Real - Edwards Conservation and Reclamation District

Management Plan 2004-2014

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Perry Bushong, President Lee Sweeten, General Manager

Real Edwards

Conservation and Reclamation District

Management Plan

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Real and Edwards County Conservation and Reclamation Water District

Management Plan

Mission Statement

The District was created to provide for the conservation, preservation, protection, recharge and prevention of waste of the underground water reservoirs located under the District consistent with Article XVI, Section 59, of the Texas Constitution and Chapter 36 of the Texas Water Code. The District will develop, promote, and implement management strategies to provide for the conservation, preservation, protection, recharging, and prevention of waste of the groundwater resources, over which it has jurisdictional authority, for the benefit of the people that the District serves.

Guiding Principals

The District has been operated from its inception, with a strong belief in private property rights and that when some of those rights relating to the management of groundwater are relinquished for the benefit of the community, local control through an elected Board of Directors (the District) is the preferable way of management of those rights.

The District has adopted the principle of "education first" and regulation as a last resort in their effort to encourage conservation of the resource. As a result, the rules of the District are designed to give landowners a fair and equal opportunity to use the groundwater resource underlying their property for beneficial purposes. If, at the request of the constituents of the District, more stringent management strategies are needed to better manage the resource, these strategies will be put in place after an educational process and with the perceived majority approval of the constituents. The District will continue to monitor groundwater quality and quantity in order to better understand the dynamics of the aquifer systems over which it has jurisdiction. This management document is intended to be used as a tool to provide continuity in the management of the District. It will be used by the District staff as a guide to insure

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that all aspects of the goals of the District are carried out. It will be referred to by the Board of Directors for future planning, as well as a document to measure the performance of the staff on an annual basis

Conditions can change over time which may cause the Board of Directors to modify this document. The dynamic nature of this plan shall be maintained such that the District will continue to best serve the needs of the constituents. At the very least, the Board of Directors will review and readopt this plan every five years.

The goals, management objectives, and performance standards put forth in this planning document have been set at a reasonable level considering existing and future fiscal and technical resources. Conditions may change which could cause change in the management objectives defined to reach the stated goals. Whatever the future holds, the following guidelines will be used to insure that the management objectives are set at a sufficient level to be realistic and effective:

- The District's constituency will determine if the District's goals are set at a level that is both meaningful and attainable; through their voting right, the public will appraise the District's overall performance in the process of electing or reelecting Board of Directors members.
- The duly elected Board of Directors will guide and direct the District staff and will gauge the achievement of the goals set forth in this document.
- The interests and needs of the District's constituency shall control the direction of the management of the District.
- The Board of Directors will endeavor to maintain local control of the privately owned resource over which the District has jurisdictional authority.
- The District budget operates on an October 1st through September 30th fiscal year.
- The Board of Directors will evaluate District activities based upon the fiscal year. When considering stated goals, management objectives, and performance standards, any reference to the terms annual, annually, or yearly will refer to the fiscal year from October 1st through September 30th.

The Real Edwards Conservation and Reclamation District was created by House Bill 447 in the 56th Texas Legislature in 1959. Initially the District included parts of Edwards and Real County. However in the early 1990's, the District's enabling legislation was amended to include all of Edwards and Real Counties. The District is funded through fees and a \$0.02 per one hundred dollars valuation on property within the District.

Planning Period

This plan becomes effective upon review and approval by the Texas Water Development Board and remains in effect until a revised plan is approved or ten (10) years from the date of certification as administratively complete, whichever is later. The plan may be reviewed annually. However, the plan must be reviewed by the Board of Directors of Directors, readopted with or without revisions, and be resubmitted to the TWDB for approval at least once every five years to insure that it is consistent with the applicable Regional Water Plans and the State Water Plan.

As outlined in Chapter 36.1071, Texas Water Code, the Management Plan is required, as applicable, to address the following management goals:

- Providing the most efficient use of groundwater
- Controlling and preventing waste of groundwater
- Controlling and preventing subsidence
- Addressing conjunctive surface water management issues
- Addressing natural resource issues
- Addressing drought conditions,
- Addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost effective, and
- Addressing in a quantitative manner the desired future conditions of the groundwater resources.

The following goals referenced in Chapter 36, Texas Water Code, have been determined not applicable to the District;

§ 36.1071(a)(3) Controlling and preventing subsidence
§ 36.1071(a)(7) Addressing recharge enhancement
§ 36.1071(a)(7) Addressing precipitation enhancement

General Description

The District is governed by nine Directors who are elected by local voters and serve a two-year staggered term of office. District rules have been in effect since January 2002 which will effect the management plan. The District encompasses the total of Real and Edwards County, which is located in the southwestern part of Texas with Leakey and Rocksprings, Texas as the county seats. Real and Edwards Counties economy is primarily based on agriculture, tourism and hunting industries. Edwards and Real Counties sit on the southwestern edge of the "Texas Hill Country" The rugged terrain with it winding roads, the magnificent vistas, and the crystal clear springs, streams, and rivers along with some of the best hunting in Texas; have made the area a favorite for vacationers and absentee landowners alike. Hundreds of springs in the two counties make up the headwaters to the Frio, the South Llano, the Nueces and the West Nueces Rivers.

Geographical Information

The District lies within the Edwards Plateau and consists of approximately 1,810,169 acres in Real and Edwards Counties. The land is generally rolling to mountainous with elevations from 1500 to 4000 ft. The District is included in three different river basins, the Nueces, Colorado, and the Rio Grande. The Headwaters of the Nueces, and Frio Rivers along with a portion of the Headwaters of the Sabinal and South Llano Rivers are located within the District. The western half of Edwards County slopes southwestward into the Devils River. The eastern part of Edwards County drains into the Nueces River, the western part drains into the Devil's River, and the northern part drains into the Llano River. Real County drains into the South Llano River. The land also includes shallow depressions that catch rainfall and runoff to be

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either evaporated or infiltrated into the soil.

Groundwater Resources

Aquifers within Edwards and Real Counties have been divided by the Texas Water Development Board (TWDB) into two types, namely, major and minor aquifers. The TWDB has classified one major aquifer within the District: the Edwards Trinity Aquifer. The District along with the Region J Planning group has identified one minor aquifer in Real County; the Frio River Alluvial Aquifer. This minor aquifer has been included in the last two Region J Management Plans that have been approved by the TWDB. In addition to these aquifers, alluvial deposits extend outward along the Nueces, Frio and South Llano river basins. There are numerous wells completed in the Frio River Alluvial Aquifer and/or livestock use and are small wells, others are used for irrigation and municipal uses. The City of Leakey's well field is completed in the Frio River Alluvial Aquifer and the Barksdale Water Supply Corporation's wells are completed in alluvium deposits approximately one-half mile from the Nueces River near the community of Barksdale.

The Edwards-Trinity (Plateau) Aquifer

Limestone is the predominant rock underlying the Edwards Plateau soils. The permeability of the limestone is not necessarily due to intergranular pore space as in sandstone, but more to joints, crevices, and solution openings that have been enlarged by solvent action of water charged with carbon dioxide. The Edwards Formation is a granular to crystalline, dolomitic limestone called brown lime or brown sand on local well driller's logs. Caverns or caves and smaller solution channels are common in the Edwards. The Edwards Trinity Plateau Aquifer covers approximately thirty-one (31) counties or the boundary of GMA 7. Edwards and Real Counties sit on the South Eastern Border of this aquifer. According to the most recent data from the Plateau Region Planning Group Plan (accepted as part of the TWDB 2007 State Water Plan) there are approximately 14,436 acre feet of water per year available to the District from this aquifer. Table ¹⁰ As state above, the permeability of the formation is due to joints, crevices, and small caves that are in the limestone. This means that a well's pumping capacity may vary from as little as one (1) gallon per minute (gpm) to

several hundred gpm in a few limited places. For the most part wells completed in this formation within Edwards and Real County consistently yield between 6 and 10 gpm. The Trinity aquifer is composed of marine sediments (primarily limestone) deposited during the Cretaceous Period. The Trinity Group in the Edwards and Real Counties includes the Glen Rose and underlying Travis Peak formations. In some areas, the Glen Rose consists of up to approximately 1,000 feet of limestone with interbedded shale, marl and occasional anhydrite (gypsum) and is the primary unit in the Trinity in the southern part of the Edwards Plateau area. Springs issuing from the aquifer form the headwaters of several flowing rivers. The Travis Peak contains sands, clays and limestones and is subdivided into water-bearing members of the Hensell, Cow Creek, Sligo and Hosston. More than one-third of the samples from the Trinity aquifer have TDS concentrations above the secondary standard of slightly saline (1,000 - 3,000 mg/l). *Plateau Region Water Plan*

Wells completed within the Trinity units in some areas of the District (primarily in Real County) tend to yield substantially more water (50 -150+ GPM). However, as noted above often the high TDS and sulfide content requires water from this formation undergo fairly extensive treatment prior to becoming potable. In some areas of Edwards County these units produce limited amounts of water.

The Frio River Alluvial Aquifer

The Frio River Alluvial Aquifer in central Real County extends over an area of approximately 1,120 acres The alluvium (clay, silt, gravel, etc. deposited by running water) generally follows the flood plain of the Frio River in Real County. The aquifer's width varies from approximately from almost nonexistent to over a mile . As with the width, the aquifer's thickness varies but is thought to not exceed 60 feet. Wells in the Frio River Alluvial aquifer are generally shallow and provide water in small quantities for rural domestic and livestock purposes within Real County. However as mentioned above, there are several large capacity wells completed in this zone and the City of Leakey's well field is completed in this aquifer. Because of the limited extent of this aquifer and its shallow water table, the aquifer system is potentially susceptible to contamination from surface sources. Recharge to the aquifer is from stream loss and direct infiltration of precipitation. Estimates indicate there is approximately 2,800 acre feet available per year within this aquifer. ^{Plateau Region Planning Group 2006}

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The District is currently working with LBG-Guyton Associates to obtain a more current and accurate estimate of the boundaries and available water within the Frio River Alluvial Aquifer.

Alluvium

Alluvial deposits of Pleistocene and Recent age occur along nearly all the stream courses on the Edwards Plateau. These deposits consist of sand, gravel, silt and clay derived from the erosion of the underlying rocks, and occur primarily as terrace and flood plain alluvium. As with the defined Frio River Alluvial Aquifer, the alluvium deposits along the flood plains of the Nueces, West Nueces and South Llano Rivers vary in width and thickness. The thickness is thought not to exceed 60 feet. There appears to be some hydraulic connection between the alluvial formations and the rivers and streams that meander through them. For the most part wells in the alluvium with the District are generally shallow and provide water in small quantities for rural domestic and livestock purposes within Edwards and Real County. The Barksdale Water Supply Corporation (serving the community of Barksdale) has it well field completed within the alluvium approximately one-half mile from the Nueces River. Because these wells are often shallow, many have gone dry during droughts. Due to the limited extent of these deposits and their shallow water table, the Alluvium is potentially susceptible to contamination from surface sources. Recharge to the alluvium is from stream loss and direct infiltration of precipitation. The District is currently working with LBG-Guyton to determine boundaries and water availability within the alluvium deposits and to define one or more minor aquifer(s) in addition to the Frio River Alluvial Aguifer within those boundaries.

Groundwater Resource Estimates

All estimates of groundwater availability, usage, supplies, recharge, storage and future demands are from data supplied by the Texas Water Development Board unless otherwise noted. Tables 1 thru 5 herein are taken from the TWDB GAM Run 8-86, January 5th, 2009. GAM estimates are just that; an estimate and are only as good as the data used to supply the model. While the District is required to use these estimates, it is hoped that the TWDB will continue to improve the models and the data use therein. The District has for years contended that the methodology used by the TWDB to project current and future water use is flawed in that it fails to consider

factors such including but not limited to; absentee landowners, vacationers, hunting and hunters, wildlife management and exotic game.

Natural and/or Artificial Recharge

Recharge is the addition of water to an aquifer. The principal source of ground-water recharge in Edwards and Real Counties is precipitation that falls on the outcrop of the various aquifers. In addition, seepage from streams located on the outcrop and possibly inter-formation leakage are sources of ground-water recharge. Recharge is a limiting factor in the amount of water that can be developed from an aquifer, as it must balance discharge over a long period of time or the water in storage in the aguifer will eventually be depleted. Among the factors that influence the amount of recharge received by an aquifer are: the amount and frequency of precipitation; the areal extent of the outcrop of intake area; topography, type and amount of vegetation, and the condition of soil cover in the outcrop area; and the ability of the aquifer to accept recharge and transmit it to areas of discharge. On aguifer outcrops where vegetation is dense, the removal of underbrush and non-beneficial plants will reduce evaporation and transpiration losses, making more water available for ground-water recharge. According to estimates from the TWDB GAM Run 8-86, January 5th, 2009, the District receives approximately 99,019 acre feet of recharge annually from precipitation. Table 1

In the Edwards Plateau region, the annual rate of evaporation is three times greater than the annual rate of precipitation, thus creating perpetual low soil moisture content that retards percolation except under the most ideal conditions. Percolation usually occurs during relative short periods after rainfall. Soil permeability is an expression of the ability of water to pass through pore spaces of the soil and varies throughout the Edwards Plateau from less than 0.06 to 0.63 inches per hour. Rain intensities greater than these will produce surface runoff. The information presented in this paragraph is derived from a 1979 report by Lloyd Walker titled "Occurrence, Availability, and Chemical Quality of Ground Water in the Edwards Plateau Region of Texas, Report 235, Texas Department of Water Resources,"

Additional Recharge

The estimate of the annual amount of additional natural or artificial recharge of groundwater within the District that could result from implementation of feasible

methods for increasing the natural or artificial recharge is difficult to determine due to the direct correlation to rainfall. There are several feasible methods of additional recharge:

- <u>Flood Prevention Sites</u>- Along the headwaters of the Frio and Nueces River there are numerous privately owned dams that catch and retain water. On the Nueces, there is a public dam along the Uvalde and Real County line. There are a few privately owned dams on the Llano River as well. Construction of small dams to slow down run off may be beneficial to the recharge of the aquifers within the District.
- 2. <u>Weather Modification</u>- Weather Modification is another tool considered effective for increased aquifer recharge. Real and Edwards County is part of the Edwards Aquifer Precipitation Enhancement Program, as of April 1999. The average rainfall for the District is 24 inches per year. A modest 10% increase of one inch of rainfall during the growing season results in a reduction of pumpage for all users, potential increase in runoff; increases productivity of crops and rangeland, provides additional moisture infiltration below root depth available for recharge and increases spring flow.
- 3, <u>Range Management Through Brush Control</u>- Real and Edwards Counties have a coverage of approximately *65%* Ash Juniper or cedar. ² ^{Natural Resource Conservation Service, Edwards ^{County, 1999} Brush control can be accomplished by mechanical control, prescribed burning, combination of mechanical and burn, or chemical application. Brush control may be considered more as a conservation method than an additional recharge method. Recent studies indicate in certain instances and over certain terrain and with proper techniques, brush control may enhance recharge as well as serve as a water conservation measure. ^{Redecker et al. (1998)}}

Natural and Artificial Discharge

Discharge is the loss of water from an aquifer. The discharge may be either artificial or natural. Artificial discharge takes place from flowing and pumped water wells, drainage ditches, gravel pits, and other excavations that intersect the water table. Natural discharge occurs as seepage, springs, evaporation, transpiration, and inter-formational leakage. Ground water moves from the areas of recharge to areas of discharge or from points of higher hydraulic head to points of lower hydraulic head. Movement is in the direction of the hydraulic gradient just as in the case of surface water flow. Under normal artesian conditions movement of ground water usually is in the direction of the aquifer's regional dip. Under water-table conditions, the slope of the water table and consequently the direction of ground-water movement usually is closely related to the slope of the land surface. However, for both artesian and watertable conditions, local anomalies are developed in areas of pumping and some water moves toward the point of artificial discharge. The rate of ground-water movement in an aquifer is usually very slow, being in the magnitude of a few feet to a few hundred feet per year. While it appears that substantial recharge occurs via precipitation, approximately 61,029 acre feet of water per year is discharged from the aquifer to springs, streams and rivers within the District. Table 2

As mentioned, artificial discharge is considered the amount of water from flowing and pumped water wells, drainage ditches, gravel pits, and other excavations that intersect the water table. According to the TWDB, the projected total water demand in 2010 is estimated to be 2,338 acre feet. ^{Table 6} However the District feels that this number is incorrect (explained in section on projected water use) and has projected that the current amount is closer to 2,578 acre feet. ^{Table 8A & 8B}

In planning for future use and availability, it is necessary to look at the amount of water coming into the District from each aquifer. The TWDB estimates that there is a total of 26,010 acre feet per year flowing into the District. This estimate is made from the TWDB GAM Run 08-86, January 5th, 2009. ^{Table 3}

Likewise it is equally important to know how much water is leaving the District and how much flow there is between the different aquifers. The section above addressed the issue relating to discharges to springs, streams and rivers. However if there is water entering into the District through the aquifers there is also water leaving the District via the aquifers. Again, according to the Texas Water Development Board, there is 80,713 acre feet flowing out of the District annually. ^{Table 4} There also appears to be a limited amount of flow between the Edwards formation and the Trinity units. This amounts to about 5,310 acre feet per year. ^{Table 5}

Surface Water Resources and Availability

Surface water sources within the District include the Nueces River, the Frio River, the Llano River along with numerous small streams and hundreds of springs. Major springs include; Seven Hundred Springs, Evans Springs and Old Faithful Springs. The City of Camp Wood, in Real County, uses Old Faithful Springs as it sole source of municipal water. While even during the Drought of Record during the 1950's Old Faithful Spring still flowed at a rate that was adequate for the City of Camp Wood's municipal use, it is likely that during another such drought the flow would be inadequate. This is due to the increase in local pumping in the alluvial formations and the increase in demand by the City of Camp Wood. According to projections, the City of Camp Wood may be short as much as 172 acre feet of water per year thru 2060. Table 9 Knowing this, the District asked the Plateau Planning Group to include a strategy relating to the City of Camp Wood drilling one or more wells to supplement community's water supply. Surface water from the Frio, Nueces and South Llano Rivers contribute 2,211 acre feet per year. Tables 10 & 11 However, this cannot be considered available as surface water does not fall under the jurisdiction of the District. Flow data on most of the springs is sparse. For over a year the District has been monitoring the flow of the Nueces and Frio Rivers in an effort to gather data to be used to set future conditions as well as used for specific drought triggers when combined with other data. Currently the District is working to put a weir on Old Faithful Springs to allow for more accurate measurements. The flow of Old Faithful Springs and Evans Springs will be major components in the establishment and monitoring of Desired Future Conditions for the District. As mentioned above the aquifers Discharge approximately 61,029 acre ft of water per year to the numerous springs, streams and rivers within the District. Table 2

Current and Projected Use

According to data provided by the Plateau Region Planning Group, the use for the District in the year 2000 was 2,348 acre feet and the projected demand in 2010 will be 2,338 acre feet. ^{Table 6} Further estimates from the Plateau Region Planning Group indicate a decline in water use in the District thru the year 2060. These figures are based primarily upon population thru census and livestock use. The figures do not take into consideration the large number of absentee landowners in the District (approximately 65-70%). Nor do the figures consider the rapid change from normal livestock to Game Management and Exotic Game ranches. Other factors not considered in these estimates are the over abundance of wild game such as hog, axis deer, black buck antelope, mouflon and aoudad. Nor do these figures take the large amount of tourism and summer homes into consideration. Water use estimates from the Texas Water Development Board indicate a lower demand from 2000 - 2004. Table TA&7B

The District estimates for water use are substantially higher and are based upon the number and type of wells in the Districts Data base files. District water use projections for domestic wells are based upon the assumption that average domestic well owner will use approximately the same amount of water as the average family on a public water supply system connection in the same area. Using this assumption, the District surveyed all of the public water supply systems within Edwards and Real County and noted that between September 2007 and August 2008 (a very dry period with high water use) the average connection used approximately 259 gallons per day or about 0.29 acre feet per year. Taking this average and projecting it to the Domestic wells currently in our data base shows approximately 411.38 acre feet per year. We estimate there are still at least 1,000 domestic wells within the District that have not been registered at this time or another 290 acre feet per year for a total domestic well use estimate of 701.38. Combined with the other uses the District estimate for 2008 is 2,578 acre feet per year. Table 8A & 8B As more wells are drilled and more wells are identified to be registered the projections will increase. Our records show a total of 850 new wells being drilled since January 2002. As more parcels of land are being subdivided or converted from normal ranching to game management operations, there is the ever increasing demand for additional wells.

It should be noted that there are areas where agricultural activity is sustained on wells producing as little as 1 gallon per minute which limits proper grazing distribution and other agricultural enterprises. Although most of the District has available groundwater, the quantity of groundwater within certain areas dictates surface activities or the limitations thereof. As mentioned in this document, the Desired Future Conditions (DFC's) has not been established for the District. Nor has the number to be used for the Managed Available Water (MAG). The District is working with Groundwater Management Area 7 (GMA 7) to establish the MAG and set the DFC's. The District has engaged the services of LBG- Guyton to assist in the development of the DFC's for Edwards and Real County. Until the MAG can be established the District will use the figures from the Plateau Region Planning Group as accepted by the TWDB and included in the 2007 State Water Plan. Once the DFC's and the MAG has been established for the District, this plan will be amended to reflect that data and the management required to work towards the DFC's.

Projected Water Supply

According to data from the latest Region J (Plateau Planning Group) plan, there are approximately 17,724 acre feet of water available for District use. ^{Table 10} However since a part of this water is surface water and for the most part is permitted by TCEQ and not under District control, that number should be lowered to 15,513 acre feet pr year.

Management of Groundwater Supplies

The District will work with other agencies and entities including but not limited to the Texas Water Development Board, The Plateau Region (Region 7) Planning Group and the Groundwater Management Area 7 (GMA) to establish and monitor the Managed Available Groundwater within the District. On an Annual basis, the District will make an assessment of water supply and groundwater storage conditions and will report those conditions to the Board of Directors and to the public.

The District has and will continue to manage the supply of groundwater within the District, in order to conserve the resource while seeking to maintain the economic viability of all resource user groups, public and private. In consideration of the economic and cultural activities occurring within the District, the District will continue to identify and engage in such activities and practices, that if implemented, would result in preservation and protection of the groundwater. The District has, or will amend as necessary, rules to regulate groundwater withdrawals by means of spacing and/or production limits. Current District rules may be found on the District website at <u>www.recrd.org</u>

The relevant factors to be considered in making the determination to grant a permit or limit groundwater withdrawal will include:

- 1. The purpose of the District and its rules;
- 2. The equitable conservation and preservation of the resource; and
- 3. The economic hardship resulting from granting or denying a permit or the terms prescribed by the rules.
- 4. The managed available groundwater for use in the District
- 5. The Aquifer in which the water is contained

In pursuit of the District's mission of protecting the resource, the District may require reduction of groundwater withdrawals to amounts, which will not cause harm to the aquifer. To achieve this purpose, the District may, at the Board of Directors' discretion amend or revoke any permits after notice and hearing. The determination to seek the amendment or revocation of a permit by the District will be based on aquifer conditions observed by the District. The District will enforce the terms and conditions of permits and the rules of the District by enjoining the permit holder in a court of competent jurisdiction as provided for in TWC '36.102.

A Drought contingency plan to cope with the effects of water supply deficits due to climatic or other conditions has been developed by the District and was adopted by the Board of Directors after notice and hearing. This plan is in the review process and will likely have numerous changes made. In developing the new contingency plan, the District will consider the economic effect of conservation measures upon all water resource user groups, the local implications of the degree and effect of changes in water storage conditions, the unique hydrogeologic conditions of the aquifers within the District and the appropriate conditions under which to implement the contingency plan.

Actions, Procedures, Performance and Avoidance for Plan Implementation

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guidepost for determining the direction or priority for all District activities. All operations of the District, all agreements entered into by the District, and any additional planning efforts in which the District may participate will be consistent with the provisions of this plan. The District has adopted and will amend, as necessary, rules relating to the implementation of this plan. The rules adopted by the District shall be pursuant to TWC Chapter 36 and the provisions of this plan. All rules will be adhered to and enforced. The promulgation and enforcement of the rules will be based on the best technical evidence available. The District shall treat all citizens with equality. Citizens may apply to the District for variance in enforcement of the rules on grounds of adverse economic effect or unique local characteristics. In granting of discretion to any rule, the Board of Directors shall consider the potential for adverse effect on adjacent owners and aquifer conditions. The exercise of said discretion by the Board of Directors shall not be construed as limiting the power of the Board of Directors.

Methodology the District will use to track progress in achieving Management Goals

Prior to the first quarterly Board of Directors meeting of the fiscal year, the District manager will prepare an annual report on District performance in achieving the management goals for the preceding year. This report will be presented to the Board of Directors of Directors during the first quarterly Board of Directors meeting each fiscal year, beginning January 2010. The report will include the number of instances in which each of the activities specified in the Districts management objectives was engaged in during the fiscal year. The Board of Directors will maintain the report on file, for public inspection at the Districts offices upon adoption. This methodology will apply to all management goals contained within this plan.

Desired Future Conditions (DFC's) of the Aquifers

The Desired Future Conditions for the aquifers located within the District boundaries and within Groundwater Management Area 7 have not been established; therefore, an estimate of the managed available groundwater is not available at this time. The District is actively working with the other member districts within Groundwater Management Area 7 towards determining the desired future conditions for each aquifer located within the district. As previously mentioned, the District has employed the services of LBG-Guyton to assist in this process. Once these are established an estimate of the managed available groundwater will be determined. The District will amend the management plan at that time.

District Goals, Objectives and Performance Standards

Goal 1 – Management Strategies to Protect and Enhance the Quantity of Useable Groundwater by Encouraging the Most Efficient Use

The District will manage the supply of groundwater within the District based on the District's assessment of water supply and groundwater storage conditions. The District will monitor groundwater conditions through water level monitoring programs and will continue to maintain and update the District's database, which was begun in 2003 and currently contains over 2,000 records of wells and permits. Computer modeling projects may be utilized in the future which could also aid in the decision making process by this District in the management of groundwater.

The District has or will adopt and/or amend rules to regulate groundwater withdrawals by means of spacing and production limits. In addition the District may choose to identify areas within the District which, based on its monitoring programs are potential groundwater depletion or drought sensitive areas. These areas when identified may require specific District rules to ensure that groundwater supply is maintained and protected.

The District will continue to work with the Region J (Plateau) Planning Group, GMA 7, TWDB and other appropriate agencies to develop a more detailed view on the aquifers within the District.

Management Objective 1.1: Registration of Wells

The District will review all new well applications and will conduct site visits prior to any new well construction. The District will encourage the registration of existing well through news articles and other means

Performance Standards

1.1 (a): Within five days of the receipt of an application for a new well, staff will review the application and contact the applicant to arrange for a site visit 95% of the time.1.1 (b): Staff will conduct an onsite inspection of the well location prior to any new construction 100% of the time

1.1 (c): Data will be entered into the District's computer system and a well number will be issued within five days of the receipt of the well log/report from the Driller 95% of the time.

1.1 (d): Staff will furnish a report to the Board of Directors on the number of wells currently listed in the District's computer system on a quarterly basis. The report will 18

include at minimum; the total number in the data base, the completed number and the number pending well files

1.1(e) at least 2 times per year, the District will publish an article on the need to register existing wells.

Management Objective 1.2: Operating Permits, Transport Permits, and other permits

The District will review and act upon all requests for all permits as outlined in the District's Rules.

Performance Standards

1.2 (a): The District will follow procedures as outlined in District rules for permitting 100% of the time.

1.2 (b): On a quarterly basis staff will furnish the Board of Directors with the number of active permits and the number of permits applied for but yet pending.

Management Objective 1.3: Improve/Enhance the District's Water Level Monitoring Program

The District will improve its water level monitoring network by first, identifying additional wells to be monitored, and secondly, by annually measuring the depth to water in those wells; record all measurements and/or observations; enter all measurements into District's computer data base; file specific locations of wells in the District's filing system. Establish a baseline by using existing wells, preferably those for which the District already has some historical data, in all major and minor aquifers where wells are available.

Performance Standards

1.3 (a). Annually report to the Board of Directors on:

- the percent of water level monitoring wells for which measurements were recorded each year.
- the number of data records entered into District's data base each year.
- the number of wells in the water level measurement network each year.
- the number of wells added to the network, if required, each year.

Goal 2 - Management Strategies to Protect and Enhance the Quantity and Quality of Useable Groundwater by Controlling and Preventing Contamination and Waste

Management Objective 2.1: Water Quality Monitoring Program

On an annual basis, the District will, in conjunction with the Texas A&M Agri-Life Service Agents in Edwards and Real Counties, conduct a water sampling/screening program that will allow well owners to have their well water tested for; TDS, Bacteria, and Nitrates. The results will be made available to the well owners and to the public.

Performance Standards

2.1.a. Annually report to the Board of Directors on:

- the total number of samples collected and analyzed each year,
- the number of wells testing positive for coliform bacteria,
- the number of letters sent to well owners, and
- the number of news article relating to the well sampling

Management Objective 2.2: Assure Proper Closing, or Re-Equipping of Wells

The District staff will inspect 100 percent of sites reported as being open or improperly covered in a timely manner and follow through to assure proper closing or repair.

Performance Standards

2.2.a. Annually report to the Board of Directors on:

- the number of open, improperly covered, or deteriorated wells reported and inspected each year and the outcome of each incident.
- the number of letters of notification of an open hole or deteriorated well mailed to well owners and/or operators each year.

• the number of wells the District required to be closed each year.

Management Objective 2.3: Encourage Plugging of Abandoned Wells

District staff will field inspect each reported well abandoned and assure either proper closing under Water Well Drillers' Rules or that the well is re-equipped in accordance with District rules.

Performance Standards

2.3.a. Annually report to the Board of Directors on:

- the number of reported wells abandoned or replaced each year.
- the number of reported wells re-equipped or plugged in accordance with the District's rules each year.

Management Objective 2.4: Control and Prevention of Water Waste

2.4.1: The District will investigate 100 percent of identified wasteful practices within a reasonable number of working days of identification or complaint received, depending upon the magnitude of the wasteful practice.

2.4.2: The District will publish at least three (3) articles per year via the local newspapers regarding the prevention of waste.

Performance Standards

2.4.1 (a): Annually report to the Board of Directors on:

- the number of wasteful practices identified and the average number of days District personnel took to respond or investigate after identification or complaint received.
- the actions taken to resolve the identification or complaint received.
- 2.4.2 (a): Annually report on the number of news articles published

Goal 3 – Management Strategies Under Drought Conditions

Management Objective 3.1: Curtailment of Groundwater Withdrawal

The annual amount of groundwater permitted by the District for withdrawal from the portion of the aquifers located within the District may be curtailed during

periods of extreme drought in the recharge zones of the aquifers or because of other conditions that cause significant declines in groundwater surface elevations. Such curtailment may be triggered by the District's Board of Directors based on the groundwater elevation measured in the District's monitoring well(s) and/or stream flow measurements along with other indices such as rainfall and soil moisture. District staff currently monitor three locations along the Frio River and its tributaries and two locations on the Nueces River. A weir box will be placed on Old Faithful Spring and measurements will be routinely taken at that location.

Performance Standards

3.1 (a): At least bi-monthly District Staff will conduct flow measurements of the Frio and Nueces Rivers. The information will be published on the District's webpage for public viewing.

3.1 (b): Within five working days of a District declaration of drought stages, all permit holders will be notified of the need to curtail production,

3.1 (c): Within five working days of a District declaration of drought stages, staff will submit an article to the local papers. Said article will describe the drought stage and the conditions and request that the public initiate conservation measures

3.1. (d): The District will annually review its drought contingency plan to see what if any changes need to be made

3.1. (e): District staff will report quarterly to the Board of Directors on local drought conditions. Such reports may be oral or written and presented at Board of Directors Meetings

Goal 4 – Promote Water Conservation

Management Objective 4.1: Emphasize Water Conservation through Public Education

The District will develop and sponsor a water conservation education curriculum, available upon request for all schools within the District. The District will utilize the methodologies listed under Goal 5 in order to raise public awareness of the necessity and importance of a water conservation program.

Performance Standards

4.1(a): Annually report to the Board of Directors on:

- the number of schools where water conservation education curriculums are presented each year.
- the number of water conservation articles presented to the public via the various methodologies outlined in Goal 5.

4.1(b). Promote rainwater harvesting, Xeriscaping and brush control where appropriate and cost-effective. Promotion of these projects may be accomplished through news articles and/or the District's webpage at least two (2) times per year.

Goal 5 – Implementation of Public Relations and Public Awareness Program

Management Objective 5.1: Produce and Disseminate Information relating to the District and its Goals and Objectives

The District will publish at least four (4) articles annually that will outline the Districts goals and objectives and discuss methods to enhance and protect the quantity and/or quality of groundwater within the District. The District will furnish book covers to the schools within the District on an as need basis. These covers will reflect water related topics such as waste, contamination and conservation.

Performance Standards

- 5.1 (a): Annually document number of news articles published.
- 5.1 (b): Annually document the number of schools and number of book covers

Management Objective 5.2: Update District Webpage with informative links that relate to conservation, waste prevention and enhancement of groundwater. The District web page is a direct link to a large number of individuals who reside or own property within the District. Links on the District webpage will be reviewed at least four (4) times per year to insure they are current and that the linked information reflects the management objective.

Performance Standards

5.2 (a): Annually document the number of times the District webpage was reviewed and/or updated.

Management Objective 5.3: Provide Classroom Presentations

Upon request by instructors, District staff or Board members will assist in area classrooms in presenting information regarding groundwater quality, quantity, conservation and/or waste prevention to public school students.

Performance Standards

5.3 (a): Annually document the number of classroom presentations made or classroom and audio-visual materials provided.

5.3 (b): Annually document the names of participating schools and any feedback from students/teachers.

Goal 6: Addressing Brush and Invasive plant control

The District is supportive of activities related to brush and invasive plant control as it relates to the recharge of the aquifers.

Management Objective 6.1

The District will promote brush and invasive plant control through newspaper articles and through links on the District's webpage.

Performance Standards

6.1 (a) The control of brush and/or other invasive plants will be included in at least 2 news articles per year.

6.1. (b): On at least a quarterly basis the District web page will be reviewed to insure that links to information on brush control are current.

Goal 7: Addressing Rainwater Harvesting

The District believes that the harvesting of rainwater is a viable way to both conserve groundwater and to supplement domestic supply in areas within the District where groundwater is in sparse supply.

Management Objective 7.1:

The District will promote rainwater harvesting through news articles and through the District's website.

Performance Standards:

7.1(a): Information regarding rainwater harvesting will be included in at least two (2) news articles per year.

7.1 (b): On at least a quarterly basis the District web page will be reviewed to insure that links to information rainwater harvesting are current.

Goal 8: Desired Future Conditions of the Aquifers (DFC's)

The District actively participates in developing the desired future conditions for the aquifers within the District's boundaries and within the boundaries of Groundwater Management Area 7. The desired future conditions for the aquifers within GMA 7 have not yet been established. Consequently, there are no Managed Available Groundwater estimates available to include in this Management Plan at this time. Therefore, this goal is not applicable to the District at this time. Once the desired future conditions are established, an estimate of the managed available groundwater (MAG) will be determined. The District will amend the management plan at that time to insure action that will achieve the DFC's. Goal 9: Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater and Which Are Impacted by the Use of Groundwater

The District has concerns regarding the potential oil contamination of wells in Southwestern Edwards County. In this area of the District, there is an old shallow oil field. Numerous wells in this field have been abandoned and have not been properly sealed. During the last round of planning, the District requested that a Strategy be included in the Region J Plan to address this issue. It should be pointed out that the requested Strategy was not funded by the TWDB and that the District does not have the resources to complete the tasks outlined in that strategy. The District is also concerned about "Pits" used in the drilling for Oil and Gas. Many of these pits are unlined or if lined, are improperly closed and are located in/or near areas where contamination may migrate to the water table.

Management Objective 9.1: The District will investigate any reported contamination and work with the Railroad Commission, the Texas Commission on Environmental Quality and/or other entities/agencies to insure that any contamination is minimized or eliminated.

Performance Standards:

9.1 (a): Investigate any report of potential contamination within five (5) working days.9.1 (b): Annually report the number of potential contamination incidents and the location of such incidents to the Board of Directors

Management Objective 9.2: During the next round of Regional Planning, the District will again work to have include Strategies relating to the investigation and/or impact of the contamination of wells in Southwestern Edwards County and the potential contamination of aquifers due to unlined pits and/or improperly closed lined pits included in the Plateau Planning Group Management Plan

Performance Standards:

9.2 (a) Annually report to the Board of Directors on the progress and/or the success thereof of the objective.

Goal 10: Addressing Conjunctive Surface Water Management Issues

Except as provided in Chapter 36 of the Texas Water Code, the District has no jurisdiction over surface water. The District shall consider the effects of surface water resources as required by Section 36.113 and other state law. However, the Headwaters to the Nueces, Frio and to some extent the South Llano Rivers initiate in the District and the District is well aware of the ecological and economic impact of these rivers. The Nueces River Authority is the predominant agency in dealing with the Nueces River and Frio Rivers and the District works with that entity in promoting water conservation and prevention of waste and contamination of ground and surface water. Currently one member of the District Staff serves on the Nueces Bay and Estuary Advisory Council. The District also promotes the Clean Rivers Program initiated by the Nueces River Authority.

A newly formed Stake Holders Group has been started to address the concerns along the Llano River and the District has been and will continue to be active with that group.

Management Objective 10.1: The District will work in conjunction with the Nueces River Authority and other stakeholders groups to promote the Clean Rivers Program and will include information about that program in at least two (2) new articles per year

Performance Standards:

10.1 (a): Annually report the number of programs, meetings etc. participated in.10.1 (b): Annually report the number of articles relating to the Clean Rivers program

Management Objective 10.2: The District will include information regarding the need to prevent contamination of the springs, streams and or rivers within the District in at least two (2) news articles per year.

Performance Standards:

10.2 (a): Annually report the number of news articles relating to contamination

Management Objective 10.3: Upon request and in conjunction with the Nueces River Authority, the District will conduct school and/or public presentations relating to the impact of contamination on the Nueces River Basin Watershed.

Performance Standards:

10.3 (a): Annually report the number of requests and number of programs participated in.

Management Goals Not Applicable to the District

The Control and Prevention of Subsidence

The geologic framework, the population level, and the current groundwater demands of the District preclude any significant subsidence from occurring. This management goal is not applicable at this time to the operations of the District.

Addressing Recharge Enhancement

This management goal is not applicable to the operations of the District as it is cost prohibitive at this time. Nor is it thought that the karst formation of the aquifer is readily conducive to this issue.

Addressing Precipitation Enhancement

As mentioned herein above the District is part of the Edwards Aquifer Precipitation Enhancement Program. However, to our knowledge there has been little to any activity in Edwards and/or Real County. While the District is supportive of such a program the cost make it prohibitive. Therefore this management goal is not applicable to the operations of the District at this time.

Note: It should be noted that the performance standards of many of the above goals and objectives overlap and that in complying with one objective another may be addressed as well. For example, news articles written and/or public speaking engagements given may include information on conservation, pollution, rainwater harvesting and/or other topics related to the objectives of the District and will be counted towards meeting the performance standard for each.

Reference Tables In Support of Information within this Plan

Table 1

Estimated Annual Amount of Recharge from Precipitation to the District

Aquifers or Confining Units	Results ^{in acre feet per year}
Edwards and associated limestones	86,361
Undifferentiated Trinity Units	12,658
Total	99,019

Table 2

Estimated Annual Volume of Water that Discharges from the Aquifer to Springs, Streams, and

Rivers

Aquifers or Confining Units	Results ^{in acre feet per year}
Edwards and associated limestones	57,158
Undifferentiated Trinity Units	3,871
Total	61,029

Table 3

Estimated Annual Volume of Flow into the District within Each Aquifer in the District

Aquifers or Confining Units	Results ^{in acre feet per year}
Edwards and associated limestones	13,468
Undifferentiated Trinity Units	12,542
Total	26,010

Estimated Annual Volume of Flow Out of the District within Each Aquifer in the District

Aquifers or Confining Units	Results ^{in acre feet per}
	year
Edwards and associated limestones	45,904
Undifferentiated Trinity Units	34,809
Total	80,713

Table 5 Estimated Net Annual Volume of Flow between Each Aquifer in the District

Aquifers or Confining Units	Results ^{in acre feet per}
	year
Edwards & associated limestones	5,310
flowing into undifferentiated Trinity	
Units	
Total	5,310

Information used for Tables 1-5 taken from TWDB GAM Run 8-86, January 5th, 2009

County								
	Water User Group	2000	2010	2020	2030	2040	2050	2060
	Rocksprings	260	272	279	268	256	250	240
Edwards	County Other	165	173	177	169	163	158	152
	Manufacturing	0	0	0	0	0	0	0
	Irrigation	160	153	147	141	135	129	123
	Mining	6	5	5	5	5	5	5
	Livestock	562	562	562	562	562	562	562
	Edwards County							
	Totals	1,153	1,165	1,170	1,145	1,121	1,104	1,082
	Water User Group							
	Camp Wood	174	172	172	166	160	163	167
Real	County Other	431	428	427	411	396	405	413
	Manufacturing	0	0	0	0	0	0	0
	Irrigation	408	392	377	361	346	330	314
	Mining	6	5	5	5	5	5	5
	Livestock	176	176	176	176	176	176	176
	Real County Totals	1,195	1,173	1,157	1,119	1,083	1,079	1,075
District								
Total		2,348	2,338	2,327	2,264	2,204	2,183	2,157

Table 6Projected Total Water Demand in Acre Feet per Year

Data for this table provided by the Region J (Plateau Region Planning Group) as accepted in 2007 State Water Plan

Table 7A Historical Water Use Estimate Summary TWDB - Water Use Survey Real-Edwards C and RD

Unit: Acre Feet (ACFT)

District Totals

Year	County	Municipal	Manufacturing	Steam Electric	Irrigation	Mining	Livestock	Total
	Edwards	426	0	0	160	6	562	1,154
2000	Real	614	0	0	143	6	176	939
	Total	1,040	0	0	303	12	738	2,093
2004	Edwards	321	0	0	130	6	520	977
2001	Real	542	0	0	168	6	158	874
	Total	863	0	0	298	12	678	1,851
0000	Edwards	278	0	0	202	6	460	946
2002	Real	212	0	0	168	6	160	546
	Total	490	0	0	370	12	620	1,492
0000	Edwards	273	0	0	325	6	446	1,050
2003	Real	516	0	0	300	6	141	963
	Total	789	0	0	625	12	587	2,013
0004	Edwards	278	0	0	378	6	439	1,101
2004	Real	267	0	0	175	6	136	584
	Total	545	0	0	553	12	575	1,685

NOTE: All Pumpage reported in acre-feet

2/23/2009

Source: TWDB Water Use Survey Database

(http://www.twdb.state.tx.us/wushistorical/DesktopDefault.aspx?PageID=1)

Table 7BHistorical Groundwater Pumpage SummaryTWDB - Water Use Survey

Unit: Acre Feet (ACFT)

Year	County	Aquifer	Municipal	Irrigation	Mining	Livestock	Total
1999	Edwards	EDWARDS-TRINITY PLATEAU	406	143	6	454	1,009
	Real	EDWARDS-TRINITY PLATEAU	125	245	6	125	501
		OTHER	183	0	0	0	183
	Total		<mark>714</mark>	<mark>388</mark>	<mark>12</mark>	<mark>579</mark>	<mark>1,693</mark>
2000	Edwards	EDWARDS-TRINITY PLATEAU	426	160	6	450	1,042
	Real	EDWARDS-TRINITY PLATEAU	126	23	6	140	295
		OTHER	184	0	0	0	184
	Total		736	183	12	590	1,521
2001	Edwards	EDWARDS-TRINITY PLATEAU	462	130	6	416	1,014
	Real	EDWARDS-TRINITY PLATEAU	95	24	6	126	251
		OTHER	195	0	0	0	195
	Total		752	154	12	542	1,460
2002	Edwards	EDWARDS-TRINITY PLATEAU	398	202	6	368	974
	Real	EDWARDS-TRINITY PLATEAU	100	24	6	127	257
		OTHER	179	0	0	0	179
	Total		677	226	12	495	1,410
	Edwards	EDWARDS-TRINITY PLATEAU	355	137	6	402	900
2003	Real	EDWARDS-TRINITY PLATEAU	106	18	6	112	242
		OTHER	180	0	0	0	180
	Total		641	155	12	514	1,322

NOTE: All Pumpage reported in acre-feet

2/23/2009

Source: TWDB Water Use Survey Database (http://www.twdb.state.tx.us/wushistorical/DesktopDefault.aspx?PageID=2) NOTE... Manufacturing and Steam Electric user groups excluded as there is no demand in the District

Real County	Acre Ft/Yr
Camp Wood	143.63
Leakey	204.61
Real Water Supply Corp.	34.45
Domestic Wells	365.83
Livestock & Game	435.8
Permits other than Real County Well	132
Other Use	13.26
Total County Use	1,329.16
Edwards County	Acre Ft/Yr
Rocksprings	203.36
Barksdale	17.40
Domestic Well	335.66
Livestock & Game	352.09
Permits other than Rocksprings City	
well	334.5
Other use	5.78
Total County Use	1,248.79
Total Use District	2,577.95

Table 8ADistrict Current Water Use Summary

Data for this table based upon District study and projections from District Data base file

Table 8B							
District Historical Water Use Summary in acre feet per year							
Year	FY '09	FY '08	FY '07	FY '06	FY '05	FY '04	
Total Permits	984.5	984.5	423.0	30.0	30.0	0.0	
Total Domestic	701.5	668.0	619.9	575.2	541.3	475.9	
Total Livestock	787.9	787.9	787.9	787.9	787.9	787.9	
Additional Estimate for Oil & Gas and wild life	195.0	137.6	137.6	137.6	137.6	137.6	
Totals	2,668.9	2,578.0	1,968.3	1,530.6	1,496.7	1,401.3	

This table derived from District data base and estimates from local user groups

Table 9 2007 State Water Plan Projected Water Management Strategies Real-Edwards C and RD Real County

WUG	River Basin	Water Management Strategy	Source Name	Source County	2010	2020	2030	2040	2050	2060
Camp Wood	Nueces	Conservation: Public Education	Conservation	Real	0	0	0	0	0	0
Camp Wood	Nueces	Conservation: Water Audit and Loss Audit	Conservation	Real	2	2	2	2	2	2
Camp Wood	Nueces	Drill Groundwater Wells	Edwards-Trinity Plateau Aquifer	Real	172	172	172	172	172	172
Total Projected Water Management Strategies (acre-feet per year) =				174	174	174	174	174	174	

Source: Volume 3, 2007 State Water Planning Database (http://www.twdb.state.tx.us/DATA/db07/defaultReadOnly.asp)

2/23/2009

COUNTY	AQUIFER / RIVER	SOURCE			
EDWARDS	Edwards-Trinity	Colorado	2,610		
	Edwards-Trinity	Nueces	3,480		
	Edwards-Trinity	Rio Grande	2,609		
	Nueces	Nueces	143		
	South Llano	Colorado	43		
	COUNTY TOTAL		8,885		
REAL	Edwards-Trinity	Colorado	200		
	Edwards-Trinity	Nueces	5,537		
	Trinity	Nueces	380		
	Frio River Alluvium	Nueces	560		
	Nueces / Frio	Nueces	2,162		
	COUNTY TOTAL		8,839		
	Totals				

Table 10 WATER SOURCE AVAILABLE (acre-feet/year)

Data for this table supplied by Plateau Regional Planning Group as in 2007 State Water Plan

Table 11 Projected Surface Water Supplies Real-Edwards C and RD

Edwards County										
RWPG	Water User Group	County	River Basin	Source Name	2010	2020	2030	2040	2050	2060
J	Irrigation	Edwards	Colorado	South Llano River Combined Run-of- River	43	43	43	43	43	43
J	Irrigation	Edwards	Nueces	Nueces River Combined Run-of- River	138	138	138	138	138	138
J	Irrigation	Edwards	Nueces	West Nueces River Combined Run-of- River	5	5	5	5	5	5
J	Livestock	Edwards	Colorado	Other Local Supply	61	61	61	61	61	61
J	Livestock	Edwards	Colorado	South Llano River Combined Run-of- River	0	0	0	0	0	0
J	Livestock	Edwards	Nueces	Other Local Supply	62	62	62	62	62	62
J	Livestock	Edwards	Nueces	West Nueces River Combined Run-of- River	0	0	0	0	0	0
Total Projected Surface Water Supplies (acre-feet per year) = 309				309	309	309	309	309	309	

Source: Volume 3, 2007 State Water Planning Database

(http://www.twdb.state.tx.us/DATA/db07/defaultReadOnly.asp)

Real County Water User River RWPG Source Name County 2010 2020 2030 2040 2050 2060 Group Basin Old Faithful Springs Camp J Real Nueces 0 0 0 0 0 0 Wood River Run-of-River Nueces River County J Real Nueces Combined Run-of-0 0 0 0 0 0 Other River Frio River Combined Run-of-J Irrigation Real Nueces 1.514 1.514 1.514 1.514 1.514 1.514 River Nueces River J Irrigation Real Nueces Combined Run-of-648 648 648 648 648 648 River J Livestock Real Colorado Other Local Supply 24 24 24 24 24 24 Frio River Combined Run-of-0 0 0 J Livestock Real Nueces 0 0 0 River Nueces River 0 0 J Livestock Real Nueces Combined Run-of-0 0 0 0 River J Livestock Real Nueces Other Local Supply 25 25 25 25 25 25 Total Projected Surface Water Supplies (acre-feet per year) = 2,211 2,211 2,211 2,211 2,211 2,211

Source: Volume 3, 2007 State Water Planning Database

2/23/2009

(http://www.twdb.state.tx.us/DATA/db07/defaultReadOnly.asp)

2/23/2009

Current District Board Members

Real Edwards Conservation & Reclamation District Current Board Members

Perry Bushong, President-CFO 661 Bushong Rd. Mt Home, TX 78058 (830) 640-3383 Mobile (830) 739-2758 fax (830) 640-3204 Email cedarsprings@hctc.net

> William (Bob) Burditt P.O. 1010 Leakey, TX 78873 Phone (830) 232-6965 Fax: none Mobile: 830-279-4421 Email <u>burditt@hctc.net</u>

Charles Carson, III PO Box 528 Rocksprings, Texas 78880 Phone (830) 683-4178 Office: (830) 683-2119 Mobile (830) 683-7159 Fax: (830) 683-5219 Email: ccarson@psbrocksprings.com

Stan Cottle P.O. Box 205 Rocksprings, TX 78880 Home (830) 683-4118 Office (830) 683-3101 Fax (830) 683-5219 Email: stancottle@yahoo.com

> Clayton Crider PO Box 265 Leakey, Texas 78873 (830) 232-5584 Mobile (830) 374-7864 Email: bon@hctc.net

Sam A. Epperson P.O. Box 264 Rocksprings, TX 78880 Home (830) 683-2333 Office (830) 683-6412 Email: <u>samandpaula5@agristar.net</u>

> Carl Hyde 29 N. Ranch Rd. 335 Rocksprings, TX 78880 Home (830) 683-4205 Fax (830) 683-4208 Cell (830) 683-7006 Email <u>lazyh@swtexas.net</u>

Sonja Klein, Sec./Treas. P.O. Box 192 Barksdale, TX 78828 Home (830) 234-3156 <u>sonja@swtexas.net</u>

Roland Trees, Vice President 1347 Trees Ranch Rd Mt. Home, TX 78058 (830) 640-3361 Fax (830) 640-3101 Mobile (830) 459-2167 treesfam@omniglobal.net

Notice of Public Hearing And Copies of News Paper Postings

Board Resolution Adopting Plan

Letters to Surface Water Entities

Miscellaneous Letters To Other Entities