Drought Plan, public notice in the San Antonio Express News and other area newspapers, and posting on the GBRA website (www.gbra.org).

3. Public Education

The Cordillera Utility will periodically provide the public with information about the Drought Plan, including information about the conditions under which each stage of the Drought 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 service billing inserts, notices in local newspapers as well as the San Antonio Express News, and notice on the GBRA website (www.gbra.org).

4. Coordination with Regional Water Planning Groups

The service area of the Cordillera Utility is located within the South Central Texas Regional Planning Area and the Cordillera Utility will provide a copy of this Drought Plan to the

South Central Texas Regional Water Planning Group in care of the San Antonio River Authority upon request.

5. Authorization

GBRA's Division Manager-Kendall/Comal County or his/her designee (hereinafter the Manager) is hereby authorized and directed to implement the applicable provisions of this Drought Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The 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 Drought Plan.

6. Application

The provisions of this Drought Plan will apply to all persons, customers, and property utilizing water provided by the Cordillera Utility. The terms "person" and "customer" as used in the Drought Plan include individuals, corporations, partnerships, associations, and all other legal entities.

7. Definitions

For the purposes of this Drought Plan, the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

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

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

Customer: any person, company, or organizations using water supplied by the Cordillera Utility and paying a retail water bill.

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

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

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

Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability and use.

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

Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

(a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except as otherwise provided under this Plan;
(b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
(c) use of water to wash down any impervious cover including sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
(d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
(e) flushing gutters or permitting water to run or accumulate in any gutter or street;
(f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
(g) use of water in an aesthetic feature including fountain or pond except where necessary to support aquatic life;
(h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
(i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.

8. Criteria for Initiation and Termination of Drought Response Stages

The Manager shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the Drought Plan, that is, when the specified “triggers” are reached. These triggers can either be reached by high system demand or lack of water supply.

The requirements for implementation and termination triggers described below are based upon information provided by the Western Canyon Division of GBRA which supplies the treated drinking water to the retail operations of the Cordillera Utility. The Western Canyon Division in

turn receives its information from the Water Resources Division of GBRA. The Water Resources Division administers water sales contracts from Canyon Reservoir. GBRA is responsible for reservoir water management and release within the "conservation pool"; between 800 feet-mean sea level (msl) and the normal operating elevation of 909 feet-msl. The Water Resources Division has developed a "drought monitoring procedure" for identifying a drought worse than the drought of record for the contributing watershed of Canyon Reservoir. The General Manager of GBRA 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 the GBRA Drought Contingency Plan which is based upon reservoir storage or water surface elevation. The Water Resources Division of GBRA will notify the Western Canyon Division of the initiation or termination of the GBRA Drought Contingency Plan response stages.

The Cordillera Utility supplements its supply from Canyon Reservoir with wells in the Trinity Aquifer; therefore, water availability information for this aquifer must be monitored as well. Trinity well data is based upon information provided by the City of Fair Oaks Ranch Utilities to the Manager.

In addition to the triggering criteria above, the Cow Creek Groundwater Conservation District has developed drought stage triggers based upon the Palmer Drought Index. While the Palmer Drought Index provides a good estimation of the severity of a drought, it cannot accurately portray the current water supply situation for individual utilities. Therefore, the triggering criteria outline below will be used as the primary drought trigger criteria for the Cordillera Utility. However, when the Cow Creek Groundwater Conservation District has entered any stage of drought restrictions, the Cordillera Utility will limit groundwater use to the greatest practical extent (relying more on surface water), based upon current supply and demand conditions.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source under drought of record conditions.

Stage 1 Triggers – MILD Water Shortage Conditions

Requirements for Initiation and Termination

Stage 1 will be in effect annually, beginning on May 1st through September 30th.

Stage 2 Triggers – MODERATE Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 9 of the Drought Plan when any of the following conditions exist:

- When notified that levels in Canyon Reservoir reach Stage 1 conditions as defined in the GBRA Drought Contingency Plan (895 ft above msl);
- When the Fair Oaks Utilities test well level 30-day average is less than or equal to 1,040 feet above msl;
- When demand is 75% of pumping capacity at the Joe Klar pumping facility; or
- When demand limits storage to 41% of capacity at the Joe Klar storage facility.

Requirements for Termination

Stage 2 of the Drought Plan may be rescinded when the condition listed as a triggering event ceases for a period of 30 days or sooner at the Manager's discretion. Upon termination of Stage 2, Stage 1 becomes operative.

Stage 3 Triggers – SEVERE Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 9 of the Drought Plan when any of the following conditions exist:

- When notified that levels in Canyon Reservoir reach Stage 2 conditions as defined in the GBRA Drought Contingency Plan (890 ft above msl);
- When the Fair Oaks Utilities test well level 30-day average is less than or equal to 1,010 feet above msl;
- When demand is 85% of pumping capacity at the Joe Klar pumping facility; or
- When demand limits storage to 33% of capacity at the Joe Klar storage facility.

Requirements for Termination

Stage 3 of the Drought Plan may be rescinded when the condition listed as a triggering event ceases for 30 days or sooner at the Manager's discretion. Upon termination of Stage 3, Stage 2 becomes operative.

Stage 4 Triggers – CRITICAL Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section 9 of the Drought Plan when any of the following conditions exist:

- When notified that levels in Canyon Reservoir reach Stage 3 conditions as defined in the GBRA Drought Contingency Plan (880 ft above msl);
- When the Fair Oaks Utilities test well level 30-day average is less than or equal to 975 feet above msl;
- When demand is 95% of pumping capacity at the Joe Klar pumping facility; or
- When demand limits storage to 25% of capacity at the Joe Klar storage facility.

Requirements for Termination

Stage 4 of the Drought Plan may be rescinded when the conditions listed as a triggering event ceases for 30 days or sooner at the Manager's discretion. Upon termination of Stage 4, Stage 3 becomes operative.

Stage 5 Triggers – EMERGENCY Water Shortage Conditions

Requirements for Initiation

Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Drought Plan when the Manager, or his/her designee, determines that a water supply emergency exists based on:

- Major water line breaks, or pump or other system failures occur, which cause unprecedented loss of capability to provide water service; or
- Natural or man-made contamination of water supply source(s).

Requirements for Termination

Stage 5 of the Drought Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days or sooner at the Manager's discretion.

Stage 6 Triggers – WATER ALLOCATION

Requirements for Initiation

At the Manager's discretion, allocation of water supplies may be adopted in the event that water shortage conditions threaten public health, safety, and welfare.

Requirements for Termination

Water allocation will be terminated when the Manager had deemed that water supply conditions are such that water allocation is not longer needed.

9. Drought Response Stages

The Manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section 8 of this Drought Plan, shall determine that a mild, moderate, severe, critical, or emergency water shortage conditions exists and shall implement the following notification procedures:

Notification

Notification of the Public:

The Manager or his/her designee shall notify the public by means of any or all of the following:

- GBRA website (www.gbra.org)
- Publication in a newspaper of general circulation
- Notice on the monthly billing
- Public service announcements
- Posted notices at mail-box delivery points

Additional Notification:

The Manager or his/her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

- Homeowner associations
- Fire Chief(s)
- Local Emergency Planning Commission (LEPC)
- TCEQ San Antonio Regional Office
- Major water customers

Stage 1 Response – MILD Water Shortage Conditions

Target: Achieve a voluntary 10% reduction in daily water demand relative to water demand without the water use restrictions below.

Best Management Practices for Supply Management:

The Cordillera Utility will monitor end main water pressures and reduce input pressure if end pressure is excessive.

Water Use Restrictions for Reducing Demand

(a) Customers are required to limit landscape watering to twice per week between the hours of 12:00 midnight to 10:00 am and 8:00 pm to 12:00 midnight according to the following schedule:
   a. Even-numbered addresses are allowed lawn watering two days per week, on Tuesday and Friday.
   b. Odd-numbered addresses are allowed lawn watering two days per week on Monday and Thursday.
   c. The watering of non-established trees, shrubs and bushes will be accomplished on the same days.
   d. If there is no street address associated with the property, such as a parkway or if there is more than one street address associated with a single contiguous property, the irrigation days are Wednesday and Saturday.

(a) The watering of non-established trees, shrubs and bushes will be accomplished on the same days as above.

(b) All non-public swimming pools must have a minimum of 25% of the surface area covered with evaporation screens when not in use. Inflatable pool toys or floating decorations may be used.

(c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response – MODERATE Water Shortage Conditions

Target: Achieve a 20% reduction in daily water demand relative to water demand without the water use restrictions below.

Best Management Practices for Supply Management:

In addition to the best management practices for supply management listed under Stage 1, the Cordillera Utility will also do the following:

- Reduce flushing of water mains to the minimum required;

- Use more repair crews if necessary to allow for a quicker response time for water line leak repair; and
- Begin monitoring customer's water use for compliance with water use restrictions by way of drive-bys.

Water Use Restrictions for Demand Reduction

Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

(a) Landscape watering is permitted once per week between the hours of 12:00 midnight to 10:00 am and 8:00 pm to 12:00 midnight according to the following schedule:[1]
   a. If the last digit of the address ends in 0 or 9 the irrigation day is Monday.
   b. If the last digit of the address ends in 1 or 8 the irrigation day is Tuesday.
   c. If the last digit of the address ends in 2 or 7 the irrigation day is Wednesday.
   d. If the last digit of the address ends in 3 or 6 the irrigation day is Thursday.
   e. If the last digit of the address ends in 4 or 5 the irrigation day is Friday.

(b) The watering of non-established trees, shrubs and bushes will be accomplished on the same days as above.

(c) If there is no street address associated with the property, such as a parkway, or if there is more than one street address associated with a single contiguous property, the irrigation day is Wednesday.

(d) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated landscape watering days between the hours of 12:00 midnight and 10:00 am and between 8:00 pm and 12:00 midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public in contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

(e) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 am and between 8:00 pm and 12:00 midnight.

(f) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

[1] Customers who install new landscapes during drought periods may apply for a variance to request additional watering days. Newly planted grass can survive once-per-week watering after only three weeks. Variances to allow additional watering days are only given during the three-week time period immediately following installation of new turfgrass.

(g) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the Utility.

(h) Golf course watering of greens and tee boxes in conjunction with reuse will be limited to the reductions planned in the water budget. Use of potable water for landscape irrigation in and around golf course clubhouses is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 am and between 8:00 pm and 12:00 midnight.

(i) All restaurants are prohibited from serving water to patrons except upon request of the patron.

(j) The following uses of water are defined as non-essential and are prohibited:
   a. Wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
   b. Use of water to wash down buildings or structures for purposes other than immediate fire protection;
   c. Use of water for dust control;
   d. Flushing gutters or permitting water to run or accumulate in any gutter or street; and
   e. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response – SEVERE Water Shortage Conditions

<u>Target:</u> Achieve a 25% reduction in total daily water demand relative to water demand without the water use restrictions below.

<u>Best Management Practices for Supply Management:</u>

In addition to the best management practices for supply management listed under Stage 2, the Cordillera Utility will also do the following:

- Eliminate the flushing of water mains unless required for decontamination; and
- Monitor customers for compliance and notify violators verbally or in writing as the situation dictates.

<u>Water Use Restrictions for Demand Reduction:</u>
All requirements of Stage 2 shall remain in effect during Stage 3 except:

a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 am and between 8:00 pm and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently

installed automatic sprinkler systems only. The use of hose-end sprinklers is prohibited at all times.

b) Golf course watering of greens and tee boxes in conjunction with reuse will be limited to reductions planned in the water budget. The watering of landscape irrigation in and around the clubhouse shall adhere to the same restrictions as (a) above.

c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 Response – CRITICAL Water Shortage Conditions

Target: Achieve a 30% or greater reduction in daily water demand relative to water demand without the water use restrictions below.

Best Management Practices for Supply Management:

In addition to the best management practices for supply management listed under Stage 3, the Cordillera Utility will also do the following:

- Upon written notice, disconnect the water meters of willful violators if absolutely necessary to prevent the deliberate wasting of water.

Water Use Restrictions for Demand Reduction:

All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 am and 10:00 am and between 8:00 pm and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 am and 10:00 am and between 6:00 pm and 10:00 pm.

(c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.

(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(e) Applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved on a case by case basis. Time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Stage 5 Response – EMERGENCY Water Shortage Conditions

Target: Achieve a 50% or greater reduction in daily water demand relative to water demand without the below water use restrictions.

Best Management Practices for Supply Management:

In addition to the best management practices for supply management listed under Stage 4, the Cordillera Utility will also do the following:

- Contact the County Judge and/or emergency management coordinator to initiate use of the Community Alert Network (CAN), an automated phone dial up;
- Call the 10 largest water customers, and if necessary, use runners in key areas to begin spreading the message of a major outage;
- Visit businesses that are local gathering places; and
- Inform the County Sheriff's office.

Water Use Restrictions for Demand Reduction:

All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

(a) Irrigation of landscaped areas is absolutely prohibited.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

(c) Business process water shall be reduced to a basic amount necessary only for the continuance of a business's workday or product production or protection. Associated uses such as equipment washing shall be deferred.

Stage 6 Response – WATER ALLOCATION

In accordance with each customer's Service Agreement, the Cordillera Utility retains the right to allocate water supplies. At the Manager's discretion, allocation of water supplies may be adopted in the event that water shortage conditions threaten public health, safety, and welfare. The following threshold amounts will be utilized, beyond which a surcharge shall be assessed under a Water Allocation Condition.

Single-Family Residential Customers

The allocation to residential water customers residing is a single-family dwelling shall be as follows:

Persons Per Household	Gallons per Month
1 or 2	4,000
3 or 4	5,000
5 or 6	6,000
7 or 8	7,000
9 or 10	8,000
11 or more	10,000

"Household" means the residential premises served by the customer's meter. "Persons per household" includes only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer's household is comprised of two (2) persons unless the customer notifies the Cordillera Utility of a greater number of persons per household on a form prescribed by the Manager. The Manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the Cordillera Utility's offices to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the Manager. When the number of persons per household increases so as to place the customer in a different allocation category, the customer must notify the Cordillera Utility on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the Cordillera Utility in writing within ten (10) days. In prescribing the method for claiming more than two (2) person per household, the Manager shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the Cordillera Utility of a reduction in the number of persons in a household shall be subject to a fine up to $200.

Residential customers shall pay the following surcharge: An additional 50% will be calculated for the existing block rate (the amount typically paid per 1,000 gallons for all water used above the monthly minimum) per thousand gallon increment, over and above the threshold amounts stated above. Up to the threshold amounts, the monthly bill will be calculated in the normal manner.

Master-Metered Multi-Family Residential Customers

The allocation to a customer billed from a master meter which jointly measures water to multiple permanent residential dwelling units (example: apartments, mobile homes) shall be allocated 4,000 gallons per month for each dwelling unit. It shall be assumed that such a customer's meter serves two dwelling units unless the customer notifies the Cordillera Utility of a greater number on a form prescribed by the Manager. The Manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the Cordillera Utility offices to complete and sign the form claiming more than two (2) dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the Manager. If the number of dwelling units served by a master meter is reduced, the customer shall notify the Cordillera Utility in writing within two (2) days. In prescribing the method for claiming more than two (2) dwelling units, the Manager shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of dwelling units served by a master meter or fails to timely notify the Cordillera Utility of a reduction in the numbers of dwelling units shall be subject to a fine up to $500.

Master meter multi-family customers shall pay the following surcharge: An additional 50% will be calculated for the existing block rate (the amount typically paid per 1,000 gallons for all water used above the monthly minimum) per thousand gallon increment

over and above the threshold amount stated above. Up to the threshold amount of 4,000 gallons per dwelling unit, the monthly bill will be calculated in the normal manner.

Commercial Customers

The allocation to a commercial customer, other than an industrial customer, who uses water for processing purposes shall be 75% of the customer's usage for the corresponding month's billing period for the previous 12 months, but in any case, not less than 4,000 gallons per month. The Manager shall give his/her best effort to see that notice of each commercial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the Cordillera Utility to determine the allocation. Upon request of the customer or at the initiative of the Manager, the allocation may be reduced or increased if: (1) the designated period does not accurately reflect the customer's normal water usage; or (2) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Operations Manager-Upper Basin.

An additional 50% will be calculated for the existing block rate (the amount typically paid per 1,000 gallons for all water used above the monthly minimum) per thousand gallon increment over and above the threshold amount calculated in accordance with the above procedure. Up to the threshold amounts, the monthly bill will be calculated in the normal manner.

Industrial Customers

The allocation to an industrial customer who uses water for processing purposes shall be 85% of the customer's usage for the corresponding month's billing period for the previous 12 months, but in any case not less than 6,000 gallons per month. The Manager shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be

the customer's responsibility to contact the Cordillera Utility to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the Manager, the allocation may be reduced or increased if: (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period; (2) the customer has added or is in the process of adding significant additional processing capacity; (3) the customer has shutdown or significantly reduced the production of a major processing unit; (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited; or (5) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Operations Manager-Upper Basin.

An additional 50% will be calculated for the existing block rate (the amount typically paid per 1,000 gallons for all water used above the monthly minimum) per thousand gallon increment over and above the threshold amount calculated in accordance with the above procedure. Up to the threshold amounts, the monthly bill will be calculated in the normal manner.

10. Enforcement

(a) No person shall knowingly or intentionally allow the use of water from the Cordillera Utility's water distribution system for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Drought Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the Manager, or his/her designee, in accordance with provisions of this Drought Plan.

(b) Any person who violates this Drought Plan may be subject to a civil fine of not less than fifty dollars ($50) and not more than five hundred dollars ($500). Each day that one or more of the provisions in this Drought Plan is violated shall constitute a separate offense. Upon commission of the third violation, with the two previous

violations having been brought to the attention of the customer with adequate time allowed for correction, the Manager shall be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of the Cordillera Utility's existing re-connection charge and the fine(s) attendant to the violations. In addition, suitable assurance must be given to the Manager that the same action shall not be repeated while the Drought Plan is in effect. Compliance with this Drought Plan may also be sought through injunctive relief in the district court or the county court-at-law.

(c) Any person, including a person classified as a water customer of the Cordillera Utility, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use water as it was used in violation of this Drought Plan and that the parent could not have reasonably known of the violation.

(d) The Manager, or at the Manager's discretion, an officer of the county sheriff's department may issue a citation to a customer the Manager believes to be in violation of this Drought Plan, in accordance with regulatory statute. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and a directive to appear in court on the date shown on the citation for which the date shall not be less than three (3) days nor more than five (5) days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person

over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence.

11. Variances

The Manager may grant a temporary variance for existing water uses otherwise prohibited under this Drought Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

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

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

Persons requesting an exemption from the provisions of this Drought Plan shall file a petition for variance with the Cordillera Utility within five (5) days after the Drought Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the Manager, and shall include the following:

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

(b) Purpose of water use.

(c) Specific provision(s) of the Drought Plan from which the petitioner is requesting relief.

(d) Detailed statement as to how the specific provision of the Drought Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if the petitioner complies with this Drought Plan.

(e) Description of the relief requested.

(f) Period of time for which the variance is sought.

(g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Drought Plan and the compliance date.

(h) Other pertinent information.

Variances granted by the Cordillera Utility shall be subject to the following conditions, unless waived or modified by the Manager:

(a) Variances granted shall include a timetable for compliance.

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

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

Appendix A

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: Guadalupe-Blanco River Authority (Cordillera Ranch Subdivision)

Address & Zip: 933 East Court, Seguin, Texas 78155

Telephone Number: (830) 379-5822 Fax: (830) 885-2564

Form Completed By: Michael Urrutia

Title: Division Manager

Date:

Signature: Michael Urrutia 10/3/08

Name and Phone Number of Person/Department responsible for implementing a water conservation program: Michael Urrutia

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): 12.0

3. Current population of service area: 490

4. Current population served:

a. water 290
b. wastewater 290

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

Year	Population
2007	270
2008	290

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

Year	Population
2010	340
2020	590
2030	840
2040	1090
2050	1640

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

The number of meters multiplied by a factor of 2.5 persons per meter was used to calculate the current population. For future population, we assumed a growth rate of 10 meters per year.

B. Active Connections

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

Treated water users:	Metered	Not-metered	Total
Residential	116	None	116
Commercial	23	None	23
Industrial	N/A		
Other	N/A		

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

Year	2007	2008
Residential	30	8
Commercial	4	8
Industrial		
Other		

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)	520069	689	Treated
(2)	520113	484	Treated
(3)	520030	454	Treated
(4)	520218	445	Treated
(5)	520087	424	Treated

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	2007	2008 (as of Aug 08)			
January	601	1,769			
February	994	1,601			
March	1,094	2,062			

April	1,265	2,388			
May	1,437	3,241			
June	1,985	4,745			
July	1,736	3,808			
August	2,725	3,176			
September	2,621				
October	3,042				
November	2,482				
December	1,705				
Total	21,687	22,740			

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).

The above figures were determined by water sales at customer's water meters.

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
2007	16,406					16,406
2008	19,353					19,353

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

Year	Amount (gal.)	%

4. Municipal water use for previous five years:

Year	Population	Total Water Diverted or Pumped for Treatment (1,000 gal.)
2007	270	21,687
2008	290	22,740

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:	GBRA-Western Canyon	500	acre-feet
Groundwater:	Trinity Aquifer wells	N/A	acre-feet
Contracts:			acre-feet
Other:			acre-feet

B. Treatment and Distribution System

1. Design daily capacity of system: _____ MGD
2. Storage Capacity: Elevated _____ MGD, Ground 0.40 MGD

3. If surface water, do you recycle filter backwash to the head of the plant? Yes _____ No _____. If yes, approximately _____ 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): 0.065 MGD

2. Is treated effluent used for irrigation on-site ____, off-site __X__, plant washdown __X__, or chlorination/dechlorination __X__?
If yes, approximately 600,000 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.

   The Cordillera Wastewater Treatment plant treats wastewater from the Cordillera Ranch Subdivision. All effluent is reused by the Golf course at Cordillera Ranch. The name on the TCEQ permit is Guadalupe-Blanco River Authority and Cordillera Ranch, Ltd. The TCEQ permit # is WQ0014385001.

B. Wastewater Data for Service Area

* Wastewater Plant startup date was February 2008

1. Percent of water service area served by wastewater system: 100 %

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

Year	2008		
January	0		
February	511		
March	333		
April	308		
May	359		
June	308		
July	608		
August	537		
September			
October			
November			

December				
Total	2964			

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 GBRA-Cordillera Ranch (name of water supplier) is located within the Region L (name of regional water planning area or areas) and GBRA-Cordillera Ranch (name of water supplier) has provided a copy of this water conservation plan to the Region L (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.

Appendix B

Rates and Rate Structures

WESTERN CANYON DIVISION (cont.)	2007 Budget	2008 Budget	2009 Budget
Bulverde WDS & Cordillera WDS:			
1. 5/8" Residential Meter			
Water Tap Fee-existing service line/new service line	$450/$1,000	$450/$1,000	$450/$1,000
Water – Monthly Fees	$40.00/min. 2,000 gal.	$40.00/min. 2,000 gal.	$44.00/min. 2,000 gal.
Water – Block Rate	$40.00+$3.60/1,000 over 2,000 gal	$40.00+$3.60/1,000 over 2,000 gal	$44.00+$3.60/1,000 over 2,000 gal
Water – Block Rate	$68.80+$4.60/1,000 over 10,000 gal	$68.80+$4.60/1,000 over 10,000 gal	$72.80+$4.60/1,000 over 10,000 gal
Water – Block Rate	$137.10+$5.60/1,000 over 25,000 gal	$137.80+$5.60/1,000 over 25,000 gal	$141.80+$5.60/1,000 over 25,000 gal
Water – Block Rate	$277.80+6.60/1,000 over 50,000 gal	$277.80+6.60/1,000 over 50,000 gal	$281.80+6.60/1,000 over 50,000 gal
Water – Block Rate	$442.80+8.60/1,000 over 75,000 gal	$442.80+8.60/1,000 over 75,000 gal	$446.80+8.60/1,000 over 75,000 gal
Water – Block Rate	$657.80+$12.00/1,000 over 100,000 gal	$657.80+$12.00/1,000 over 100,000 gal	$661.80+$12.00/1,000 over 100,000 gal
2. 1" Commercial Meter			
Water Tap Fee-existing service line/new service line	$530/$1,300	$530/$1,300	$530/$1,300
Water – Monthly Fees	$100.00/min. 4,000 gal.	$100.00/min. 4,000 gal.	$104.00/min. 4,000 gal.
Water – Block Rate	$100.00+$3.60/1,000 over 4,000 gal	$100.00+$3.60/1,000 over 4,000 gal	$104.00+$3.60/1,000 over 4,000 gal
Water – Block Rate	$121.60+$4.60/1,000 over 10,000 gal	$121.60+$4.60/1,000 over 10,000 gal	$125.60+$4.60/1,000 over 10,000 gal
Water – Block Rate	$190.60+$5.60/1,000 over 25,000 gal	$190.60+$5.60/1,000 over 25,000 gal	$194.60+$5.60/1,000 over 25,000 gal
Water – Block Rate	$221.20+6.60/1,000 over 50,000 gal	$330.60+6.60/1,000 over 50,000 gal	$334.60+6.60/1,000 over 50,000 gal
Water – Block Rate	$386.20+8.60/1,000 over 75,000 gal	$495.60+8.60/1,000 over 75,000 gal	$499.60+8.60/1,000 over 75,000 gal
Water – Block Rate	$601.20+$12.00/1,000 over 100,000 gal	$710.60+$12.00/1,000 over 100,000 gal	$714.60+$12.00/1,000 over 100,000 gal
3. 1.5" Commercial Meter			
Water Tap Fee-existing service line/new service line	$650/$1,900	$650/$1,900	$650/$1,900
Water – Monthly Fees	$200.00/min. 8,000 gal.	$200.00/min. 8,000 gal.	$204.00/min. 8,000 gal.
Water – Block Rate	$200.00+$3.60/1,000 over 8,000 gal	$200.00+$3.60/1,000 over 8,000 gal	$204.00+$3.60/1,000 over 8,000 gal
Water – Block Rate	$214.40+$4.60/1,000 over 12,000 gal	$214.40+$4.60/1,000 over 12,000 gal	$218.40+$4.60/1,000 over 12,000 gal
Water – Block Rate	$274.20+$5.60/1,000 over 25,000 gal	$274.20+$5.60/1,000 over 25,000 gal	$278.20+$5.60/1,000 over 25,000 gal
Water – Block Rate	$414.20+6.60/1,000 over 50,000 gal	$414.20+6.60/1,000 over 50,000 gal	$418.20+6.60/1,000 over 50,000 gal
Water – Block Rate	$579.20+8.60/1,000 over 75,000 gal	$579.20+8.60/1,000 over 75,000 gal	$583.20+8.60/1,000 over 75,000 gal
Water – Block Rate	$794.20+$12.00/1,000 over 100,000 gal	$794.20+$12.00/1,000 over 100,000 gal	$798.20+$12.00/1,000 over 100,000 gal

Rates and Rate Structures

WESTERN CANYON DIVISION (cont.)	2007 Budget	2008 Budget	2009 Budget
4. 2" Commercial Meter			
Water Tap Fee-existing service line/new service line	$1,360/$3,000	$1,360/$3,000	$1,360/$3,000
Water – Monthly Fees	$320.00/min. 16,000 gal.	$320.00/min. 16,000 gal.	$324.00/min. 16,000 gal.
Water – Block Rate	$320.00+$3.60/1,000 over 16,000 gal	$320.00+$3.60/1,000 over 16,000 gal	$324.00+$3.60/1,000 over 16,000 gal
Water – Block Rate	$334.40+$4.60/1,000 over 20,000 gal	$334.40+$4.60/1,000 over 20,000 gal	$338.40+$4.60/1,000 over 20,000 gal
Water – Block Rate	$357.40+$5.60/1,000 over 25,000 gal	$357.40+$5.60/1,000 over 25,000 gal	$361.40+$5.60/1,000 over 25,000 gal
Water – Block Rate	$497.40+6.60/1,000 over 50,000 gal	$497.40+6.60/1,000 over 50,000 gal	$501.40+6.60/1,000 over 50,000 gal
Water – Block Rate	$662.40+8.60/1,000 over 75,000 gal	$662.40+8.60/1,000 over 75,000 gal	$666.40+8.60/1,000 over 75,000 gal
Water – Block Rate	$877.40+$12.00/1,000 over 100,000 gal	$877.40+$12.00/1,000 over 100,000 gal	$881.40+$12.00/1,000 over 100,000 gal
Comal Trace WDS:			
1. 5/8" Residential Meter			
Water – Connection Fees	$495.00	$1,000.00	$1,000.00
Water – Monthly Fees	$32.00/min. 2,000 gal.	$40.00/min. 2,000 gal.	$44.00/min. 2,000 gal.
Water – Block Rate	$32.00+$2.75/1,000 over 2,000 gal	$40.00+$3.60/1,000 over 2,000 gal	$44.00+$3.60/1,000 over 2,000 gal
Water – Block Rate	$54.00+$4.00/1,000 over 10,000 gal	$68.80+$4.60/1,000 over 10,000 gal	$72.80+$4.60/1,000 over 10,000 gal
Water – Block Rate	$114.00+$5.60/1,000 over 25,000 gal	$137.80+$5.60/1,000 over 25,000 gal	$141.80+$5.60/1,000 over 25,000 gal
Water – Block Rate	$254.000+6.60/1,000 over 50,000 gal	$277.80+6.60/1,000 over 50,000 gal	$281.80+6.60/1,000 over 50,000 gal
Water – Block Rate	$419.00+8.60/1,000 over 75,000 gal	$442.80+8.60/1,000 over 75,000 gal	$446.80+8.60/1,000 over 75,000 gal
Water – Block Rate	$634+$12.00/1,000 over 100,000 gal	$657.80+$12.00/1,000 over 100,000 gal	$661.80+$12.00/1,000 over 100,000 gal
Note: Comal Trace WDS rates are effective 1/1/08			
Cordillera WWTP:			
Reconnection Fee: Wastewater	$500.00	$500.00	$500.00
Transfer Fee	$40.00	$40.00	$40.00
Tampering Fee	$70.00+damages	$70.00+damages	$70.00+damages
NSF Fee	$25.00	$25.00	$25.00
Late Charge Penalty	5% of monthly fee	5% of monthly fee	5% of monthly fee
Wastewater – Connection Fees	$3,550/unit	$3,650/unit	$3,750/unit
Wastewater – Monthly Fees	$55.00	$55.00	$60.00

Note: Rate changes and new rates are highlighted.

Appendix C

RESOLUTION ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR THE CORDILLERA RANCH WATER SYSTEM TO PROMOTE RESPONSIBLE USE OF WATER AND TO ESTABLISH CRITERIA FOR THE INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES INCLUDING RESTRICTIONS AND PROVIDING FOR PENALTIES AND/OR SEVERABILITY AND AN EFFECTIVE DATE.

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

WHEREAS, the GBRA recognizes that drought, system failure and other acts of God may occur and that the GBRA cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the GBRA desires to conserve water resources and prepare for drought; and

WHEREAS, the GBRA desires to comply with Section 11.1271 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality which require these plans for all public water supply systems.

NOW THEREFORE BE IT RESOLVED by the Guadalupe-Blanco River Authority Board of Directors that:

Section 1. The Board of Directors does hereby find and declare that sufficient and timely written notice of place and subject matter of this meeting adopting this Resolution was posted. The Board of Directors further ratifies, approves and confirms such written notice and the posting thereof.

Section 2. The Board of Directors adopts the Water Conservation Plan & Drought Contingency Plan for the Cordillera Ranch Water System attached to this resolution. All resolutions that are in conflict with the provisions of this Resolution are hereby repealed.

Section 3. 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.

Section 4. The General Manager or his/her designee is hereby directed to file and maintain a copy of the Water Conservation Plan and Drought Contingency Plan for the Cordillera Ranch Water System and this Resolution in the GBRA files.

Dated this 15th day of October, 2008.

Myrna P. McLeroy
Chair

Attest:

T.L. Walker
Secretary-Treasurer