BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT

Groundwater Management Plan

Originally Adopted March 5, 2013
Amended & re-adopted August, 2018

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I. DISTRICT MISSION AND OBJECTIVES

The Brush Country Groundwater Conservation District ("District") strives to preserve and protect the groundwater resources within its boundaries. The District recognizes that groundwater conservation districts are the state's preferred method of groundwater management and will work with local stakeholders towards achieving its objectives. The District will accomplish its objectives by working to lessen interference between water wells, minimize drawdown of groundwater levels, prevent the waste of groundwater, and reduce the degradation of groundwater quality within the District while helping the local economies maintain and improve their current condition. The District will also use the authority granted in its Enabling Act and applicable state laws to protect and maintain the groundwater resources of the District.

II. PURPOSE OF GROUNDWATER MANAGEMENT PLAN

The purpose of this Management Plan is to provide a planning tool for the District as it works to manage, protect, and conserve the groundwater resources within its boundaries. This Management Plan currently contains the hydrogeological and technical information provided by the Texas Water Development Board ("TWDB") for the groundwater resources of the District. As the District obtains more site-specific groundwater information, the District will update and amend this Management Plan as necessary.

The development of the District's Management Plan will enable the District to comply with the requirements of state law. The Texas Legislature created a statewide water planning process with the passage of Senate Bill 1 ("SB 1") in 1997, Senate Bill 2 ("SB 2") in 2001, and Senate Bill 3 ("SB 3") in 2007. The development of management plans by each groundwater conservation district in Texas is an integral part of the statewide water planning process. The District's Management Plan satisfies all the requirements established for groundwater conservation districts by SB 1, SB 2, SB 3, the requirements Chapter 36 of the Texas Water Code, and the requirements under TWDB rules.

III. DISTRICT INFORMATION

A. District Creation.

The District was created by the 81st Texas Legislature, Regular Session, in 2009 with the enactment of Senate Bill 2456 (attached to this plan as "Appendix A" now codified as Chapter 8852 Texas Special District Local Laws Code). The creation of the District was confirmed by the citizens located within the District's boundaries in Jim Hogg, Jim Wells, Brooks, and Hidalgo Counties at an election held on November 3, 2009. The District contains the authority and responsibilities specified in its Enabling Act, Chapter 36 of the Texas Water Code, the TWDB Rules, this Groundwater Management Plan, and the District Rules, as they may be amended.

B. District Board of Directors.

The Board of Directors is made up of nine members. The directors for the District are appointed by the Commissioners Courts of Jim Hogg, Jim Wells, and Brooks Counties. The Commissioners Court of Brooks County must appoint one director to represent the municipal interests of the City of Falfurrias and two directors to represent the agricultural interests of the territory in Brooks County that is outside the City of Falfurrias and not within the Kenedy County Groundwater Conservation District and the portion of Hidalgo County within the District. The Commissioners Court of Jim Hogg County must appoint one director to represent the interests of Jim Hogg County within the service area of the Jim Hogg County Water Control and Improvement District No. 2 and two directors to represent the agricultural interests of the area of Jim Hogg County outside the service area of the Jim Hogg County Water Control and Improvement District No. 2. The Commissioners Court of Jim Wells County must appoint two directors to represent the agricultural interests of the area of Jim Wells County outside the City of Alice[1] and not within the Kenedy County Groundwater Conservation District. The Commissioners Courts of both Brooks and Jim Hogg Counties must jointly appoint one director to represent the industrial and mining interests of Jim Hogg and Brooks Counties. District directors serve staggered four-year terms that expire on June 1 of each even-numbered year.

C. Authority of District.

The District has the authority and duties given to groundwater conservation districts by Texas Water Code Chapter 36, 31 Texas Administrative Code (TAC) Chapter 356, and the District's Enabling Act. The District exercises the authority given to preserve and protect the groundwater resources of the District through the adoption and implementation of District rules.

D. Location and Extent of District Boundaries.

i. The District's boundaries consist of the entire territory within Jim Hogg County, the area within Jim Wells County that is not within the Kenedy County Groundwater Conservation District and outside the corporate limits of the City of Alice, the area of Brooks County not within the Kenedy County Groundwater Conservation District, and a portion of northern Hidalgo County. A map of the District is contained in Appendix B.

1 The District does not include the corporate limits of the City of Alice existing as of January 1, 2009.

E. Groundwater Resources of District.

The TWDB has identified the Gulf Coast aquifer as the only major aquifer within the District's boundaries. The TWDB defines major aquifers as aquifers that are capable of producing large yields to wells or that produce groundwater over a large area. The only minor aquifer recognized within the District is the Yegua-Jackson aquifer, which covers a small portion of southwestern Jim Hogg County. Minor aquifers tend to be smaller and produce less water than major aquifers.

A diagram of the Gulf Coast aquifer can be found at Figure 1 below. The TWDB generally describes the groundwater resources of the Gulf Coast aquifer as follows:

The Gulf Coast aquifer forms a wide belt along the Gulf of Mexico from Florida to Mexico. In Texas, the aquifer provides water to all or parts of 54 counties and extends from the Rio Grande northeastward to the Louisiana-Texas border. Municipal and irrigation uses account for 90 percent of the total pumpage from the aquifer. The Greater Houston metropolitan area is the largest municipal user, where well yields average about 1,600 gal/min.

The Gulf Coast aquifer consists of complex interbedded clays, silts, sands, and gravels of Cenozoic age, which are hydrologically connected to form a large, leaky artesian aquifer system. This system comprises four major components consisting of the following generally recognized water-producing formations. The deepest is the Catahoula, which contains ground water near the outcrop in relatively restricted sand layers. Above the Catahoula is the Jasper aquifer, primarily contained within the Oakville Sandstone. The Burkeville confining layer separates the Jasper from the overlying Evangeline aquifer, which is contained within the Fleming and Goliad sands. The Chicot aquifer, or upper component of the Gulf Coast aquifer system, consists of the Lissie, Willis, Bentley, Montgomery, and Beaumont formations, and overlying alluvial deposits. Not all formations are present throughout the system, and nomenclature often differs from one end of the system to the other. Maximum total sand thickness ranges from 700 feet in the south to 1,300 feet in the northern extent.

Water quality is generally good in the shallower portion of the aquifer. Ground water containing less than 500 mg/l dissolved solids is usually encountered to a maximum depth of 3,200 feet in the aquifer from the San Antonio River Basin northeastward to Louisiana. From the San Antonio River Basin southwestward to Mexico, quality deterioration is evident in the form of increased chloride concentration near the coast. Little of this ground water is suitable for prolonged irrigation due to either high salinity or alkalinity, or both. In several areas at or near the coast, including Galveston Island and the central and southern parts of Orange County, heavy municipal or industrial pumpage had previously caused an updip migration, or saltwater intrusion, of poor-quality water into the aquifer. Recent reductions in pumpage here have resulted in a stabilization and, in some cases, even improvement of ground-water quality.

Brooks County

Excerpts from a TWDB report specific to Brooks County describe the groundwater resources of Brooks County as follows:

The rock formations that contain fresh to slightly saline water are sedimentary deposits of Tertiary and Quaternary age. They include, in order of decreasing age, the Oakville Sandstone, Lagarto Clay, Goliad Sand, Lissie Formation, Beaumont Clay, and recent windblown sand. All formations, except the Oakville and the Lagarto, crop out in Brooks County. The formations consist principally of interbedded sand and clay deposits; the sand constitutes the principal aquifer in the county.

All of the formations containing fresh to slightly saline water in Brooks County are considered to be part of the principal (Gulf Coast) aquifer. The formations are composed of non-marine sand and sandstone interbedded with clay. The sedimentary rocks become finer grained and some beds of sand grade into clay toward the coast. Correlation of individual sand or clay beds is difficult even over short distances because of the heterogenous character of the sedimentary rocks. Because the character of much of the sedimentary rocks comprising the Goliad Sand, Lissie Formation, Beaumont Clay, and windblown sand have similar electrical properties, the geologic sections, which are based on electrical logs, show only the Oakville Sandstone, Lagarto Clay, and Goliad Sand and rocks younger than the Goliad Sand.

The regional dip of the formations in Brooks County is to the east and southeast toward the Gulf. A major fault zone crosses the county along a line from near the southwest corner to the vicinity of Falfurrias. The fault was not observed at the surface. An examination of electric logs of oil wells along and near the fault zone indicates that the displacement decreases toward the surface, and that at shallow depths of less than 1,500 to 2,000 feet, hardly a trace of the fault exists. Consequently, this structural feature does not affect the circulation of groundwater in the county.

Rainfall in Brooks County and adjoining areas is the source of all fresh groundwater occurring in the county. Groundwater in Brooks County occurs under both water-table and artesian conditions, depending on whether the water is unconfined (under atmospheric pressure only) or confined. Water-table conditions usually prevail at shallow depths in the outcrop areas of the aquifers, whereas artesian conditions generally prevail downdip from the outcrop where the aquifers are overlain by less permeable material. Water in a well penetrating the artesian aquifers will rise to an altitude higher than the bottom of the confining layer. This rise is caused by the pressure from the

weight of the water in the updip part of the aquifers and by the pressure from overlying rock formations.[2]

Southern Jim Wells County

Excerpts from a report addressing the groundwater resources of southern Jim Wells County describes the southern Jim Wells County study area as follows:

The geologic formations that contain fresh to slightly saline water are, in order of decreasing age, the Oakville Sandstone and the Lagarto Clay of Miocene age, the Goliad Sand of Pliocene age, and the Lissie Formation and Beaumont Clay (including barrier island and beach deposits) of Pleistocene age, the south Texas eolian plain deposits of Pleistocene and Holocene age, and the barrier island deposits and alluvium of Holocene age. All of these units are exposed in the report area except the Goliad Sand, Lagarto Clay, and Oakville Sandstone, which crop out in counties west of the report area.

The geologic formations, except the alluvium and south Texas eolian plain deposits, crop out in belts that are nearly parallel to the Gulf Coast. Younger formations generally crop out close to the coast and successively older ones farther inland. Because of the different ages of the formations, the outcrops are progressively eroded and dissected inland. For example, the outcrop of the Beaumont Clay and Lissie Formation, undifferentiated, which covers most of Kleberg County, is comparatively uneroded in contrast to the uneven and dissected outcrop of the Goliad Sand farther inland. The alluvium and south Texas eolian plain deposits transgress the other geologic formations and are elongated mostly normal to the Gulf Coast.

The lithology, dip, and thickness of many of the geologic formations change in the direction of the dip; and the lithology and thickness commonly change laterally along the strike. Sand beds may grade laterally into clay or silt within short distances. These sand beds and other beds containing water are interconnected with similar beds on a different level, so that a series of water-bearing beds within a formation, or even within a group of formations, function as a single aquifer. Both dips and thicknesses of the formations increase gulfward, and the clastic sediments composing the geologic formations grade from fluviatile and deltaic sand, silt, and clay in inland areas to predominantly finer sediments that interfinger with brackish and marine sediments near the Gulf Coast and offshore.[3]

[2] Groundwater Resources of Brooks County, Texas, U.S. Geological Survey, Texas Water Development Board Report 61, by B.N. Myers and O.C. Dale, October 1967.

[3] Ground-Water Resources of Kleberg, Kenedy, and Southern Jim Wells Counties, Texas, Texas Water Development Board Report 173, U.S. Geological Survey, by G. H. Shafer and E. T. Baker, Jr., July 1973.

Southwestern Jim Hogg County

A diagram of the Yegua-Jackson aquifer can be found at Figure 2 below. The Yegua-Jackson aquifer is located only in a small portion of southwestern Jim Hogg County. The TWDB generally describes the groundwater resources of the Yegua-Jackson aquifer as follows:

The Yegua-Jackson aquifer extends in a narrow band from the Rio Grande and Mexico across the State to the Sabine River and Louisiana. Although the occurrence, quality, and quantity of water from this aquifer are erratic, domestic and livestock supplies are available from shallow wells over most of its extent. Locally water for municipal, industrial, and irrigation purposes is available. Yields of most wells are small, less than 50 gallons per minute, but in some areas, yields of adequately constructed wells may range to more than 500 gallons per minute. The Yegua-Jackson aquifer consists of complex associations of sand, silt, and clay deposited during the Tertiary Period. Net freshwater sands are generally less than 200 feet deep at any location within the aquifer. Water quality varies greatly within the aquifer, and shallow occurrences of poor-quality water are not uncommon. In general, however, small to moderate amounts of usable quality water can be found within shallow sands (less than 300 feet deep) over much of the Yegua-Jackson aquifer.[4]

[4] Aquifers of Texas, Texas Water Development Board, Report 345, by Ashworth and Hopkins, November 1995.

FIGURE 1

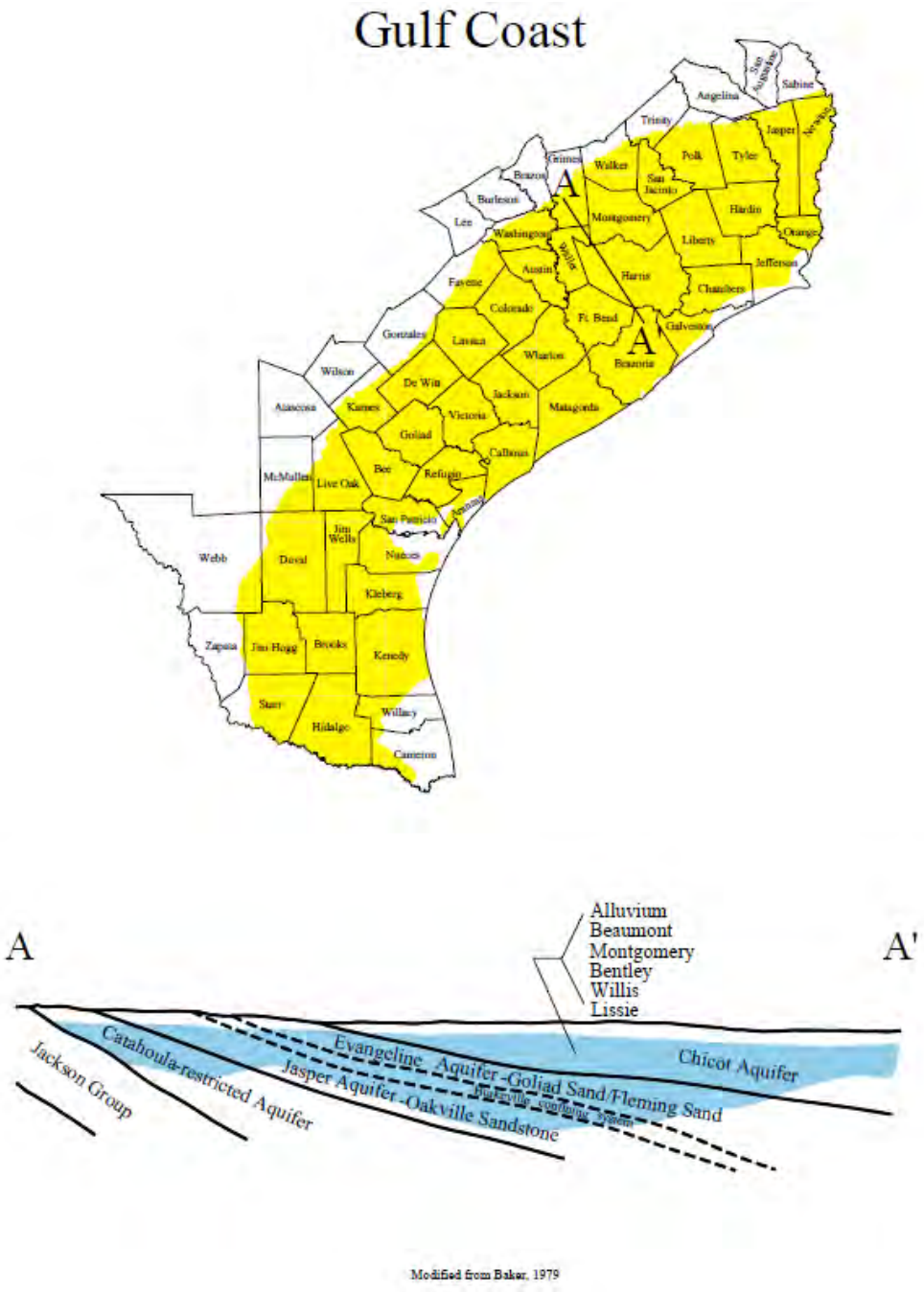
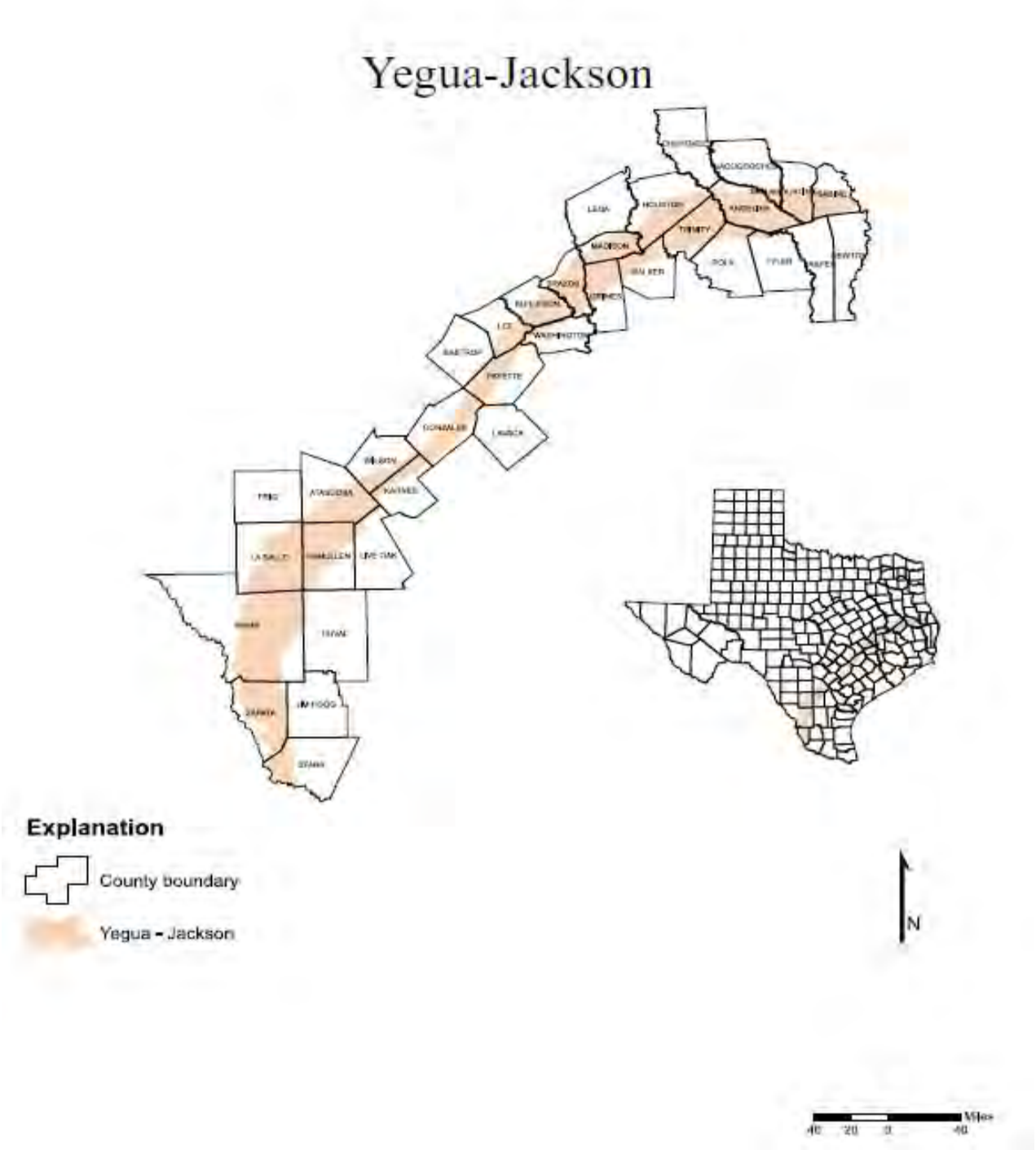

Gulf Coast
A
A'
Alluvium
Beaumont
Montgomery
Bentley
Willis
Lissie
Chicot Aquifer
Evangeline Aquifer-Goliad Sand/Fleming Sand
Jasper Aquifer-Oakville Sandstone
Catahoula-restricted Aquifer
Jackson Group
Modified from Baker, 1979

FIGURE 2


Yegua-Jackson
Explanation
County boundary
Yegua - Jackson
N

IV. CRITERIA FOR PLAN APPROVAL

A. Planning Horizon.

The Management Plan is adopted to be effective for a ten (10) year planning period, which will begin on the date TWDB approves this plan. In accordance with Section 36.1072(e) of the Texas Water Code and TWDB Rules (in 31 TAC §356.3), the District will review and re-adopt its Management Plan, with or without amendments, every five years and will re-submit its Management Plan for TWDB approval after re-adoption. This Management Plan will be effective until replaced by a revised plan that has been approved by the TWDB.

B. Plan Adoption.

Public notices demonstrating that this Management Plan was adopted after the required public hearings and Board meeting are attached to this plan as "Appendix C".

C. Board Resolution.

A certified copy of the resolution of the Board of Directors of the District adopting this Management Plan is attached to this plan as "Appendix D".

D. Coordination with Surface Water Management Entities.

The surface water management entities within the District include the Nueces River Authority, the City of Corpus Christi through its ownership of Lake Corpus Christi, and the Jim Wells County Fresh Water Supply District No. 1. Sample correspondence sent to these entities, as well as Region M (Rio Grande Regional Water Planning Area) and Region N (Coastal Bend Regional Water Planning Group) and a list of recipients is attached to this plan as "Appendix E".

V. ESTIMATES OF TECHNICAL INFORMATION REQUIRED BY 31 TAC 356.5 AND TEX. WATER CODE § 36.1071

A. Modeled available groundwater in the district based on the desired future condition established under Tex. Water Code 36.108 — 31 TAC 356.52 (a)(5)(A) and Texas Water Code § 36.10701(e)(3)(A).

Modeled available groundwater is defined in Texas Water Code § 36.001(25) as the amount of water that "may be produced on an average annual basis to achieve a desired future condition established under Section 36.108." Under Texas Water Code § 36.108(d), the desired future condition may only be determined through joint planning

with other groundwater conservation districts ("GCDs") in the same groundwater management area ("GMA"). The District is located in GMA-16.

On August 30, 2010, the authorized voting representatives of GMA-16 established a DFC of the Gulf Coast Aquifer of a GMA-wide average of approximately 94 feet through 2060 consistent with scenario 10 of GAM Run 09-008.

As provided under Texas Water Code § 36.108(d), at a minimum, every five years the District must revisit the adoption of its DFCs. On January 17, 2017, the authorized voting representatives of GMA-16 adopted a new DFC for the Gulf Coast Aquifer. The adopted DFCs are based on acceptable levels of drawdown for each county and the entire GMA from 2010-2060. The DFC for the counties in GMA-16 shall not exceed an average drawdown of 62 feet for the Gulf Coast Aquifer System in December 2060. DFCs for the Gulf Coast Aquifer in each county within the GMA (County-specific DFCs) shall not exceed the values specified in the table below:

GCD or Region	Simulated Drawdown (ft) 2010-2060				
	Chicot	Evangeline	Burkeville	Jasper	Combined
Bee GCD	106	84	73	60	76
Live Oak UWCD	79	64	60	19	34
McMullen GCD	0	0	0	9	9
Red Sands GCD	38	41	40	39	40
Kenedy County GCD	15	104	21	21	40
Brush Country GCD	47	76	68	69	69
Duval County GCD	78	133	95	85	104
San Patricio County GCD	88	60	23	22	48
Starr County GCD	0	83	74	55	69
Non-district Cameron	62	122	48	48	70
Non-district Hidalgo	143	151	96	94	118
Non-district Kleberg	7	85	10	9	28
Non-district Nueces	22	39	11	11	21
Non-district Webb	0	151	0	71	113
Non-district Willacy	28	85	23	23	40
GMA 16	47	97	49	49	62

The resolution adopting the DFC is included in Appendix F.

GMA 16 submitted a DFC explanatory report to the TWDB on April 4, 2017. On April 19, 2017, the TWDB declared the GMA-16 explanatory report administratively complete. On May 23, 2017, the District Board of Directors adopted the DFCs. Because of a notice deficiency in connection with the May 23, 2017 adoption, the Board re-noticed and adopted the DFCs on September 26, 2017. A copy of the District resolution adopting the DFCs is included in Appendix G.

Following the GMA-16 submission of the DFC to the TWDB, the TWDB produced GAM Run 17-025 MAG. This GAM Run is the total amount of pumping from the aquifer including uses of water both subject to permitting and exempt from permitting. The pumping output from the groundwater availability model is the estimate of the modeled available groundwater under the Water Code definition. The modeled available groundwater for the District for each decade between 2010 and 2060 is: 2010-14,182 acre-feet per year; 2020-18,672 acre-feet per year; 2030-19,037 acre-feet per year; 2040-19,365 acre-feet per year; 2050-19,730 acre-feet per year; and, 2060 – 20,022 acre-feet per year.

B. Amount of groundwater being used within the district on an annual basis — 31 TAC 356.52 (a)(5)(B) and Tex. Water Code §36.1071(e)(3)(B).

To estimate the annual groundwater being used in the District, the District relies on the December 18, 2012 TWDB report entitled "Estimated Historical Groundwater Use and 2017 State Water Plan Datasets: Brush Country Groundwater Conservation District" (Datasets). Please refer to Appendix H.

C. Annual amount of recharge from precipitation to the groundwater resources within the district — 31 TAC 356.52(a)(5)(C) and Tex. Water Code § 36.1071(e)(3)(C).

Please refer to Appendix I.

D. For each aquifer, the annual net volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers — 31 TAC 356.52 (a)(5)(D) and Tex. Water Code § 36.1071(e)(3)(D).

Please refer to Appendix I.

E. Annual volume of flow into and out of the district within each aquifer and between aquifers in the district, if a groundwater availability model is available — 31 TAC 356.52 (a)(5)(E) and Tex. Water Code §36.1071(e)(3)(E).

Please refer to Appendix I.

F. Projected surface water supply in the district, according to the most recently adopted state water plan — 31 TAC 356.52 (a)(5)(F) and Tex. Water Code §36.1071(e)(3)(F).

Please refer to Appendix H.

G. Projected total demand for water in the district according to the most recently adopted state water plan — 31 TAC 356.52 (a)(5)(G) and Tex. Water Code §36.1071(e)(3)(G).

Please refer to Appendix H.

VI. CONSIDER THE WATER SUPPLY NEEDS AND WATER MANAGEMENT STRATEGIES INCLUDED IN THE ADOPTED STATE WATER PLAN – Texas Water Code § 36.1071(e)(4)

Please refer to Appendix H.

VII. DETAILS ON THE DISTRICT MANAGEMENT OF GROUNDWATER – 31 TAC 356.52(a)(4)

The Texas Legislature has established that groundwater conservation districts, such as the Brush Country Groundwater Conservation District, are the state's preferred method of groundwater management. The Texas Legislature codified its groundwater management policy decision in Section 36.0015 of the Texas Water Code, which provides that districts will manage the groundwater resources within their boundaries through rules developed and implemented in accordance with Chapter 36 of the Texas Water Code. Chapter 36 provides directives for districts and the statutory authority to carry out such directives to enable districts to have the necessary tools to protect and preserve the groundwater resources with their boundaries. The District will use the regulatory tools it has been given by Chapter 36 to properly address the groundwater issues within its boundaries, including groundwater supply and groundwater quality. While using its regulatory tools to accomplish the District's statutory objectives, the District will give strong consideration to the economic and cultural activities which occur within the District and which rely upon the continued use of groundwater.

Section 36.1072 of the Water Code requires the District to adopt rules necessary to implement this management plan. The District's proposed rules are available on the District's website at www.brushcountrygcd.com and are contained in Appendix J.

One of the District's objectives is to lessen the interference between wells. District rules require wells to comply with spacing requirements set forth in the Texas Water Well Drillers and pump Installers Rules. The District may establish additional spacing rules which require new wells to be spaced a certain distance from existing or previously permitted wells. The District follows the statutory exemption from spacing requirements such as for wells drilled under a permit issued by the Railroad Commission or for production from wells to the extent withdrawals are required for mining activities. Another way the District can work to lessen interference between wells is to require existing and new wells not otherwise exempted from registration, to register with the District. This requirement will allow the District to have information on the location and proximity of all wells within its boundaries. The District also requires hydrogeologic reports for certain sized wells to determine well interference.

The District intends to help prevent the contamination of groundwater from abandoned and deteriorated water wells. Wells that have been abandoned or have not been properly maintained can cause surface contamination to quickly reach the groundwater resources of the District. To address this issue, the District is planning to require that all abandoned, deteriorated, or replaced wells be plugged in compliance with the Water Well Drillers and Pump Installers Rules of the Texas Department of Licensing and Regulation. The District is pursuing a program to help pay for plugging such wells. The District also requires capping of water wells that well owners plan to use at a later date. This will likely help to eliminate waste, prevent pollution, and stop future deterioration of well casing.

The District also uses the regulatory tools granted to districts by Chapter 36 to preserve and protect existing and historic users of groundwater within its boundaries. The Texas Legislature gives the District the authority to protect existing users of groundwater, which are those individuals or entities currently invested in and using groundwater or the groundwater resources within the District for a beneficial purpose. The Texas Legislature also provides the authority to preserve historic use by historic users, which are those individuals or entities who used groundwater beneficially in the past. Some uncertainty exists in permitting based upon historic use following the Texas Supreme Court decision in the *Edwards Aquifer Authority v. Day and McDaniel*. To the extent permitted under Chapter 36 and the case law following *EAA v. Day*, the District will strive to protect existing and historic use in accordance with Chapter 36, the District's rules, and the goals and objectives of this Management Plan. One of the tools the District uses to protect existing and historic use of groundwater is to establish a permitting process through the District's rules. Pursuant to legislative authority, including Section 36.113(e) of the Texas Water Code, the District can protect existing use by imposing more restrictive permit conditions on new permit applications and increased use by historic users. In protecting existing users, the District may establish limitations that apply to all subsequent new permit applications and increased use by historic users, regardless of type or location of use, which bear a reasonable relationship to this Management Plan and are reasonably necessary to protect existing use. In accordance with Section 36.116(b) of the Texas Water Code, the District preserves historic use when developing and implementing rules limiting groundwater production to the maximum extent practicable and consistent with this Management Plan.

The District intends to protect existing and historic users of groundwater by creating a monitoring well network for the District. The monitoring well network will enable the District to determine if new wells should be permitted based on the water levels indicated in various parts of the District's monitoring well network.

In order to better manage the groundwater resources within the District's boundaries, the District may establish management zones and adopt different rules for each subdivision of an aquifer or geologic strata located in whole or in part within the boundaries of the District or each geographic area overlying a subdivision of an aquifer located in whole or in part within the boundaries of the District. As previously stated, the District has rules to regulate groundwater withdrawals by means of spacing and/or production limits. The factors to be considered in

deciding whether to grant or deny a permit or limit groundwater withdrawals should include those factors set forth in the District's Enabling Act, Chapter 36 of the Texas Water Code, and the District's rules.

Finally, the District has or may develop rules that address production of groundwater by:

A. setting production limits on wells;
B. limiting the amount of water produced based on acreage or tract size;
C. limiting the amount of water that may be produced from a defined number of acres assigned to an authorized well site;
D. limiting the maximum amount of water that may be produced on the basis of acre-feet per acre or gallons per minute per well site per acre;
E. managed depletion; or
F. any combination of the methods listed above in Paragraphs (A) through (E).

VIII. ACTIONS, PROCEDURES, PERFORMANCE AND AVOIDANCE FOR PLAN IMPLEMENTATION — 31 TAC 356.52 (a)(4) and Tex. Water Code §36.1071(e)(2)

The District will use its Management Plan to direct the District's efforts to conserve and protect the groundwater resources within its jurisdiction. The District will make certain that all rules development, regulatory activities, and planning are consistent with this Management Plan.

Section 36.108 of the Texas Water Code requires the District to work and plan with other groundwater conservation districts in GMA-16. The District will use this Management Plan as part of its cooperation efforts with the neighboring groundwater conservation districts.

The rules for the District will be developed in coordination with the management goals and technical information provided in this Management Plan. The District's rules will be consistent with the provisions of this Management Plan and Chapter 36 of the Texas Water Code. The enforcement of the rules will be driven by the hydrogeological and technical information available to the District, including the information provided in this Management Plan. The District has drafted proposed rules. The District's rules are available on the website www.brushcountrygcd.com and are in Appendix J.

IX. METHODOLOGY FOR TRACKING PROGRESS TO ACHIEVE THE DISTRICT'S MANAGEMENT GOALS — 31 TAC §356.52 (a)(4)

To track its progress in achieving its management goals and objectives, the District will prepare an annual report ("Annual Report") to be submitted to and reviewed by its Board of Directors. The Annual Report will be submitted to the Board of Directors no later than 90 days following the end of the District's fiscal year. The Annual Report will address the District's performance regarding each of the management goals and objectives in this plan for the previous

fiscal year. Completion of the Annual Report began following the end of fiscal year 2012. The District will maintain a copy of the Annual Report for public review in its records after the Annual Report has been adopted by the Board of Directors.

X. DISTRICT GOALS, MANAGEMENT OBJECTIVES AND PERFORMANCE STANDARDS — 31 TAC §356.51

Each of the District's goals, objectives, and performance standards are addressed as follows:

A. Providing the Most Efficient Use of Groundwater - 31 TAC § 356.52 (a)(1)(A) and Tex. Water Code § 36.1071(a)(1).

1. *Objective*: The District requires the registration of wells not otherwise exempt from registration within the District's boundaries each year. Each year the District will locate and register a minimum of 100 wells.

   Performance Standard: The number of new and existing wells registered with the District will be provided in the Annual Report for each fiscal year.

2. *Objective*: The District requires permits for all groundwater use considered non-exempt within District boundaries each year. The District's permitting process is in the District's rules.

   Performance Standard: The District will accept and process permit applications for all non-exempt groundwater use pursuant to the permitting process described in the District Rules each year. The Annual Report for each year will contain a summary of the number of applications submitted to the District requesting authorization for the permitted use of groundwater and the number and type of permits issued by the District.

B. Controlling and Preventing Waste of Groundwater - 31TAC § 356.52 (a)(1)(B) and Tex. Water Code § 36.1071(a)(2).

1. *Objective*: Each year the District will provide information to the public on reducing and preventing the waste of groundwater. The District will use one of the methods set forth below to provide information to the public at least once during each fiscal year:

   a. Offer public presentations on groundwater issues, including waste prevention;
   b. Sponsor an educational program or course;

c. Distribute literature packets or brochures;
d. Provide information on the District's web site addressing the prevention of waste; or
e. Submit newspaper articles to the newspapers of general circulation within the District for publication;

Performance Standard: The Annual Report will include a summary of the District's efforts during the previous year to provide information to the public on the reducing and preventing the waste of groundwater.

2. *Objective*: The District will prohibit waste as defined by Chapter 36 of the Texas Water Code within its boundaries and will implement this prohibition through its rules.

Performance Standard: The District's Annual Report will include a summary of the number of well owners who violated the District's prohibition on waste and any action taken by the District.

C. Controlling and Preventing Subsidence – 31 TAC § 356.52 (a)(1)(C) and Tex. Water Code §36.1071(a)(3).

1. *Objective*: The District will evaluate for any signs of subsidence within its boundaries.

Performance Standard: The District will indicate in its Annual Report that it has evaluated for signs of subsidence and, if evidence of subsidence is found, shall provide an explanation in its Annual Report.

2. *Objective*: The District will stay abreast of subsidence issues within the GMA-16 area.

Performance Standard: The District will indicate in its Annual Report that it has stayed abreast of subsidence issues within the GMA-16 area and will provide a list of those groundwater conservation districts or other entities that have experienced any new evidence of subsidence within the previous year.

D. Addressing Conjunctive Surface Water Management Issues – 31 TAC §356.52 (a)(1)(D) and Tex. Water Code §36.1071(a)(4).

1. *Objective*: The District will participate in the regional water planning process by sending a District representative to attend at least one meeting of the Rio Grande Regional Water Planning Group ("Region M") and one meeting of the Coastal Bend Regional Water Planning Group ("Region

N") each year. The District will coordinate with the Nueces River Authority, a member of Region N, during attendance of the Region N Meeting.

Performance Standard: Attendance at the Region M meeting and the Region N meeting by a representative of the District will be included in the Annual Report and will provide the dates of attendance.

E. Addressing Natural Resource Issues which Impact the Use and Availability of Groundwater, and which are Impacted by the Use of Groundwater - 31TAC §356.52 (a)(1)(E); and Tex. Water Code §36.1071(a)(5).

1. *Objective*: Each year, the District will collect at least ten water level measurements from District monitor wells. The ten water level measurements will be taken from 3 wells in Brooks County, 3 wells in Jim Hogg County, 3 wells in Jim Wells County, and 1 well in Hidalgo County.

   Performance Standard: The District's Annual Report will include a description of the number of wells measured and the monitoring results of each well measured.

2. *Objective*: The District will monitor whether there are any significant impacts to wildlife common to the District that rely on the District's groundwater resources.

   Performance Standard: The District's Annual Report will indicate that the District monitored any impacts to wildlife and, if any significant impacts are found, will describe such impacts in its Annual Report.

F. Addressing Drought Conditions - 31TAC §356.52 (a)(1)(F) and Tex. Water Code §36.1071(a)(6).

1. *Objective*: The District will access at least one updated Palmer Drought Severity Index ("PDSI") map each quarter and will check for updates to the Drought Preparedness Council Situation Report ("Situation Report") posted on the following website: http://www.dps.texas.gov/dem/sitrep/default.aspx The District also will access useful drought information on the TWDB website: http://www.waterdatafortexas.org/drought .

   Performance Standard: The District will include the PDSI maps and Situation Reports it has reviewed in its Annual Report each year and will include a discussion of the current drought status of the District.

G. Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, or Brush Control, where Appropriate and Cost Effective - 31TAC §356.52 (a)(1)(G) and TWC §36.1071(a)(7).

1. *Objective*: The District will provide information to the public on water conservation at least once each fiscal year by one of the following methods:

   a. Distribute literature packets or brochures within the District;
   b. Provide information to the public on the District's web site;
   c. Conduct public presentations;
   d. Submit newspaper articles to newspapers of general circulation in the District for publication; or
   e. Present exhibits at local public events;

   Performance Standard: The District's Annual Report will provide a description of the District efforts and a copy of any information provided to the public during the previous year to promote conservation.

2. *Objective*: The District will provide information to the public by providing literature at the District's office, once the District establishes an office.

   Performance Standard: The District's Annual Report will include a copy of the information provided to the public at the District's office.

3. *Objective*: The District will promote rainwater harvesting by providing information on rainwater harvesting on the District's web site at least once each year, once a website is established for the District.

   Performance Standard: The District's Annual Report will include a copy of the information on rainwater harvesting which has been provided on the District web site within the previous fiscal year.

4. *Objective*: The District will inform the public about the brush control activities within the District's boundaries and the benefits of brush control by providing literature at the District's office, once the District establishes an office.

   Performance Standard: The District's Annual Report will include an update on the brush control activities within the District's boundaries and will provide a copy of the literature provided to the public at the District's office.

5. Precipitation enhancement is not an appropriate goal for the District at this time since there is not an operational precipitation enhancement program in the area or in other groundwater conservation districts in the vicinity of the District. The District recognizes the significant expense associated with precipitation enhancement programs and is currently unable to develop a precipitation enhancement program for this reason.

6. *Objective:* The District will begin to identify recharge areas within the District.

   Performance Standard: Any recharge areas identified during the year will be discussed in the District's Annual Report.

H. Addressing the Desired Future Conditions of the Groundwater Resources - 31TAC §356.52(a)(1)(H) and Tex. Water Code § 36.1071(a)(8).

1. *Objective*: Each year, the District will collect at least ten water level measurements from District monitor wells. The ten water level measurements will be taken from 3 wells in Brooks County, 3 wells in Jim Hogg County, 3 wells in Jim Wells County, and 1 well in Hidalgo County.

   Performance Standard: Each year the District will post the water level measurement collected and identify the aquifer from which the measurement is taken in the District's Annual Report and website. The District will include a discussion of the change in water level in each aquifer as compared to previous years' water level.

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4. 2006 Regional Water Management Plan, Region M - Regional Water Planning Group.

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APPENDIX LIST

APPENDIX A

SPECIAL DISTRICT LOCAL LAWS CODE

TITLE 6. WATER AND WASTEWATER

SUBTITLE H. DISTRICTS GOVERNING GROUNDWATER

For contingent expiration of this chapter, see Section 8852.003.

CHAPTER 8852. BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT

SUBCHAPTER A. GENERAL PROVISIONS

Sec. 8852.001. DEFINITIONS. In this chapter:

(1) "Board" means the board of directors of the district.

(2) "Director" means a member of the board.

(3) "District" means the Brush Country Groundwater Conservation District.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.002. NATURE OF DISTRICT. The district is a groundwater conservation district created under and essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.003. CONFIRMATION ELECTION REQUIRED. If the creation of the district is not confirmed in at least one of the territories described by Section 8852.023 at a confirmation election held before September 1, 2011:

(1) the district is dissolved on September 1, 2011, except that:

(A) any debts incurred shall be paid;

(B) any assets that remain after the payment of debts shall be transferred in equal amounts to Jim Hogg, Brooks, Hidalgo, and Jim Wells Counties; and

(C) the organization of the district shall be maintained until all debts are paid and remaining assets are transferred; and

(2) this chapter expires September 1, 2013.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.004. INITIAL DISTRICT TERRITORY.

(a) The district is initially composed of the territory described by Section 2 of the Act creating this chapter.

(b) The boundaries described in Section 2 of the Act creating this chapter form a closure. A mistake made in describing the district's boundaries in the legislative process does not affect the district's:

(1) organization, existence, or validity;

(2) right to issue any type of bond for the purposes for which the district is created or to pay the principal of and interest on a bond;

(3) right to impose an assessment or tax; or

(4) legality or operation.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.005. CONSTRUCTION OF CHAPTER. This chapter shall be liberally construed to achieve the legislative intent and purposes of Chapter 36, Water Code. A power granted by Chapter 36, Water Code, or this chapter shall be broadly interpreted to achieve that intent and those purposes.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

SUBCHAPTER B. DISTRICT CREATION

Sec. 8852.021. TEMPORARY DIRECTORS.

(a) The temporary board consists of:

(1) David Grall;

(2) Mauro Garcia;

(3) Robert Scott;

(4) A. C. Jones IV;

(5) Mario Martinez;

(6) Israel Hinojosa;

(7) a person appointed by the commissioners courts of Brooks and Jim Hogg Counties within 60 days of the effective date of this Act;

(8) Jesse Howell;

(9) Pearson Knolle; and

(10) Lawrence Cornelius.

(b) If there is a vacancy on the temporary board, the remaining temporary directors shall select a qualified person to fill the vacancy.

(c) Unless the temporary director's term expires under Subsection (d), a temporary director serves until the earlier of:

(1) the date the temporary director becomes an initial permanent director under Section 8852.024; or

(2) the date this chapter expires under Section 8852.003.

(d) The following temporary directors' terms expire on the date of the canvass of the election to confirm the creation of the district:

(1) David Grall and Mauro Garcia, if the voters in the territory described by Section 8852.023(a)(3) vote not to confirm the creation of the district;

(2) Robert Scott, if the voters in the territory described by Section 8852.023(a)(1) vote not to confirm the creation of the district;

(3) A. C. Jones IV and Mario Martinez, if the voters in the territory described by Section 8852.023(a)(5) vote not to confirm the creation of the district;

(4) Israel Hinojosa, if the voters in the territory described by Section 8852.023(a)(4) vote not to confirm the creation of the district;

(5) a person appointed by the commissioners courts of Brooks and Jim Hogg Counties, if the creation of the district is confirmed by voters of none of the territories described by Section 8852.023;

(6) Jesse Howell and Pearson Knolle, if the voters in the territory described by Section 8852.023(a)(6) vote not to confirm the creation of the district; and

(7) Lawrence Cornelius, if the voters in the territory described by Section 8852.023(a)(2) vote not to confirm the creation of the district.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.022. ORGANIZATIONAL MEETING OF TEMPORARY DIRECTORS. As soon as practicable after all the temporary directors have qualified under Section 36.055, Water Code, a majority of the temporary directors shall convene the organizational meeting of the district at a location within the district agreeable to a majority of the directors. If an agreement on location cannot be reached, the organizational meeting shall be at the Brooks County Courthouse.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.023. CONFIRMATION ELECTION.

(a) The temporary board shall hold an election in each of the following territories in the district to confirm the creation of the district and the imposition of a maintenance tax:

(1) the territory in the corporate limits of the city of Falfurrias as of January 1, 2009;

(2) the territory in the corporate limits of the city of Alice as of January 1, 2009;

(3) the territory:

(A) in Brooks County that, as of January 1, 2009, is:

(i) outside the corporate limits of the city of Falfurrias; and

(ii) not in the Kenedy County Groundwater Conservation District; and

(B) in Hidalgo County that is:

(i) described by a metes and bounds description in Section 2 of the Act creating this chapter; and

(ii) not in the Kenedy County Groundwater Conservation District as of January 1, 2009;

(4) the territory in the certificated retail water service area of the Jim Hogg County Water Control and Improvement District No. 2 as of January 1, 2009;

(5) the territory in Jim Hogg County that is outside the certificated retail water service area of the Jim Hogg County Water Control and Improvement District No. 2 as of January 1, 2009; and

(6) the territory in Jim Wells County that, as of January 1, 2009, is:

(A) outside the corporate limits of the city of Alice; and

(B) not in the Kenedy County Groundwater Conservation District.

(b) Section 41.001(a), Election Code, does not apply to a confirmation election held as provided by this section.

(c) Except as provided by this section, an election under this section must be conducted as provided by Sections 36.017(b), (c), and (e), Water Code, and the Election Code.

(d) The ballot for the election must be printed to provide for voting for or against the proposition: "The creation of the Brush Country Groundwater Conservation District and the levy of an ad valorem tax in the district at a rate not to exceed three cents for each $100 of assessed valuation."

(e) If the majority of voters in a territory described by Subsection (a) voting at an election held under this section vote to confirm the creation of the district, that territory is included in the district. If the majority of voters in a territory described by Subsection (a) voting at an election held under this section vote not to confirm the creation of the district, that territory is excluded from the district.

(f) If the majority of voters in any of the territories described by Subsection (a) voting at an election held under this section vote not to confirm the creation of the district, the temporary board or any successor board may hold a subsequent confirmation election in that territory.

(g) The district may not impose a maintenance tax unless the tax is confirmed under this section.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.024. INITIAL PERMANENT DIRECTORS.

(a) If the creation of the district is confirmed at an election held under Section 8852.023 in one or more territories in the district, each temporary director who

represents a territory that is included in the district becomes an initial permanent director of the district.

(b) The initial permanent directors shall draw lots to determine which directors serve a term expiring on June 1 of the first even-numbered year after the confirmation election and which directors serve a term expiring on June 1 of the next even-numbered year.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.025. GIFTS AND GRANTS. The temporary board may solicit and accept gifts and grants, including services, on the district's behalf from any public or private source to provide revenue for the district before a confirmation election is held under Section 8852.023.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.026. RIGHT OF CERTAIN LANDOWNERS TO WITHDRAW FROM DISTRICT. A person who owns a tract of land in Brooks or Hidalgo County that adjoins the boundaries of the Kenedy County Groundwater Conservation District as of the effective date of the Act creating this chapter may petition the Kenedy County Groundwater Conservation District for annexation into that district. Notwithstanding any other law, the Kenedy County Groundwater Conservation District may annex territory described by a petition under this section. Territory annexed by the Kenedy County Groundwater Conservation District under this section not later than January 1, 2010, is disannexed at that time from the district created by this chapter.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.027. LIMITATION OF POWERS OF TEMPORARY BOARD.

(a) The temporary board may exercise only the powers described by Sections 8852.022, 8852.023, and 8852.025.

(b) Except as required by a law or rule relating to participation in a groundwater management area in which the district is located, the temporary board may not:

(1) adopt rules, including rules regarding wells; or

(2) develop a draft or final management plan.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

SUBCHAPTER C. BOARD OF DIRECTORS

Sec. 8852.051. APPOINTMENT OF DIRECTORS; TERMS.

(a) Not later than June 1 of each even-numbered year, the Commissioners Courts of Brooks County, Jim Hogg County, and Jim Wells County shall appoint directors as follows:

(1) the Commissioners Court of Brooks County shall appoint:

(A) one director who represents the municipal interests of the territory described by Section 8852.023(a)(1), if the territory described by Section 8852.023(a)(1) is included in the district; and

(B) two directors who represent the agricultural interests of the territory described by Sections 8852.023(a)(3)(A) and (B), if the territory described by Sections 8852.023(a)(3)(A) and (B) is included in the district;

(2) the Commissioners Court of Jim Hogg County shall appoint:

(A) one director who represents the interests of Jim Hogg County in the territory described by Section 8852.023(a)(4), if the territory described by Section 8852.023(a)(4) is included in the district; and

(B) two directors who represent the agricultural interests of the territory described by Section 8852.023(a)(5), if the territory described by Section 8852.023(a)(5) is included in the district;

(3) the Commissioners Court of Jim Wells County shall appoint:

(A) one director who represents the municipal interests of the territory described by Section 8852.023(a)(2), if the territory described by Section 8852.023(a)(2) is included in the district; and

(B) two directors who represent the agricultural interests of the territory described by Section 8852.023(a)(6), if the territory described by Section 8852.023(a)(6) is included in the district; and

(4) the Commissioners Courts of Brooks County and Jim Hogg County jointly shall appoint one director to represent the industrial and mining interests of Jim Hogg and Brooks Counties.

(b) Directors serve staggered four-year terms that expire on June 1 of an even-numbered year.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.052. ELIGIBILITY.

(a) A director is not disqualified from service because the director is an employee, manager, director of the board, or officer of a groundwater producer that is or may be regulated by the district.

(b) A temporary director whose term of office expires under Section 8852.021(d) is not eligible for appointment as a director.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.053. COMPENSATION; REIMBURSEMENT.

(a) Notwithstanding Section 36.060, Water Code, a director is not entitled to receive compensation for performing the duties of a director.

(b) A director is entitled to receive reimbursement for the director's reasonable expenses incurred while engaging in activities on behalf of the district in accordance with Sections 36.060(b) and (c), Water Code.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.054. VACANCY. A vacancy in the office of director shall be filled by appointment of the board in a manner consistent with the representational requirements of Section 8852.051. The appointed director serves only for the remainder of the unexpired term to which the director was appointed.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

SUBCHAPTER D. POWERS AND DUTIES

Sec. 8852.101. GROUNDWATER CONSERVATION DISTRICT POWERS AND DUTIES. Except as otherwise provided by this chapter, the district has the powers and duties provided by the general law of this state, including Chapter 36, Water Code, and Section 59, Article XVI, Texas Constitution, applicable to groundwater conservation districts.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.102. CONTRACTS. The district may enter into a contract with any person, public or private, for any purpose authorized by law.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.103. EXEMPTIONS FROM PERMIT REQUIREMENTS.

(a) Section 36.117, Water Code, applies to the district except that for the purposes of applying that section to the district, "domestic use" and "livestock use" have the meanings assigned by Subsection (b).

(b) In this section:

(1) "Domestic use":

(A) means the use of groundwater by an individual or a household to support domestic activities, including the use of groundwater for:

(i) drinking, washing, or culinary purposes;

(ii) irrigating a lawn or a family garden or orchard;

(iii) watering domestic animals; or

(iv) water recreation, including aquatic and wildlife enjoyment; and

(B) does not include the use of water:

(i) to support an activity for which consideration is given or received or for which the product of the activity is sold; or

(ii) by or for a public water system.

(2) "Livestock use" means the use of groundwater for the open-range watering of livestock, exotic livestock, game animals, or fur-bearing animals. For

purposes of this subdivision, "livestock" and "exotic livestock" have the meanings assigned by Sections 1.003 and 142.001, Agriculture Code, respectively, and "game animal" and "fur-bearing animal" have the meanings assigned by Sections 63.001 and 71.001, Parks and Wildlife Code, respectively. Livestock use does not include use by or for a public water system.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.104. EFFECTS OF TRANSFER.

(a) In reviewing a proposed transfer of groundwater out of the district in accordance with Section 36.122(f), Water Code, the district shall determine whether the proposed transfer would have a negative effect on:
  (1) the availability of water in the district;
  (2) the conditions of any aquifer that overlies the district;
  (3) subsidence in the district;
  (4) existing permit holders or other groundwater users in the district; and
  (5) any applicable approved regional water plan or certified district management plan.

(b) If the district determines under Subsection (a) that the transfer would have a negative effect, the district may, in addition to the conditions authorized by Section 36.122, Water Code, impose other requirements or limitations on the permit that are designed to minimize the effect.

(c) Sections 36.122(c), (i), and (j), Water Code, do not apply to a requirement or limitation imposed under this section.

(d) The district may impose a fee or surcharge as an export fee. The restrictions under Section 36.122(e), Water Code, do not apply to a fee or surcharge imposed under this subsection.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.105. APPLICABILITY OF DISTRICT REGULATIONS. Groundwater regulations adopted by the district under this chapter apply to all persons except as exempted under Section 36.117, Water Code, or this chapter.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.106. NO EMINENT DOMAIN POWER. The district may not exercise the power of eminent domain.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.107. LANDOWNERS' RIGHTS. The rights of landowners and their lessees and assigns in groundwater in the district are recognized. Nothing in this chapter shall be construed to deprive or divest the owners or their lessees and assigns of their rights, subject to district rules.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.108. LIMITATION ON RULEMAKING POWER NOT APPLICABLE. Section 36.121, Water Code, does not apply to the district.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

SUBCHAPTER E. GENERAL FINANCIAL PROVISIONS

Sec. 8852.151. REVENUE. To pay the maintenance and operating costs of the district and to pay any bonds or notes issued by the district, the district may impose ad valorem taxes at a rate not to exceed three cents on each $100 of assessed valuation of taxable property in the district.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.152. GRANTS, GIFTS, AND DONATIONS. The district may solicit and accept grants, gifts, and donations from any public or private source.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

SUBCHAPTER F. DISSOLUTION

Sec. 8852.201. SUBCHAPTER CUMULATIVE. The provisions of this subchapter are cumulative of the provisions of Subchapter I, Chapter 36, Water Code.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.202. DISSOLUTION BY ELECTION.

(a) After January 1, 2016, the board shall order an election on the question of dissolving the district if the board receives a petition requesting that an election be held for that purpose that is signed by at least 15 percent of the district's registered voters.

(b) Not later than the 30th day after the date the board receives the petition, the directors shall:

(1) validate the signatures on the petition; and

(2) if the signatures are validated, order an election on the next uniform election date under Section 41.001, Election Code.

(c) The order calling the election must state the nature of the election, including the proposition that is to appear on the ballot.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.203. NOTICE OF ELECTION. Notice of an election under this subchapter must be provided by posting a copy of the order calling the election in at least one conspicuous place for at least 10 days before the day of the election at the county courthouse in Brooks County, Jim Hogg County, Jim Wells County, and Hidalgo County.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.204. BALLOT. The ballot for an election under this subchapter must be printed to permit voting for or against the proposition: "The dissolution of the Brush Country Groundwater Conservation District."

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

Sec. 8852.205. ELECTION RESULTS; DISPOSITION OF ASSETS. If a majority of the votes in an election under this subchapter favor dissolution:

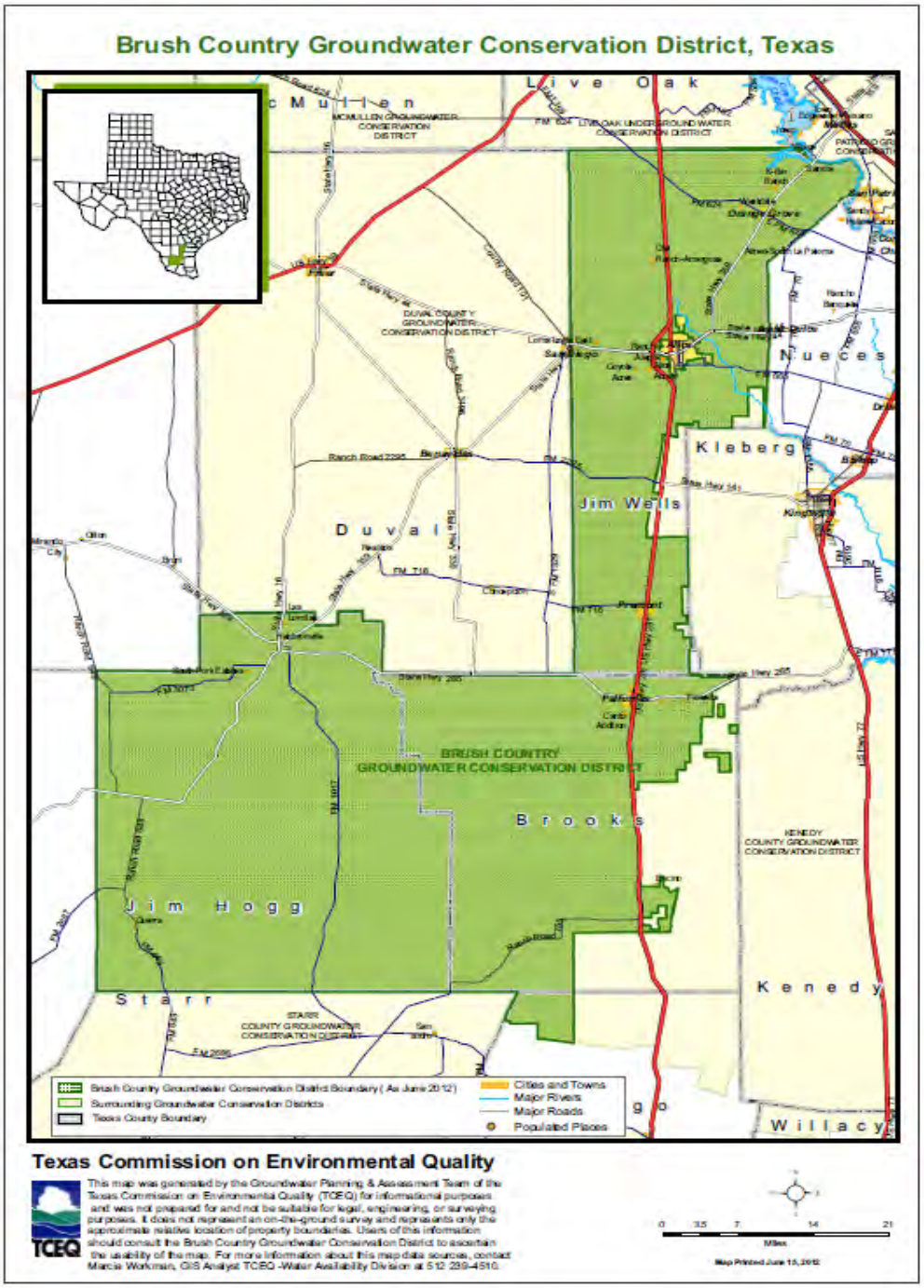
(1) the board shall find that the district is dissolved; and

(2) Section 36.310, Water Code, applies for the purpose of disposition of the district's assets.

Added by Acts 2009, 81st Leg., R.S., Ch. 1396, Sec. 1, eff. June 19, 2009.

APPENDIX B

MAP OF BRUSH COUNTRY GCD



APPENDIX C

NOTICES OF PUBLIC HEARINGS AND MEETINGS OF BRUSH COUNTRY GCD

[TO BE INSERTED]

APPENDIX D

RESOLUTION ADOPTING MANAGEMENT PLAN

[TO BE INSERTED]

APPENDIX E

SAMPLE LETTER AND ENTITIES NOTIFIED AND EVIDENCE OF COORDINATION WITH SURFACE WATER MANAGEMENT ENTITIES

[TO BE INSERTED]

APPENDIX F

GMA 16 ADOPTION RESOLUTION FOR DFC

RESOLUTION TO ADOPT DESIRED FUTURE CONDITIONS

FOR GROUNDWATER MANAGEMENT AREA 16 AQUIFERS

STATE OF TEXAS RESOLUTION # 2017-01

GROUNDWATER MANAGEMENT AREA 16

WHEREAS, Texas Water Code 36.108 requires the Groundwater Conservation Districts located whole or in part in a Groundwater Management Area ("GMA") designated by the Texas Water Development Board to adopt desired future conditions for the relevant aquifers located within the management area;

WHEREAS, the Groundwater Conservation Districts located wholly or partially within Groundwater Management Area 16 ("GMA 16"), as designated by the Texas Water Development Board, as of the date of this resolution are as follows: Bee Groundwater Conservation District, Kenedy County Groundwater Conservation District, Brush Country Groundwater Conservation District, Duval County Groundwater Conservation District, Starr County Groundwater Conservation District, Corpus Christi Aquifer Storage and Recovery Conservation District, Live Oak Underground Water Conservation District, Red Sands Groundwater Conservation District, McMullen Groundwater Conservation District, and San Patricio County Groundwater Conservation District (collectively referred to as "Member Districts");

WHEREAS, the Board Presidents or their Designated Representatives of districts in GMA 16 have met at various meetings and conducted joint planning in accordance with Chapter 36.108, Texas Water Code since 2011and;

WHEREAS, Section 36.108 of the Texas Water Code requires the Member Districts in GMA 16 to consider groundwater availability models and other data or information for the management area and vote on a proposal for adoption of DFC's for each relevant aquifer within GMA 16 by May 1, 2016, which GMA Member Districts accomplished on October 28, 2015, and;

WHEREAS, GMA 16, having given proper and timely notice, held an open meeting of the GMA 16 Member Districts on January 17, 2017 and;

WHEREAS, GMA 16 has solicited and considered public comment at specially called Public Meeting, including the meeting on January 17, 2017 and ;

WHEREAS, the GMA 16 Member Districts received and considered technical advice regarding local aquifers, hydrology, geology, recharge characteristics, local groundwater

demands and usage, population projections, ground and surface water inter-relationships, and other considerations that affect groundwater conditions and;

WHEREAS, in developing the proposed DFC's for the relevant aquifers within GMA 16, the Member Districts considered the nine statutory factors set forth in Section 36.108 (d) of the Texas Water Code and ;

WHEREAS, pursuant to Section 36.108(d-2) of the Texas Water Code the Member Districts also considered in the development of the proposed DFC's the balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in GMA 16 and;

WHEREAS, following public discussion and due consideration of the current and future needs and conditions of the aquifers in question, the current and projected groundwater demands, and the potential effects on springs, surface water, habitat, and water dependent species through the year 2060, GMA 16 Member Districts have analyzed drawdown estimations from numerous pumping scenarios using the Lower Gulf Coast Groundwater Availability Model and have voted on a motion made and seconded to adopt a Desired Future Condition (DFC) stated as follows:

> Groundwater Management Area 16 adopts Desired Future Conditions for each county within the groundwater management area (county-specific DFC's) and adopts a Desired Future Condition for the counties in the groundwater management area (gma-specific DFC's). The Desired Future Condition for the counties in the groundwater management area shall not exceed an average drawdown of 62 feet for the Gulf Coast Aquifer System at December 2060. Desired Future Conditions for each county within the groundwater management area (county-specific DFC's) shall not exceed the values specified in Table A-1 at December 2060.
>
> Table A-1: Desired Future Conditions for GMA 16 expressed as an Average Drawdown between January 2000 and December 2069.
>
> Bee GCD: 76 feet of drawdown of the Gulf Coast Aquifer System;
>
> Live Oak UWCD: 34 feet of drawdown of the Gulf Coast Aquifer System;
>
> McMullen GCD: 9 feet of drawdown of the Gulf Coast Aquifer System;
>
> Red Sands GCD: 40 feet of drawdown of the Gulf Coast Aquifer System;
>
> Kenedy County GCD: 40 feet of drawdown of the Gulf Coast Aquifer System;

Brush Country GCD: 69 feet of drawdown of the Gulf Coast Aquifer System;

Duval County GCD: 104 feet of drawdown of the Gulf Coast Aquifer System;

San Patricio County GCD: 48 feet of drawdown of the Gulf Coast Aquifer System;

Starr County GCD: 69 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Cameron: 70 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Hidalgo: 118 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Kleberg: 28 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Nueces: 21 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Webb: 113 feet of drawdown of the Gulf Coast Aquifer System;

Non-District Willacy: 40 feet of drawdown of the Gulf Coast Aquifer System.

WHEREAS, the GMA 16 Member Districts evaluated and determined that the Yegua-Jackson Aquifer in Jim Hogg, Duval, Live Oak, and Starr Counties and the Carrizo-Wilcox Aquifer in Bee, Live Oak, and McMullen Counties are not relevant for planning purposes within GMA 16 and no DFC is required.

NOW THEREFORE BE IT RESOLVED, that the Groundwater Management Area 16 Member Districts do hereby document, record and confirm a Desired Future Condition stated above was adopted by all member districts present.

AND IT IS SO ORDERD.

PASSED AND ADOPTED on this 17th day of January 2017.

ATTEST:

Lonnie Stewart

Bee Groundwater Conservation District

Live Oak Underground Water Conservation District

Lonnie Stewart

McMullen Groundwater Conservation District

Amanda Vela

Red Sands Groundwater Conservation District

Andy Sarge

Kenedy County Groundwater Conservation District

Corpus Christi Aquifer Storage and Recovery Conservation District

D. J. Kelly

Brush Country Groundwater Conservation District

Duval County Groundwater Conservation District

San Patricio County Groundwater Conservation District

Starr County Groundwater Conservation District

APPENDIX G

BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT RESOLUTION ADOPTING DFC

BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT

A RESOLUTION OF THE BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT ADOPTING DESIRED FUTURE CONDITIONS

WHEREAS, the District is authorized by Chapter 36, Texas Water Code, to engage in joint planning activities for the coordinated management of the aquifers located in Groundwater Management Area 16 ("GMA 16"), and in that regard, shall establish desired future conditions ("DFCs") for the relevant aquifers within GMA 16; and

WHEREAS, GMA 16 took such action to adopt DFCs on January 17, 2017 by Resolution with a vote of nine in favor, none against and one absent to exceed the two-thirds approval criteria; and

WHEREAS, GMA 16 submitted a DFC explanatory report to the TWDB on April 4, 2017; and

WHEREAS, the TWDB declared the GMA 16 submittals administratively complete by letter dated April 19, 2017; and

WHEREAS, the District is required to adopt DFCs by resolution following the GMA submissions and the TWDB finding of administrative completeness; and

NOW, THEREFORE, BE IT RESOLVED by the District that the following DFCs are each hereby established:

The District adopts DFCs for each county within District (county-specific DFCs) and adopts a DFC for all the counties in the groundwater management area (GMA-specific DFC). The DFC for the counties in GMA 16 shall not exceed an average drawdown of 62 feet for the Gulf Coast Aquifer System in December 2060. DFCs for the Gulf Coast Aquifer in each county within the District (county-specific DFCs) shall not exceed the values specified below by the year 2060.

GCD or Region	Simulated Drawdown (ft) 2010-2060				
	Chicot	Evangeline	Burkeville	Jasper	Combined
Bee GCD	106	84	73	60	76
Live Oak UWCD	79	64	60	19	34
McMullen GCD	0	0	0	9	9
Red Sands GCD	38	41	40	39	40
Kenedy County GCD	15	104	21	21	40
Brush Country GCD	47	76	68	69	69
Duval County GCD	78	133	95	85	104
San Patricio County GCD	88	60	23	22	48

Starr County GCD	0	83	74	55	69
Non-district Cameron	62	122	48	48	70
Non-district Hidalgo	143	151	96	94	118
Non-district Kleberg	7	85	10	9	28
Non-district Nueces	22	39	11	11	21
Non-district Webb	0	151	0	71	113
Non-district Willacy	28	85	23	23	40
GMA 16	47	97	49	49	62

AND IT IS SO ORDERED, PASSED AND ADOPTED ON THIS THE 26 DAY OF SEPTEMBER 2017.

BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT

David Kelly, President

ATTEST:

Robert Scott, Secretary

APPENDIX H

Estimated Historical Groundwater Use And 2017 State Water Plan Datasets:

Brush Country Groundwater Conservation District

by Stephen Allen
Texas Water Development Board
Groundwater Division
Groundwater Technical Assistance Section
stephen.allen@twdb.texas.gov
(512) 463-7317
October 3, 2017

GROUNDWATER MANAGEMENT PLAN DATA:

This package of water data reports (part 1 of a 2-part package of information) is being provided to groundwater conservation districts to help them meet the requirements for approval of their five-year groundwater management plan. Each report in the package addresses a specific numbered requirement in the Texas Water Development Board's groundwater management plan checklist. The checklist can be viewed and downloaded from this web address:

http://www.twdb.texas.gov/groundwater/docs/GCD/GMPChecklist0113.pdf

The five reports included in this part are:

1. Estimated Historical Groundwater Use (checklist item 2)

   from the TWDB Historical Water Use Survey (WUS)
2. Projected Surface Water Supplies (checklist item 6)
3. Projected Water Demands (checklist item 7)
4. Projected Water Supply Needs (checklist item 8)
5. Projected Water Management Strategies (checklist item 9)

   from the 2017 Texas State Water Plan (SWP)

Part 2 of the 2-part package is the groundwater availability model (GAM) report for the District (checklist items 3 through 5). The District should have received, or will receive, this report from the Groundwater Availability Modeling Section. Questions about the GAM can be directed to Dr. Shirley Wade, shirley.wade@twdb.texas.gov, (512) 936-0883.

DISCLAIMER:

The data presented in this report represents the most up-to-date WUS and 2017 SWP data available as of 10/3/2017. Although it does not happen frequently, either of these datasets are subject to change pending the availability of more accurate WUS data or an amendment to the 2017 SWP. District personnel must review these datasets and correct any discrepancies in order to ensure approval of their groundwater management plan.

The WUS dataset can be verified at this web address:

http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/

The 2017 SWP dataset can be verified by contacting Sabrina Anderson (sabrina.anderson@twdb.texas.gov or 512-936-0886).

The values presented in the data tables of this report are county-based. In cases where groundwater conservation districts cover only a portion of one or more counties the data values are modified with an apportioning multiplier to create new values that more accurately represent conditions within district boundaries. The multiplier used in the following formula is a land area ratio: (data value * (land area of district in county / land area of county)). For two of the four SWP tables (Projected Surface Water Supplies and Projected Water Demands) only the county-wide water user group (WUG) data values (county other, manufacturing, steam electric power, irrigation, mining and livestock) are modified using the multiplier. WUG values for municipalities, water supply corporations, and utility districts are not apportioned; instead, their full values are retained when they are located within the district, and eliminated when they are located outside (we ask each district to identify these entity locations).

The remaining SWP tables (Projected Water Supply Needs and Projected Water Management Strategies) are not modified because district-specific values are not statutorily required. Each district needs only "consider" the county values in these tables.

In the WUS table every category of water use (including municipal) is apportioned. Staff determined that breaking down the annual municipal values into individual WUGs was too complex.

TWDB recognizes that the apportioning formula used is not perfect but it is the best available process with respect to time and staffing constraints. If a district believes it has data that is more accurate it can add those data to the plan with an explanation of how the data were derived. Apportioning percentages that the TWDB used are listed above each applicable table.

For additional questions regarding this data, please contact Stephen Allen (stephen.allen@twdb.texas.gov or 512-463-7317) or Rima Petrossian (rima.petrossian@twdb.texas.gov or 512-936-2420).

Estimated Historical Water Use
TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water historical use estimates are currently unavailable for calendar year 2016. TWDB staff anticipates the calculation and posting of these estimates at a later date.

BROOKS COUNTY *72.01% (multiplier)* All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	973	0	0	0	168	243	1,384
	SW	0	0	0	0	0	131	131
2014	GW	1,135	0	9	0	289	238	1,671
	SW	0	0	2	0	0	128	130
2013	GW	1,144	1	5	0	534	240	1,924
	SW	0	0	1	0	0	130	131
2012	GW	1,314	0	11	0	541	184	2,050
	SW	0	0	1	0	0	99	100
2011	GW	1,401	0	122	0	836	210	2,569
	SW	0	0	107	0	0	113	220
2010	GW	1,326	0	128	0	578	210	2,242
	SW	0	0	112	0	0	113	225
2009	GW	1,579	1	126	0	1,740	252	3,698
	SW	0	0	111	0	0	136	247
2008	GW	1,291	1	125	0	471	236	2,124
	SW	0	0	109	0	0	127	236
2007	GW	1,181	1	0	0	225	307	1,714
	SW	0	0	0	0	0	166	166
2006	GW	1,307	1	0	0	406	323	2,037
	SW	0	0	0	0	0	174	174
2005	GW	1,255	1	0	0	452	331	2,039
	SW	0	0	0	0	0	178	178
2004	GW	1,143	1	0	0	450	51	1,645
	SW	0	0	0	0	0	457	457
2003	GW	1,174	1	0	0	513	44	1,732
	SW	0	0	0	0	0	391	391
2002	GW	1,301	1	0	0	175	53	1,530
	SW	0	0	0	0	0	478	478
2001	GW	1,397	0	0	0	18	105	1,520
	SW	0	0	0	0	0	940	940
2000	GW	1,415	0	0	0	18	54	1,487
	SW	0	0	0	0	0	484	484

HIDALGO COUNTY

1.61% (multiplier)

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	202	0	10	9	2	4	227
	SW	1,578	43	0	77	4,023	7	5,728
2014	GW	226	0	11	0	9	4	250
	SW	1,716	30	0	0	6,598	7	8,351
2013	GW	207	0	11	0	1	4	223
	SW	1,840	29	0	2	4,870	7	6,748
2012	GW	198	0	11	0	4	4	217
	SW	1,821	27	0	4	7,970	7	9,829
2011	GW	212	0	17	0	0	6	235
	SW	1,890	30	14	3	11,088	9	13,034
2010	GW	141	0	19	0	0	5	165
	SW	1,530	36	16	0	6,521	8	8,111
2009	GW	152	0	29	0	25	6	212
	SW	1,836	35	15	5	9,903	9	11,803
2008	GW	115	0	20	0	1	6	142
	SW	1,750	36	19	0	9,829	8	11,642
2007	GW	87	0	12	0	18	5	122
	SW	1,512	41	0	18	8,350	8	9,929
2006	GW	85	0	12	0	17	5	119
	SW	1,667	38	0	15	8,523	8	10,251
2005	GW	83	0	12	19	27	5	146
	SW	1,969	39	0	7	8,239	8	10,262
2004	GW	66	0	12	18	24	3	123
	SW	1,697	36	0	19	5,028	6	6,786
2003	GW	54	0	12	36	32	4	138
	SW	1,673	36	2	1	4,478	6	6,196
2002	GW	58	0	12	24	55	3	152
	SW	1,233	39	8	4	5,494	5	6,783
2001	GW	57	0	12	30	60	4	163
	SW	1,308	38	8	11	6,265	6	7,636
2000	GW	76	1	12	29	72	4	194
	SW	1,225	35	9	2	5,976	6	7,253

JIM HOGG COUNTY

100% (multiplier)

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	810	0	42	0	80	400	1,332
	SW	0	0	1	0	0	44	45
2014	GW	877	1	45	0	80	389	1,392
	SW	0	0	0	0	0	43	43
2013	GW	993	1	75	0	120	402	1,591
	SW	0	0	1	0	0	44	45
2012	GW	994	1	92	0	292	276	1,655
	SW	0	0	1	0	0	31	32
2011	GW	169	1	95	0	360	310	935
	SW	0	0	18	0	0	35	53
2010	GW	156	2	119	0	250	317	844
	SW	0	0	26	0	0	35	61
2009	GW	947	3	100	0	0	378	1,428
	SW	0	0	13	0	0	42	55
2008	GW	907	3	76	0	563	346	1,895
	SW	0	0	0	0	0	40	40
2007	GW	900	2	20	0	417	423	1,762
	SW	0	0	0	0	0	47	47
2006	GW	914	2	30	0	500	408	1,854
	SW	0	0	0	0	0	45	45
2005	GW	909	1	0	0	500	407	1,817
	SW	0	0	0	0	0	45	45
2004	GW	906	2	0	0	500	34	1,442
	SW	0	0	0	0	0	512	512
2003	GW	909	0	0	0	500	35	1,444
	SW	0	0	0	0	0	544	544
2002	GW	899	0	0	0	758	27	1,684
	SW	0	0	0	0	0	418	418
2001	GW	1,000	0	0	0	758	78	1,836
	SW	0	0	0	0	0	1,195	1,195
2000	GW	922	0	0	0	817	51	1,790
	SW	0	0	0	0	0	466	466

JIM WELLS COUNTY

93.44% (multiplier)

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	1,364	74	0	0	1,233	440	3,111
	SW	3,450	0	0	0	195	294	3,939
2014	GW	1,734	70	5	0	1,176	423	3,408
	SW	3,882	0	1	0	93	282	4,258
2013	GW	1,951	74	0	0	1,476	420	3,921
	SW	4,065	0	0	0	311	281	4,657
2012	GW	2,450	74	0	0	1,035	400	3,959
	SW	4,295	0	0	0	389	267	4,951
2011	GW	2,724	74	13	0	1,174	654	4,639
	SW	4,367	0	21	0	444	435	5,267
2010	GW	2,089	74	18	0	1,357	629	4,167
	SW	3,697	0	28	0	114	419	4,258
2009	GW	2,182	105	0	0	1,812	585	4,684
	SW	6,885	0	0	0	323	391	7,599
2008	GW	2,086	115	0	0	1,429	553	4,183
	SW	6,431	0	0	0	303	368	7,102
2007	GW	1,850	115	0	0	1,974	582	4,521
	SW	3,865	0	0	0	186	389	4,440
2006	GW	2,265	115	0	0	3,569	570	6,519
	SW	5,224	0	0	0	0	380	5,604
2005	GW	2,219	105	0	0	3,203	594	6,121
	SW	6,681	0	0	0	234	396	7,311
2004	GW	1,974	105	0	0	3,208	73	5,360
	SW	2,941	0	0	0	232	939	4,112
2003	GW	1,958	92	0	0	2,914	76	5,040
	SW	3,504	0	0	0	219	982	4,705
2002	GW	2,128	92	0	0	2,500	73	4,793
	SW	4,048	0	0	0	51	948	5,047
2001	GW	2,324	181	0	0	2,120	48	4,673
	SW	4,962	0	0	0	43	611	5,616
2000	GW	2,326	106	0	0	3,405	99	5,936
	SW	5,512	0	0	0	80	895	6,487

Projected Surface Water Supplies
TWDB 2017 State Water Plan Data

BROOKS COUNTY

72.01% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
N	LIVESTOCK, BROOKS	NUECES-RIO GRANDE	NUECES-RIO GRANDE LIVESTOCK LOCAL SUPPLY	115	115	115	115	115	115
	Sum of Projected Surface Water Supplies (acre-feet)			**115**	**115**	**115**	**115**	**115**	**115**

HIDALGO COUNTY

1.61% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
M	AGUA SUD	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	4,257	4,260	4,261	4,261	4,264	4,264
M	AGUA SUD	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	559	559	560	560	559	560
M	ALAMO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1,603	1,603	1,603	1,603	1,603	1,603
M	ALTON	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1,286	1,286	1,286	1,286	1,286	1,286
M	COUNTY-OTHER, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	52	52	52	52	52	52
M	COUNTY-OTHER, HIDALGO	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1	1	1	1	1	1
M	DONNA	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	2,975	2,975	2,975	2,975	2,975	2,975
M	EDCOUCH	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	330	330	330	330	330	330
M	EDINBURG	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	9,046	9,046	9,046	9,046	9,046	9,046
M	ELSA	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	910	909	909	909	908	908
M	HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	12	12	12	12	12	12
M	HIDALGO	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1	1	1	1	1	1

Projected Surface Water Supplies
TWDB 2017 State Water Plan Data

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
M	HIDALGO COUNTY MUD #1	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	272	272	272	272	272	272
M	IRRIGATION, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	3,729	3,722	3,714	3,707	3,699	3,692
M	IRRIGATION, HIDALGO	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	155	155	155	154	154	154
M	LA JOYA	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	439	439	439	439	439	439
M	LA JOYA	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	117	117	117	117	117	117
M	LA VILLA	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	246	246	246	246	246	246
M	LIVESTOCK, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	16	16	16	16	16	16
M	LIVESTOCK, HIDALGO	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	2	2	2	2	2	2
M	MANUFACTURING, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	19	19	19	19	19	19
M	MCALLEN	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	28,196	28,196	28,196	28,196	28,196	28,196
M	MERCEDES	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1,287	1,287	1,287	1,287	1,287	1,287
M	MILITARY HIGHWAY WSC	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	319	329	338	343	346	348
M	MILITARY HIGHWAY WSC	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	12	12	13	13	13	13
M	MINING, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	12	12	12	12	12	12
M	MINING, HIDALGO	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	1	1	1	1	1	1
M	MISSION	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	12,099	12,099	12,099	12,099	12,099	12,099
M	MISSION	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	7	7	7	7	7	7

Projected Surface Water Supplies
TWDB 2017 State Water Plan Data

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
M	NORTH ALAMO WSC	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	14,003	14,057	14,094	14,120	14,141	14,155
M	PALMHURST	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	578	578	578	578	578	578
M	PALMVIEW	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	640	640	640	640	640	640
M	PENITAS	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	520	520	520	520	520	520
M	PHARR	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	6,739	6,739	6,739	6,739	6,739	6,739
M	PHARR	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	2	2	2	2	2	2
M	PROGRESO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	127	127	127	127	127	127
M	SAN JUAN	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	3,167	3,167	3,167	3,167	3,167	3,167
M	SHARYLAND WSC	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	4,985	4,985	4,985	4,985	4,985	4,985
M	STEAM ELECTRIC POWER, HIDALGO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	44	44	44	44	44	44
M	SULLIVAN CITY	RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	469	469	469	469	469	469
M	WESLACO	NUECES-RIO GRANDE	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM	3,745	3,745	3,745	3,745	3,745	3,745
	Sum of Projected Surface Water Supplies (acre-feet)			**102,979**	**103,038**	**103,079**	**103,102**	**103,119**	**103,129**

JIM HOGG COUNTY

100% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
M	LIVESTOCK, JIM HOGG	NUECES-RIO GRANDE	LIVESTOCK LOCAL SUPPLY	222	222	222	222	222	222
M	LIVESTOCK, JIM HOGG	RIO GRANDE	LIVESTOCK LOCAL SUPPLY	49	49	49	49	49	49
	Sum of Projected Surface Water Supplies (acre-feet)			**271**	**271**	**271**	**271**	**271**	**271**

Projected Surface Water Supplies
TWDB 2017 State Water Plan Data

JIM WELLS COUNTY *93.44% (multiplier)* All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
N	ALICE	NUECES-RIO GRANDE	CORPUS CHRISTI-CHOKE CANYON LAKE/RESERVOIR SYSTEM	2,096	2,212	2,321	2,456	2,587	2,710
N	ALICE	NUECES-RIO GRANDE	TEXANA LAKE/RESERVOIR	2,096	2,213	2,322	2,456	2,588	2,711
N	LIVESTOCK, JIM WELLS	NUECES	NUECES LIVESTOCK LOCAL SUPPLY	58	58	58	58	58	58
N	LIVESTOCK, JIM WELLS	NUECES-RIO GRANDE	NUECES-RIO GRANDE LIVESTOCK LOCAL SUPPLY	318	318	318	318	318	318
	Sum of Projected Surface Water Supplies (acre-feet)			**4,568**	**4,801**	**5,019**	**5,288**	**5,551**	**5,797**

Projected Water Demands
TWDB 2017 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

BROOKS COUNTY

72.01% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
N	COUNTY-OTHER, BROOKS	NUECES-RIO GRANDE	235	250	266	286	305	323
N	FALFURRIAS	NUECES-RIO GRANDE	1,677	1,712	1,755	1,813	1,865	1,915
N	IRRIGATION, BROOKS	NUECES-RIO GRANDE	1,296	1,361	1,429	1,501	1,576	1,654
N	LIVESTOCK, BROOKS	NUECES-RIO GRANDE	446	446	446	446	446	446
N	MINING, BROOKS	NUECES-RIO GRANDE	257	259	245	233	222	215
	Sum of Projected Water Demands (acre-feet)		**3,911**	**4,028**	**4,141**	**4,279**	**4,414**	**4,553**

HIDALGO COUNTY

1.61% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	AGUA SUD	NUECES-RIO GRANDE	4,941	5,954	7,005	8,090	9,206	10,300
M	AGUA SUD	RIO GRANDE	649	782	920	1,062	1,208	1,352
M	ALAMO	NUECES-RIO GRANDE	3,231	3,909	4,607	5,326	6,064	6,787
M	ALTON	NUECES-RIO GRANDE	2,071	2,524	2,990	3,464	3,943	4,413
M	COUNTY-OTHER, HIDALGO	NUECES-RIO GRANDE	78	95	113	132	150	168
M	COUNTY-OTHER, HIDALGO	RIO GRANDE	2	3	3	3	4	4
M	DONNA	NUECES-RIO GRANDE	2,610	3,126	3,660	4,219	4,802	5,375
M	EDCOUCH	NUECES-RIO GRANDE	358	419	484	554	630	705
M	EDINBURG	NUECES-RIO GRANDE	13,113	15,899	18,772	21,714	24,721	27,667
M	ELSA	NUECES-RIO GRANDE	811	963	1,121	1,289	1,466	1,641
M	HIDALGO	NUECES-RIO GRANDE	1,842	2,233	2,637	3,051	3,473	3,887
M	HIDALGO	RIO GRANDE	17	21	25	28	32	36
M	HIDALGO COUNTY MUD #1	NUECES-RIO GRANDE	570	682	801	923	1,049	1,174
M	IRRIGATION, HIDALGO	NUECES-RIO GRANDE	9,887	9,424	8,925	8,359	7,768	7,768
M	IRRIGATION, HIDALGO	RIO GRANDE	412	393	372	348	324	324
M	LA JOYA	NUECES-RIO GRANDE	515	619	726	838	954	1,068
M	LA JOYA	RIO GRANDE	137	164	193	222	253	283
M	LA VILLA	NUECES-RIO GRANDE	275	328	385	443	504	564
M	LIVESTOCK, HIDALGO	NUECES-RIO GRANDE	12	12	12	12	12	12
M	LIVESTOCK, HIDALGO	RIO GRANDE	1	1	1	1	1	1
M	MANUFACTURING, HIDALGO	NUECES-RIO GRANDE	88	95	102	109	117	126
M	MCALLEN	NUECES-RIO GRANDE	38,728	47,219	55,875	64,722	73,748	82,563

Projected Water Demands
TWDB 2017 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	MERCEDES	NUECES-RIO GRANDE	2,223	2,648	3,091	3,558	4,049	4,531
M	MILITARY HIGHWAY WSC	NUECES-RIO GRANDE	1,780	2,157	2,542	2,938	3,345	3,745
M	MILITARY HIGHWAY WSC	RIO GRANDE	61	74	87	101	115	128
M	MINING, HIDALGO	NUECES-RIO GRANDE	42	54	63	72	83	96
M	MINING, HIDALGO	RIO GRANDE	3	4	5	6	7	8
M	MISSION	NUECES-RIO GRANDE	20,201	24,690	29,274	33,935	38,662	43,281
M	MISSION	RIO GRANDE	11	14	16	19	22	24
M	NORTH ALAMO WSC	NUECES-RIO GRANDE	24,015	29,240	34,598	40,064	45,625	51,069
M	PALMHURST	NUECES-RIO GRANDE	932	1,149	1,369	1,591	1,813	2,030
M	PALMVIEW	NUECES-RIO GRANDE	743	897	1,056	1,220	1,388	1,554
M	PENITAS	NUECES-RIO GRANDE	603	732	865	1,001	1,139	1,275
M	PHARR	NUECES-RIO GRANDE	9,920	11,929	14,017	16,178	18,410	20,601
M	PHARR	RIO GRANDE	3	4	4	5	5	6
M	PROGRESO	NUECES-RIO GRANDE	722	868	1,020	1,177	1,339	1,498
M	SAN JUAN	NUECES-RIO GRANDE	6,152	7,448	8,782	10,154	11,561	12,940
M	SHARYLAND WSC	NUECES-RIO GRANDE	8,026	9,722	11,460	13,252	15,094	16,896
M	STEAM ELECTRIC POWER, HIDALGO	NUECES-RIO GRANDE	228	266	313	371	440	523
M	SULLIVAN CITY	RIO GRANDE	544	647	755	869	989	1,107
M	WESLACO	NUECES-RIO GRANDE	7,873	9,551	11,271	13,040	14,852	16,625
	Sum of Projected Water Demands (acre-feet)		**164,430**	**196,959**	**230,317**	**264,460**	**299,367**	**334,155**

JIM HOGG COUNTY

100% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	COUNTY-OTHER, JIM HOGG	NUECES-RIO GRANDE	95	99	103	108	114	120
M	COUNTY-OTHER, JIM HOGG	RIO GRANDE	5	5	5	6	6	6
M	HEBBRONVILLE	NUECES-RIO GRANDE	592	616	638	673	709	745
M	IRRIGATION, JIM HOGG	NUECES-RIO GRANDE	351	330	318	331	361	361
M	IRRIGATION, JIM HOGG	RIO GRANDE	88	83	80	83	90	90
M	LIVESTOCK, JIM HOGG	NUECES-RIO GRANDE	327	327	327	327	327	327
M	LIVESTOCK, JIM HOGG	RIO GRANDE	109	109	109	109	109	109
M	MINING, JIM HOGG	NUECES-RIO GRANDE	84	87	65	48	31	20

Projected Water Demands
TWDB 2017 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	MINING, JIM HOGG	RIO GRANDE	9	10	7	5	3	2
	Sum of Projected Water Demands (acre-feet)		**1,660**	**1,666**	**1,652**	**1,690**	**1,750**	**1,780**

JIM WELLS COUNTY

93.44% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
N	ALICE	NUECES-RIO GRANDE	4,192	4,425	4,643	4,912	5,175	5,421
N	COUNTY-OTHER, JIM WELLS	NUECES	386	405	423	446	469	491
N	COUNTY-OTHER, JIM WELLS	NUECES-RIO GRANDE	2,075	2,178	2,277	2,401	2,528	2,648
N	IRRIGATION, JIM WELLS	NUECES	339	356	374	392	412	433
N	IRRIGATION, JIM WELLS	NUECES-RIO GRANDE	1,997	2,097	2,201	2,312	2,428	2,549
N	LIVESTOCK, JIM WELLS	NUECES	158	158	158	158	158	158
N	LIVESTOCK, JIM WELLS	NUECES-RIO GRANDE	804	804	804	804	804	804
N	MINING, JIM WELLS	NUECES	4	4	3	2	1	1
N	MINING, JIM WELLS	NUECES-RIO GRANDE	63	65	49	36	23	15
N	ORANGE GROVE	NUECES-RIO GRANDE	376	400	422	447	471	494
N	PREMONT	NUECES-RIO GRANDE	710	752	792	841	886	929
N	SAN DIEGO	NUECES-RIO GRANDE	186	196	205	217	229	240
	Sum of Projected Water Demands (acre-feet)		**11,290**	**11,840**	**12,351**	**12,968**	**13,584**	**14,183**

Projected Water Supply Needs
TWDB 2017 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

BROOKS COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
N	COUNTY-OTHER, BROOKS	NUECES-RIO GRANDE	124	103	80	53	26	1
N	FALFURRIAS	NUECES-RIO GRANDE	1,020	985	942	884	832	782
N	IRRIGATION, BROOKS	NUECES-RIO GRANDE	500	410	315	216	112	3
N	LIVESTOCK, BROOKS	NUECES-RIO GRANDE	0	0	0	0	0	0
N	MINING, BROOKS	NUECES-RIO GRANDE	3	0	20	36	52	62
	Sum of Projected Water Supply Needs (acre-feet)		**0**	**0**	**0**	**0**	**0**	**0**

HIDALGO COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	AGUA SUD	NUECES-RIO GRANDE	-684	-1,694	-2,744	-3,829	-4,942	-6,036
M	AGUA SUD	RIO GRANDE	-90	-223	-360	-502	-649	-792
M	ALAMO	NUECES-RIO GRANDE	-1,004	-1,682	-2,380	-3,099	-3,837	-4,560
M	ALTON	NUECES-RIO GRANDE	-785	-1,238	-1,704	-2,178	-2,657	-3,127
M	COUNTY-OTHER, HIDALGO	NUECES-RIO GRANDE	-1,326	-2,425	-3,552	-4,683	-5,814	-6,922
M	COUNTY-OTHER, HIDALGO	RIO GRANDE	-39	-63	-93	-123	-152	-182
M	DONNA	NUECES-RIO GRANDE	365	-151	-685	-1,244	-1,827	-2,400
M	EDCOUCH	NUECES-RIO GRANDE	-28	-89	-154	-224	-300	-375
M	EDINBURG	NUECES-RIO GRANDE	-4,016	-6,802	-9,675	-12,617	-15,624	-18,570
M	ELSA	NUECES-RIO GRANDE	99	-54	-212	-380	-558	-733
M	HIDALGO	NUECES-RIO GRANDE	-358	-749	-1,153	-1,567	-1,989	-2,403
M	HIDALGO	RIO GRANDE	-2	-6	-10	-13	-17	-21
M	HIDALGO COUNTY MUD #1	NUECES-RIO GRANDE	-298	-410	-529	-651	-777	-902
M	IRRIGATION, HIDALGO	NUECES-RIO GRANDE	-376,535	-348,278	-317,742	-283,018	-246,784	-247,253
M	IRRIGATION, HIDALGO	RIO GRANDE	-15,687	-14,510	-13,239	-11,793	-10,281	-10,303
M	LA JOYA	NUECES-RIO GRANDE	394	290	183	71	-45	-159
M	LA JOYA	RIO GRANDE	105	78	49	20	-11	-41
M	LA VILLA	NUECES-RIO GRANDE	-29	-82	-139	-197	-258	-318
M	LIVESTOCK, HIDALGO	NUECES-RIO GRANDE	848	848	848	848	848	848
M	LIVESTOCK, HIDALGO	RIO GRANDE	47	47	47	47	47	47
M	MANUFACTURING, HIDALGO	NUECES-RIO GRANDE	-1,747	-2,195	-2,643	-3,042	-3,562	-4,122
M	MCALLEN	NUECES-RIO GRANDE	-7,297	-15,788	-24,444	-33,291	-42,317	-51,132
M	MERCEDES	NUECES-RIO GRANDE	-281	-706	-1,149	-1,616	-2,107	-2,589

Projected Water Supply Needs
TWDB 2017 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	MILITARY HIGHWAY WSC	NUECES-RIO GRANDE	-376	-703	-1,050	-1,426	-1,820	-2,213
M	MILITARY HIGHWAY WSC	RIO GRANDE	-12	-24	-34	-48	-62	-75
M	MINING, HIDALGO	NUECES-RIO GRANDE	-1,235	-1,956	-2,495	-3,072	-3,736	-4,575
M	MINING, HIDALGO	RIO GRANDE	-147	-204	-246	-292	-344	-410
M	MISSION	NUECES-RIO GRANDE	-8,019	-12,508	-17,092	-21,753	-26,480	-31,099
M	MISSION	RIO GRANDE	-3	-6	-8	-11	-14	-16
M	NORTH ALAMO WSC	NUECES-RIO GRANDE	-1,060	-6,197	-11,494	-16,918	-22,445	-27,865
M	PALMHURST	NUECES-RIO GRANDE	-354	-571	-791	-1,013	-1,235	-1,452
M	PALMVIEW	NUECES-RIO GRANDE	-103	-257	-416	-580	-748	-914
M	PENITAS	NUECES-RIO GRANDE	-83	-212	-345	-481	-619	-755
M	PHARR	NUECES-RIO GRANDE	-106	-2,115	-4,203	-6,364	-8,596	-10,787
M	PHARR	RIO GRANDE	0	-1	-1	-2	-2	-3
M	PROGRESO	NUECES-RIO GRANDE	-157	-303	-455	-612	-774	-933
M	SAN JUAN	NUECES-RIO GRANDE	-1,897	-3,193	-4,527	-5,899	-7,306	-8,685
M	SHARYLAND WSC	NUECES-RIO GRANDE	-3,041	-4,737	-6,475	-8,267	-10,109	-11,911
M	STEAM ELECTRIC POWER, HIDALGO	NUECES-RIO GRANDE	-1,948	-4,342	-7,259	-10,815	-15,151	-20,304
M	SULLIVAN CITY	RIO GRANDE	-75	-178	-286	-400	-520	-638
M	WESLACO	NUECES-RIO GRANDE	-3,076	-4,754	-6,474	-8,243	-10,055	-11,828
	Sum of Projected Water Supply Needs (acre-feet)		**-431,898**	**-439,406**	**-446,258**	**-450,263**	**-454,524**	**-497,403**

JIM HOGG COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
M	COUNTY-OTHER, JIM HOGG	NUECES-RIO GRANDE	177	174	170	164	158	153
M	COUNTY-OTHER, JIM HOGG	RIO GRANDE	9	8	8	8	8	7
M	HEBBRONVILLE	NUECES-RIO GRANDE	0	-24	-46	-81	-117	-153
M	IRRIGATION, JIM HOGG	NUECES-RIO GRANDE	-211	-190	-178	-191	-221	-221
M	IRRIGATION, JIM HOGG	RIO GRANDE	-28	-23	-20	-23	-30	-30
M	LIVESTOCK, JIM HOGG	NUECES-RIO GRANDE	0	0	0	0	0	0
M	LIVESTOCK, JIM HOGG	RIO GRANDE	0	0	0	0	0	0
M	MINING, JIM HOGG	NUECES-RIO GRANDE	0	0	0	0	0	0
M	MINING, JIM HOGG	RIO GRANDE	0	0	0	0	0	0
	Sum of Projected Water Supply Needs (acre-feet)		**-239**	**-237**	**-244**	**-295**	**-368**	**-404**

Projected Water Supply Needs
TWDB 2017 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

JIM WELLS COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
N	ALICE	NUECES-RIO GRANDE	0	0	0	0	0	0
N	COUNTY-OTHER, JIM WELLS	NUECES	117	97	77	53	28	4
N	COUNTY-OTHER, JIM WELLS	NUECES-RIO GRANDE	679	569	463	330	195	66
N	IRRIGATION, JIM WELLS	NUECES	137	119	100	80	59	37
N	IRRIGATION, JIM WELLS	NUECES-RIO GRANDE	663	556	444	326	202	72
N	LIVESTOCK, JIM WELLS	NUECES	0	0	0	0	0	0
N	LIVESTOCK, JIM WELLS	NUECES-RIO GRANDE	0	0	0	0	0	0
N	MINING, JIM WELLS	NUECES	0	0	1	2	3	3
N	MINING, JIM WELLS	NUECES-RIO GRANDE	3	0	18	32	45	54
N	ORANGE GROVE	NUECES-RIO GRANDE	451	427	405	380	356	333
N	PREMONT	NUECES-RIO GRANDE	1,098	1,056	1,016	967	922	879
N	SAN DIEGO	NUECES-RIO GRANDE	3	-7	-16	-28	-40	-51
	Sum of Projected Water Supply Needs (acre-feet)		**0**	**-7**	**-16**	**-28**	**-40**	**-51**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

BROOKS COUNTY

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
FALFURRIAS, NUECES-RIO GRANDE (N)							
MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION [BROOKS]	91	224	360	508	649	786
		91	**224**	**360**	**508**	**649**	**786**
Sum of Projected Water Management Strategies (acre-feet)		**91**	**224**	**360**	**508**	**649**	**786**

HIDALGO COUNTY

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
AGUA SUD, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - AGUA SUD	DEMAND REDUCTION [HIDALGO]	0	0	115	464	931	1,486
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	615	615	616	690	691	691
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	497	497	686	686	687	687
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	158	317	792	1,425	2,060	2,060
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	179	232	284	337	390	442
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	457	506	554	603	652	701
		1,906	**2,167**	**3,047**	**4,205**	**5,411**	**6,067**
AGUA SUD, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - AGUA SUD	DEMAND REDUCTION [HIDALGO]	0	0	15	61	122	195
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	81	81	81	91	91	91
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	65	65	90	90	90	90
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	21	42	104	187	270	270
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	24	31	37	44	51	58

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	60	66	73	79	86	92
		251	**285**	**400**	**552**	**710**	**796**
ALAMO, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - ALAMO	DEMAND REDUCTION [HIDALGO]	0	0	159	403	722	1,097
ALAMO BGD PLANT	GULF COAST AQUIFER [HIDALGO]	1,000	1,000	1,000	1,000	1,000	1,000
ALAMO GROUNDWATER WELL	GULF COAST AQUIFER [HIDALGO]	1,120	1,120	1,120	1,120	1,120	1,120
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	1,000	1,000	1,000
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	100	166	232	297	363	429
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	50	50	50	50	50	50
		2,270	**2,336**	**2,561**	**3,870**	**4,255**	**4,696**
ALTON, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - ALTON	DEMAND REDUCTION [HIDALGO]	0	70	200	376	592	844
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	180	552	930	1,365	1,972	1,992
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	88	95	102	109	116	123
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	43	47	51	55	60	64
SHARYLAND WSC WELL AND RO UNIT AT WTP #2	GULF COAST AQUIFER [HIDALGO]	189	189	189	189	189	189
SHARYLAND WSC WELL AND RO UNIT AT WTP #3	GULF COAST AQUIFER [HIDALGO]	171	171	171	171	171	171
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	115	129	143	157	171	184
		786	**1,253**	**1,786**	**2,422**	**3,271**	**3,567**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
COUNTY-OTHER, HIDALGO, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - COUNTY-OTHER, HIDALGO	DEMAND REDUCTION [HIDALGO]	0	51	174	344	552	796
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	10	10	10	16	16	16
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	6	6	15	15	15	15
CAMERON COUNTY CONVERSION OF WRS	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	434	424	424	424	424	424
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	347	1,540	2,284	3,103	3,906	4,603
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	30	60	90	120	148	178
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	1	2	4	4	5
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	5	5	5	5	5	5
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	146	236	327	420	511	603
HIDALGO COUNTY CONVERSION OF WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	269	756	1,294	1,912	2,569	2,569
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	9	10	11	12	12	13
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	10	13	16	18	22	25
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3	4	6	9	11	12
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	51	57	61	66	71	77
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	3	3	3	3	3	3
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	101	102	102	102
		1,338	**3,196**	**4,846**	**6,597**	**8,398**	**9,510**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	4	4	4	4	4
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	2	2
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	36
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	1	1	1	1	1	1
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	6	6	8	8	8	8
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	8	9	10	11	12	13
		1,338	**3,196**	**4,846**	**6,597**	**8,398**	**9,510**
COUNTY-OTHER, HIDALGO, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - COUNTY-OTHER, HIDALGO	DEMAND REDUCTION [HIDALGO]	0	1	5	9	15	21
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	55	55	55	55	55	55
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	0	0	0	0
CAMERON COUNTY CONVERSION OF WRS	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	11	11	11	11	11
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	7	40	61	83	102	122
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	2	2	3	4	5
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	6	9	11	14	16
HIDALGO COUNTY CONVERSION OF WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	20	34	51	68	68
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0

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WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	2	2	2
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	0	0	0	0	0	0
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	3	3	3	3
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	0
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	1
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
		67	**136**	**181**	**228**	**274**	**304**
DONNA, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - DONNA	DEMAND REDUCTION [HIDALGO]	0	0	4	172	411	698
DONNA CONVERTED WATER RIGHTS AND WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	950	950	2,240	2,240	2,240	2,240
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	85	336	587	839	1,090	1,341
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	50	50	50	50	50
		1,035	**1,336**	**2,881**	**3,301**	**3,791**	**4,329**
EDCOUCH, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - EDCOUCH	DEMAND REDUCTION [HIDALGO]	0	0	0	0	1	35
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	40	40	40	100	100	100

Projected Water Management Strategies
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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
EDCOUCH EMERGENCY GROUNDWATER SUPPLY	GULF COAST AQUIFER [HIDALGO]	500	500	500	500	500	500
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	22	36	50	64	78	92
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	50	50	50	50
		562	**576**	**640**	**714**	**729**	**777**
EDINBURG, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - EDINBURG	DEMAND REDUCTION [HIDALGO]	0	83	790	1,809	3,125	4,662
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	200	2,100	3,500	5,500	8,000	8,000
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	2	2	3	4	4
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	1	1	1	2
EDINBURG NON-POTABLE REUSE	DIRECT REUSE [HIDALGO]	2,622	3,180	3,754	3,920	3,920	3,920
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	1	1	1	2	2
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,292	1,396	1,500	1,604	1,708	1,812
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	140	234	326	418	511	603
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	12	20	20	20
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	205	205	205	205	205	205
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	4	4
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	2
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	1	1	1	1	1	1
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	1	1	1

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WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
		4,462	7,203	10,093	13,483	17,502	19,238
ELSA, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - ELSA	DEMAND REDUCTION [HIDALGO]	0	0	0	11	79	163
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	100	150
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	62	101	141	180	220	259
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	200	200	200	200
		62	**101**	**341**	**391**	**599**	**772**
HIDALGO, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - HIDALGO	DEMAND REDUCTION [HIDALGO]	0	11	111	254	438	654
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	396	495	1,040	1,040	1,486	1,486
HIDALGO EXPAND EXISTING GROUNDWATER SUPPLY	GULF COAST AQUIFER [HIDALGO]	297	297	297	297	297	297
		693	**803**	**1,448**	**1,591**	**2,221**	**2,437**
HIDALGO, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - HIDALGO	DEMAND REDUCTION [HIDALGO]	0	0	1	2	4	6
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	5	10	10	14	14
HIDALGO EXPAND EXISTING GROUNDWATER SUPPLY	GULF COAST AQUIFER [HIDALGO]	3	3	3	3	3	3
		7	**8**	**14**	**15**	**21**	**23**
HIDALGO COUNTY MUD #1, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - HIDALGO COUNTY MUD #1	DEMAND REDUCTION [HIDALGO]	0	0	0	0	0	56
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	500	500	500	1,500	1,500	1,500
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	203	219	235	252	268	284
HIDALGO COUNTY MUNICIPAL UTILITY DISTRICT NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	171	187	204	221	238	256
		874	**906**	**939**	**1,973**	**2,006**	**2,096**

Projected Water Management Strategies
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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
IRRIGATION, HIDALGO, NUECES-RIO GRANDE (M)							
ARRUNDO DONAX BIOLOGICAL CONTROL	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,876	2,066	2,250	2,424	2,586	2,776
BRUSH CONTROL	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3,103	6,036	8,942	11,820	14,671	17,533
DELTA WATERSHED PROJECT - EDINBURG RESERVOIR	NUECES-RIO GRANDE RUN-OF-RIVER [HIDALGO]	1,739	1,739	1,739	1,739	1,739	1,739
DELTA WATERSHED PROJECT - NEW RESERVOIR	NUECES-RIO GRANDE RUN-OF-RIVER [HIDALGO]	1,878	1,878	1,878	1,878	1,878	1,878
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	812	3,201	5,570	7,920	10,246	12,580
ENGLEMAN ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	865	949	1,033	1,118	1,206	1,298
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2,473	4,053	5,616	7,165	8,699	10,241
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	8,890	9,594	10,270	10,939	11,597	12,276
HIDALGO COUNTY ID NO. 13 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	116	153	189	226	264	302
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,057	1,364	1,666	1,965	2,261	2,559
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2,605	4,319	6,013	7,693	9,355	11,028
HIDALGO COUNTY ID NO. 5 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,164	1,163	1,159	1,155	1,150	1,148
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,919	2,121	2,316	2,509	2,700	2,894
HIDALGO COUNTY MUNICIPAL UTILITY DISTRICT NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	41	45	49	53	57	60
		111,945	**122,924**	**133,758**	**144,507**	**155,152**	**165,933**

Projected Water Management Strategies
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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY WCID NO. 18 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	29	33	36	40	44	49
HIDALGO COUNTY WID NO. 19 (SHARYLAND) CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	531	563	593	623	653	684
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	395	451	506	561	614	669
ON-FARM IRRIGATION CONSERVATION	DEMAND REDUCTION [HIDALGO]	75,226	75,226	75,226	75,226	75,226	75,226
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3,590	3,912	4,229	4,549	4,871	5,210
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2,586	2,893	3,192	3,488	3,779	4,076
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	640	651	660	669	679	688
VALLEY ACRES ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	410	514	626	747	877	1,019
		111,945	**122,924**	**133,758**	**144,507**	**155,152**	**165,933**
IRRIGATION, HIDALGO, RIO GRANDE (M)							
ARRUNDO DONAX BIOLOGICAL CONTROL	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	78	86	94	101	108	116
BRUSH CONTROL	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	130	252	372	492	611	731
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	34	133	232	330	427	524
ENGLEMAN ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	36	40	43	47	50	54
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	103	169	234	299	362	427
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	370	399	429	456	483	511

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY ID NO. 13 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	5	6	8	9	11	13
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	44	57	69	82	94	107
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	109	180	251	321	390	459
HIDALGO COUNTY ID NO. 5 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	48	48	48	48	48	48
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	80	88	97	105	112	121
HIDALGO COUNTY MUNICIPAL UTILITY DISTRICT NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2	2	2	2	2	3
HIDALGO COUNTY WCID NO. 18 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	2	2	2	2
HIDALGO COUNTY WID NO. 19 (SHARYLAND) CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	22	23	25	26	27	28
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	16	19	21	23	26	28
ON-FARM IRRIGATION CONSERVATION	DEMAND REDUCTION [HIDALGO]	3,134	3,134	3,134	3,134	3,134	3,134
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	150	163	176	190	203	217
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	108	121	133	145	157	170
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	27	27	28	28	28	29
VALLEY ACRES ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	17	21	26	31	37	42
		4,514	4,969	5,424	5,871	6,312	6,764
LA JOYA, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - LA JOYA	DEMAND REDUCTION [HIDALGO]	0	0	0	0	44	99
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	20	20	20	26	26	26

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	14	14	36	36	36	36
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	39	50	62	72	83	95
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	13	15	17	17	19	21
		86	**99**	**135**	**151**	**208**	**277**
LA JOYA, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - LA JOYA	DEMAND REDUCTION [HIDALGO]	0	0	0	0	12	26
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	5	5	5	7	7	7
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	4	4	9	9	9	9
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	10	14	16	20	22	25
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	4	4	5	5	5
		23	**27**	**34**	**41**	**55**	**72**
LA VILLA, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - LA VILLA	DEMAND REDUCTION [HIDALGO]	0	0	0	17	42	71
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	50	55	50	50	100	100
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	17	27	38	49	60	70
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	100	100	100	100
		67	**82**	**188**	**216**	**302**	**341**
LIVESTOCK, HIDALGO, NUECES-RIO GRANDE (M)							
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	35	69	103	136	170	204
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	42	68	95	122	149	175
		77	**137**	**198**	**258**	**319**	**379**

Projected Water Management Strategies
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WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
LIVESTOCK, HIDALGO, RIO GRANDE (M)							
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	7	10	14	17	21
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	7	10	12	15	18
		8	**14**	**20**	**26**	**32**	**39**
MANUFACTURING, HIDALGO, NUECES-RIO GRANDE (M)							
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	202	551	909	1,222	1,645	2,100
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	28	55	82	109	136	163
EDINBURG NON-POTABLE REUSE	DIRECT REUSE [HIDALGO]	1,298	740	166	0	0	0
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	15	17	18	19	21	22
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	66	76	85	95	104	114
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [HIDALGO]	546	591	636	676	728	784
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	1
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	160	160	160	160	160	160
VALLEY ACRES ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	14	17	21	25	30	35
		2,329	**2,207**	**2,077**	**2,306**	**2,824**	**3,379**
MCALLEN, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - MCALLEN	DEMAND REDUCTION [HIDALGO]	1,674	5,608	10,888	17,372	23,904	29,468
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	800	800	2,200	4,700
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	542	586	629	673	716	760
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	359	595	832	1,068	1,305	1,541

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WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,802	2,063	2,324	2,585	2,846	3,107
MCALLEN BGD PLANT	GULF COAST AQUIFER [HIDALGO]	2,688	2,688	2,688	2,688	2,688	2,688
MCALLEN HCID NO. 1 RAW WATER LINE PROJECT	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	800	800	800	800	800	800
MCALLEN NORTH WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	1,120	2,000	2,000	2,000
MCALLEN SOUTH WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	2,000	2,500	3,500	3,500	3,500
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2,052	2,298	2,544	2,791	3,037	3,283
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	133	135	137	140	142	144
		10,050	**16,773**	**25,262**	**34,417**	**43,138**	**51,991**
MERCEDES, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - MERCEDES	DEMAND REDUCTION [HIDALGO]	0	0	80	225	433	679
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	136	223	310	397	484	571
MERCEDES POTABLE REUSE	DIRECT REUSE [HIDALGO]	1,670	1,670	1,670	1,670	1,670	1,670
		1,806	**1,893**	**2,060**	**2,292**	**2,587**	**2,920**
MILITARY HIGHWAY WSC, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - MILITARY HIGHWAY WSC	DEMAND REDUCTION [HIDALGO]	0	51	148	288	470	682
CAMERON COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3	4	4	5	5	6
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	95	354	595	854	1,103	1,415
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	104	108	111	112	113	114
HARLINGEN ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	8	27	47	68	89	109

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WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HARLINGEN WWTP 2 POTABLE REUSE	DIRECT REUSE [CAMERON]	0	0	7	7	7	7
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	144	149	154	156	157	158
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	1	1	1	1
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	1	1	1	1	1
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	0
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	0
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	22	23	24	24	24	24
		376	**717**	**1,092**	**1,516**	**1,970**	**2,517**

MILITARY HIGHWAY WSC, RIO GRANDE (M)

ADVANCED MUNICIPAL CONSERVATION - MILITARY HIGHWAY WSC	DEMAND REDUCTION [HIDALGO]	0	2	5	10	16	23
CAMERON COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3	13	20	29	38	49
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	1	1	1	1	2
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	4	4	4	4	4
HARLINGEN ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	1	1	2	3	4
HARLINGEN WWTP 2 POTABLE REUSE	DIRECT REUSE [CAMERON]	0	0	0	0	0	0
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	5	5	5	6	6	6
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	0
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	0
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	1	1	1	1	1	1
		13	**27**	**37**	**53**	**69**	**89**
MINING, HIDALGO, NUECES-RIO GRANDE (M)							
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	2	2	2	4	4	4
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	1	1	9	9	9	9
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	10	14	18	20	23	26
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	1	2	2
HIDALGO COUNTY WCID NO. 18 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	82	95	107	118	129	141
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	10	12	13	15	16	18
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [HIDALGO]	264	336	389	447	513	596
		370	**461**	**539**	**614**	**696**	**796**
MINING, HIDALGO, RIO GRANDE (M)							
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	0	0	0	0
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	1	1	1	1
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	2	2	2
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY WCID NO. 18 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	7	7	8	9	10	11
HIDALGO COUNTY WID NO. 3 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	1	1	1
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [HIDALGO]	21	26	31	35	40	47
		30	**35**	**42**	**48**	**54**	**62**
MISSION, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - MISSION	DEMAND REDUCTION [HIDALGO]	924	3,044	5,871	8,419	10,978	13,791
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	4	4	4	10	10	10
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	3	3	12	12	12	12
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	600	2,099	3,498	3,498	3,498
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	2	2	2	3	3
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	3	3	4	4	4	5
MISSION BGD PLANT	GULF COAST AQUIFER [HIDALGO]	2,687	2,686	2,687	2,686	2,686	2,687
MISSION WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	3,918	3,918	3,918	7,836	7,836	7,836
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	2,051	2,297	2,543	2,789	3,035	3,281
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	41	41	42	43	44	44
		9,632	**12,598**	**17,182**	**25,299**	**28,106**	**31,167**
MISSION, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - MISSION	DEMAND REDUCTION [HIDALGO]	1	2	3	5	6	8
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	0	0	0	0
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	0	0	0	0	0	0
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	1	2	2	2

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
MISSION BGD PLANT	GULF COAST AQUIFER [HIDALGO]	1	2	1	2	2	1
MISSION WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	2	2	2	4	4	4
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1	1	1	2	2	2
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	0
		5	**7**	**8**	**15**	**16**	**17**
NORTH ALAMO WSC, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - NORTH ALAMO WSC	DEMAND REDUCTION [HIDALGO]	823	1,850	3,456	5,592	8,224	11,229
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	382	746	1,114	1,481	1,849	2,218
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	49	192	335	478	625	767
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	237	387	542	694	846	1,000
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	563	613	658	704	750	797
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	154	257	360	463	567	670
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	3,617	4,731	4,738	4,743
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	460	3,402	3,406	3,413	3,416	3,421
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	1,363	1,365
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	965
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	471	473	474	475	476	476

Projected Water Management Strategies
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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	255	281	304	330	355	381
		3,394	**8,201**	**14,266**	**18,361**	**23,209**	**28,032**
PALMHURST, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PALMHURST	DEMAND REDUCTION [HIDALGO]	57	166	306	472	659	861
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	39	118	195	285	432	438
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	40	44	47	50	53	57
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	20	22	24	25	27	29
SHARYLAND WSC WELL AND RO UNIT AT WTP #2	GULF COAST AQUIFER [HIDALGO]	90	90	90	90	90	90
SHARYLAND WSC WELL AND RO UNIT AT WTP #3	GULF COAST AQUIFER [HIDALGO]	72	72	72	72	72	72
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	53	59	66	72	78	85
		371	**571**	**800**	**1,066**	**1,411**	**1,632**
PALMVIEW, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PALMVIEW	DEMAND REDUCTION [HIDALGO]	0	0	21	75	145	230
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	100	100	100	146	146	146
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	75	75	299	299	299	299
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	8	16	40	72	104	104
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	27	35	43	51	59	66
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	69	76	83	91	98	105
		279	**302**	**586**	**734**	**851**	**950**
PENITAS, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PENITAS	DEMAND REDUCTION [HIDALGO]	0	5	39	86	147	218

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	81	81	81	123	123	123
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	61	61	240	240	240	240
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	8	20	36	52	52
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	22	28	35	41	47	54
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	56	62	68	74	79	85
		224	**245**	**483**	**600**	**688**	**772**
PHARR, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PHARR	DEMAND REDUCTION [HIDALGO]	0	0	167	848	1,777	2,883
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	420	697	974	1,250	1,527	1,803
PHARR DIRECT POTABLE REUSE	DIRECT REUSE [HIDALGO]	6,719	6,719	6,719	6,719	6,719	6,719
		7,139	**7,416**	**7,860**	**8,817**	**10,023**	**11,405**
PHARR, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PHARR	DEMAND REDUCTION [HIDALGO]	0	0	0	0	0	1
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	0	0	0	1
PHARR DIRECT POTABLE REUSE	DIRECT REUSE [HIDALGO]	2	2	2	2	2	2
		2	**2**	**2**	**2**	**2**	**4**
PROGRESO, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - PROGRESO	DEMAND REDUCTION [HIDALGO]	0	0	7	55	122	202
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	34	139	227	321	460	573
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	100	100	100	100	100	100
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	150	150	150	150	150	150
		284	**389**	**484**	**626**	**832**	**1,025**

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Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
SAN JUAN, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - SAN JUAN	DEMAND REDUCTION [HIDALGO]	0	15	330	799	1,411	2,128
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	202	809	1,614	1,620	1,950	1,950
DELTA LAKE ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	28	54	80	106	132	158
DONNA ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	14	24	35	45	56
ERHWSC SURFACE WATER TREATMENT PLANT AND CONVERTED WR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	5	5	5	5	5	5
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	17	28	39	50	61	72
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	15	16	18	19	20	21
HIDALGO COUNTY ID NO. 2 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	144	240	335	431	526	622
MHWSC EXPAND EXISTING GW SUPPLIES - CAMERON COUNTY	GULF COAST AQUIFER [CAMERON]	5	5	5	5	5	5
NAWSC CONVERTED WATER RIGHTS AND DELTA WTP EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	0	227	735	735	735
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	12	230	230	230	230	230
NAWSC DELTA AREA RO WTP EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	800	800
NAWSC LA SARA RO PLANT EXPANSION	GULF COAST AQUIFER [WILLACY]	0	0	0	0	0	70
NORTH CAMERON REGIONAL WTP WELLFIELD EXPANSION	GULF COAST AQUIFER [CAMERON]	52	52	52	52	52	52
SAN JUAN WTP UPGRADE AND EXPANSION TO INCLUDE BGD	GULF COAST AQUIFER [HIDALGO]	1,792	1,792	1,792	1,792	1,792	1,792
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	19	20	22	24	26	28
		2,295	**3,280**	**4,773**	**5,903**	**7,790**	**8,724**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
SHARYLAND WSC, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - SHARYLAND WSC	DEMAND REDUCTION [HIDALGO]	231	968	1,507	2,235	3,141	4,164
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	470	1,378	2,323	3,298	4,982	5,055
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	580	626	672	719	765	812
SANTA CRUZ ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	166	181	196	212	228	244
SHARYLAND WSC WELL AND RO UNIT AT WTP #2	GULF COAST AQUIFER [HIDALGO]	621	621	621	621	621	621
SHARYLAND WSC WELL AND RO UNIT AT WTP #3	GULF COAST AQUIFER [HIDALGO]	657	657	657	657	657	657
UNITED ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	441	494	547	600	653	706
UNITED ID OFF-CHANNEL RESERVOIR	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	4	4	4	4	4	4
		3,170	**4,929**	**6,527**	**8,346**	**11,051**	**12,263**
STEAM ELECTRIC POWER, HIDALGO, NUECES-RIO GRANDE (M)							
CAMERON COUNTY CONVERSION OF WRS	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	0	813	1,484	2,048	3,021	2,578
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	318	1,743	3,753	6,987	10,638	14,249
HIDALGO COUNTY ID NO. 1 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	34	37	39	42	45	48
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	16	17	19	20	22	24
HIDALGO STEAM-ELEC. ADDITIONAL GROUNDWATER WELLS	GULF COAST AQUIFER [HIDALGO]	100	100	100	100	100	100
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [HIDALGO]	1,415	1,655	1,946	2,302	2,735	3,251
VALLEY ACRES ID CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	67	83	102	121	143	166
		1,950	**4,448**	**7,443**	**11,620**	**16,704**	**20,416**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
SULLIVAN CITY, RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - SULLIVAN CITY	DEMAND REDUCTION [HIDALGO]	0	0	0	13	61	118
AGUA SUD EAST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	73	73	73	88	88	88
AGUA SUD WEST WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	55	55	279	279	279	279
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	8	16	40	72	104	104
HIDALGO COUNTY ID NO. 16 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	20	26	31	37	43	49
HIDALGO COUNTY ID NO. 6 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	50	56	61	66	72	77
		206	**226**	**484**	**555**	**647**	**715**
WESLACO, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - WESLACO	DEMAND REDUCTION [HIDALGO]	241	893	1,427	2,144	3,030	4,032
CONVERSION OF IRRIGATION WATER RIGHTS TO DMI	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	679	1,375	3,000	3,500	3,500	3,500
HIDALGO AND CAMERON COUNTY ID NO. 9 CONSERVATION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	479	785	1,092	1,399	1,706	2,013
NAWSC CONVERTED WATER RIGHTS AND WTP NO. 5 EXPANSION	AMISTAD-FALCON LAKE/RESERVOIR SYSTEM [RESERVOIR]	370	370	370	370	370	370
WESLACO GROUNDWATER DEVELOPMENT AND BLENDING	GULF COAST AQUIFER [HIDALGO]	560	560	560	560	560	560
WESLACO NORTH WWTP POTABLE REUSE	DIRECT REUSE [HIDALGO]	1,120	1,120	1,120	1,120	3,360	3,360
		3,449	**5,103**	**7,569**	**9,093**	**12,526**	**13,835**
Sum of Projected Water Management Strategies (acre-feet)		**178,407**	**218,388**	**268,510**	**322,695**	**376,762**	**421,128**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

JIM HOGG COUNTY

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
HEBBRONVILLE, NUECES-RIO GRANDE (M)							
ADVANCED MUNICIPAL CONSERVATION - HEBBRONVILLE	DEMAND REDUCTION [JIM HOGG]	0	1	14	37	69	105
HEBBRONVILLE NEW BGD PLANT	GULF COAST AQUIFER [JIM HOGG]	560	560	560	560	560	560
		560	**561**	**574**	**597**	**629**	**665**
IRRIGATION, JIM HOGG, NUECES-RIO GRANDE (M)							
JIM HOGG IRRIGATION ADDITIONAL GROUNDWATER WELLS	GULF COAST AQUIFER [JIM HOGG]	250	250	250	250	250	250
ON-FARM IRRIGATION CONSERVATION	DEMAND REDUCTION [JIM HOGG]	43	43	43	43	43	43
		293	**293**	**293**	**293**	**293**	**293**
IRRIGATION, JIM HOGG, RIO GRANDE (M)							
JIM HOGG IRRIGATION ADDITIONAL GROUNDWATER WELLS	GULF COAST AQUIFER [JIM HOGG]	50	50	50	50	50	50
ON-FARM IRRIGATION CONSERVATION	DEMAND REDUCTION [JIM HOGG]	11	11	11	11	11	11
		61	**61**	**61**	**61**	**61**	**61**
MINING, JIM HOGG, NUECES-RIO GRANDE (M)							
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [JIM HOGG]	8	9	7	5	3	2
		8	**9**	**7**	**5**	**3**	**2**
MINING, JIM HOGG, RIO GRANDE (M)							
IMPLEMENTATION OF BEST MANAGEMENT PRACTICES	DEMAND REDUCTION [JIM HOGG]	1	1	1	1	0	0
		1	**1**	**1**	**1**	**0**	**0**
Sum of Projected Water Management Strategies (acre-feet)		**923**	**925**	**936**	**957**	**986**	**1,021**

JIM WELLS COUNTY

WUG, Basin (RWPG) — All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
ALICE, NUECES-RIO GRANDE (N)							
BRACKISH GROUNDWATER DEVELOPMENT - ALICE	GULF COAST AQUIFER [JIM WELLS]	3,363	3,363	3,363	3,363	3,363	3,363

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

WUG, Basin (RWPG) All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
GBRA LOWER BASIN OFF-CHANNEL RESERVOIR	GBRA LOWER BASIN OFF-CHANNEL LAKE/ RESERVOIR [RESERVOIR]	0	2,800	2,800	2,800	2,800	2,800
MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION [JIM WELLS]	143	289	352	262	300	340
O.N. STEVENS WTP IMPROVEMENTS	CORPUS CHRISTI-CHOKE CANYON LAKE/RESERVOIR SYSTEM [RESERVOIR]	1,204	0	0	0	0	0
PIPELINE REPLACEMENT PROGRAM (ALICE)	DEMAND REDUCTION [JIM WELLS]	0	173	460	576	576	576
REUSE - ALICE	DIRECT REUSE [JIM WELLS]	0	897	897	897	897	897
		4,710	**7,522**	**7,872**	**7,898**	**7,936**	**7,976**
ORANGE GROVE, NUECES-RIO GRANDE (N)							
MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION [JIM WELLS]	18	49	83	120	159	183
		18	**49**	**83**	**120**	**159**	**183**
PREMONT, NUECES-RIO GRANDE (N)							
MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION [JIM WELLS]	31	87	149	221	289	303
		31	**87**	**149**	**221**	**289**	**303**
SAN DIEGO, NUECES-RIO GRANDE (N)							
GULF COAST AQUIFER SUPPLIES - SAN DIEGO	GULF COAST AQUIFER [DUVAL]	0	33	33	34	35	35
MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION [JIM WELLS]	6	20	25	25	26	27
		6	**53**	**58**	**59**	**61**	**62**
Sum of Projected Water Management Strategies (acre-feet)		**4,765**	**7,711**	**8,162**	**8,298**	**8,445**	**8,524**

APPENDIX I

GAM RUN 17-001: BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT GROUNDWATER MANAGEMENT PLAN

Natalie Ballew, GIT
Texas Water Development Board
Groundwater Division
Groundwater Availability Modeling Department
512-463-2779
October 4, 2017

Cynthia K. Ridgeway is the Manager of the Groundwater Availability Modeling Section and is responsible for oversight of work performed by Natalie Ballew under her direct supervision. The seal appearing on this document was authorized by Cynthia K. Ridgeway, P.G. 471 on October 4, 2017.

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GAM Run 17-001: Brush Country Groundwater Conservation District Groundwater Management Plan

Natalie Ballew, GIT
Texas Water Development Board
Groundwater Division
Groundwater Availability Modeling Department
512-463-2779
October 4, 2017

EXECUTIVE SUMMARY:

Texas State Water Code, Section 36.1071, Subsection (h) (Texas Water Code, 2015), states that, in developing its groundwater management plan, a groundwater conservation district shall use groundwater availability modeling information provided by the Executive Administrator of the Texas Water Development Board (TWDB) in conjunction with any available site-specific information provided by the district for review and comment to the Executive Administrator.

The TWDB provides data and information to the Brush Country Groundwater Conservation District in two parts. Part 1 is the Estimated Historical Water Use/State Water Plan dataset report, which will be provided to you separately by the TWDB Groundwater Technical Assistance Department. Please direct questions about the water data report to Mr. Stephen Allen at 512-463-7317 or stephen.allen@twdb.texas.gov. Part 2 is the required groundwater availability modeling information and this information includes:

1. the annual amount of recharge from precipitation, if any, to the groundwater resources within the district;

2. for each aquifer within the district, the annual volume of water that discharges from the aquifer to springs and any surface-water bodies, including lakes, streams, and rivers; and

3. the annual volume of flow into and out of the district within each aquifer and between aquifers in the district.

The groundwater management plan for the Brush Country Groundwater Conservation District should be adopted by the district on or before January 8, 2018, and submitted to the Executive Administrator of the TWDB on or before February 7, 2018. The current

management plan for the Brush Country Groundwater Conservation District expires on April 8, 2018.

We used one groundwater model to estimate the management plan information for the aquifers within the Brush Country Groundwater Conservation District. Information for the Gulf Coast and Yegua-Jackson aquifers is from version 1.01 of the alternative numerical groundwater flow model for the Gulf Coast Aquifer in Groundwater Management Area 16 (Hutchison and others, 2011). This model was used because it encompasses the entire district whereas the groundwater availability models for the central portion and southern portion of the Gulf Coast Aquifer System only contain portions of the district.

This report replaces the results of GAM Run 12-013 (Wade, 2012). GAM Run 17-001 meets current standards set after the release of GAM Run 12-013. Tables 1 and 2 summarize the groundwater availability model data required by statute and Figures 1 and 2 show the area of the model from which the values in the tables were extracted. If, after review of the figures, the Brush Country Groundwater Conservation District determines that the district boundaries used in the assessment do not reflect current conditions, please notify the TWDB at your earliest convenience.

METHODS:

In accordance with the provisions of the Texas State Water Code, Section 36.1071, Subsection (h), version 1.01 of the alternative numerical groundwater flow model for the Gulf Coast Aquifer in Groundwater Management Area 16 was used to estimate information for the Brush Country Groundwater Conservation District management plan. Water budgets were extracted for the historical model periods using ZONEBUDGET Version 3.01 (Harbaugh, 2009). The average annual water budget values for recharge, surface-water outflow, inflow to the district, outflow from the district for the aquifers within the district, and flow between each aquifer in the district are summarized in this report.

PARAMETERS AND ASSUMPTIONS:

Gulf Coast and Yegua-Jackson aquifers

- We used version 1.01 of the alternative numerical groundwater flow model for the Gulf Coast Aquifer in Groundwater Management Area 16. See Hutchison and others (2011) for assumptions and limitations of the model.
- The alternative numerical groundwater flow model for the Gulf Coast Aquifer in Groundwater Management Area 16 contains 6 layers: Layers 1 through 4 (the Gulf

Coast Aquifer System, comprised of the Chicot Aquifer, Evangeline Aquifer, Burkeville Confining System, and Jasper Aquifer), Layer 5 (Yegua-Jackson Aquifer), and Layer 6 (Queen City, Sparta, and Carrizo-Wilcox aquifers).

- Layer 5, representing the Yegua-Jackson Aquifer, includes parts of the Catahoula Formation. Because layers 1 through 4 do not include the full extent of the official Gulf Coast Aquifer boundary, model cells representing the outcrop area of the Gulf Coast Aquifer in Layer 5 were included in budget calculations for the Gulf Coast Aquifer.
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).

RESULTS:

A groundwater budget summarizes the amount of water entering and leaving the aquifers according to the groundwater availability model. Selected groundwater budget components listed below were extracted from the groundwater model results for the Gulf Coast and Yegua-Jackson aquifers located within Brush Country Groundwater Conservation District and averaged over the historical calibration periods, as shown in Tables 1 and 2.

1. Precipitation recharge—the areally distributed recharge sourced from precipitation falling on the outcrop areas of the aquifers (where the aquifer is exposed at land surface) within the district.
2. Surface-water outflow—the total water discharging from the aquifer (outflow) to surface-water features such as streams, reservoirs, and springs.
3. Flow into and out of district—the lateral flow within the aquifer between the district and adjacent counties.
4. Flow between aquifers—the net vertical flow between the aquifer and adjacent aquifers or confining units. This flow is controlled by the relative water levels in each aquifer and aquifer properties of each aquifer or confining unit that define the amount of leakage that occurs.

The information needed for the district's management plan is summarized in Tables 1 and 2. It is important to note that sub-regional water budgets are not exact. This is due to the size of the model cells and the approach used to extract data from the model. To avoid double accounting, a model cell that straddles a political boundary, such as a district or county boundary, is assigned to one side of the boundary based on the location of the centroid of the model cell. For example, if a cell contains two counties, the cell is assigned to the county where the centroid of the cell is located.

TABLE 1. SUMMARIZED INFORMATION FOR THE GULF COAST AQUIFER FOR BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT'S GROUNDWATER MANAGEMENT PLAN. ALL VALUES ARE REPORTED IN ACRE-FEET PER YEAR AND ROUNDED TO THE NEAREST 1 ACRE-FOOT.

Management Plan requirement	Aquifer or confining unit	Results
Estimated annual amount of recharge from precipitation to the district	Gulf Coast Aquifer	8,291
Estimated annual volume of water that discharges from the aquifer to springs and any surface-water body including lakes, streams, and rivers	Gulf Coast Aquifer	2,633
Estimated annual volume of flow into the district within each aquifer in the district	Gulf Coast Aquifer	26,724
Estimated annual volume of flow out of the district within each aquifer in the district	Gulf Coast Aquifer	43,886
Estimated net annual volume of flow between each aquifer in the district	From the Gulf Coast Aquifer into the underlying Yegua-Jackson Aquifer	401

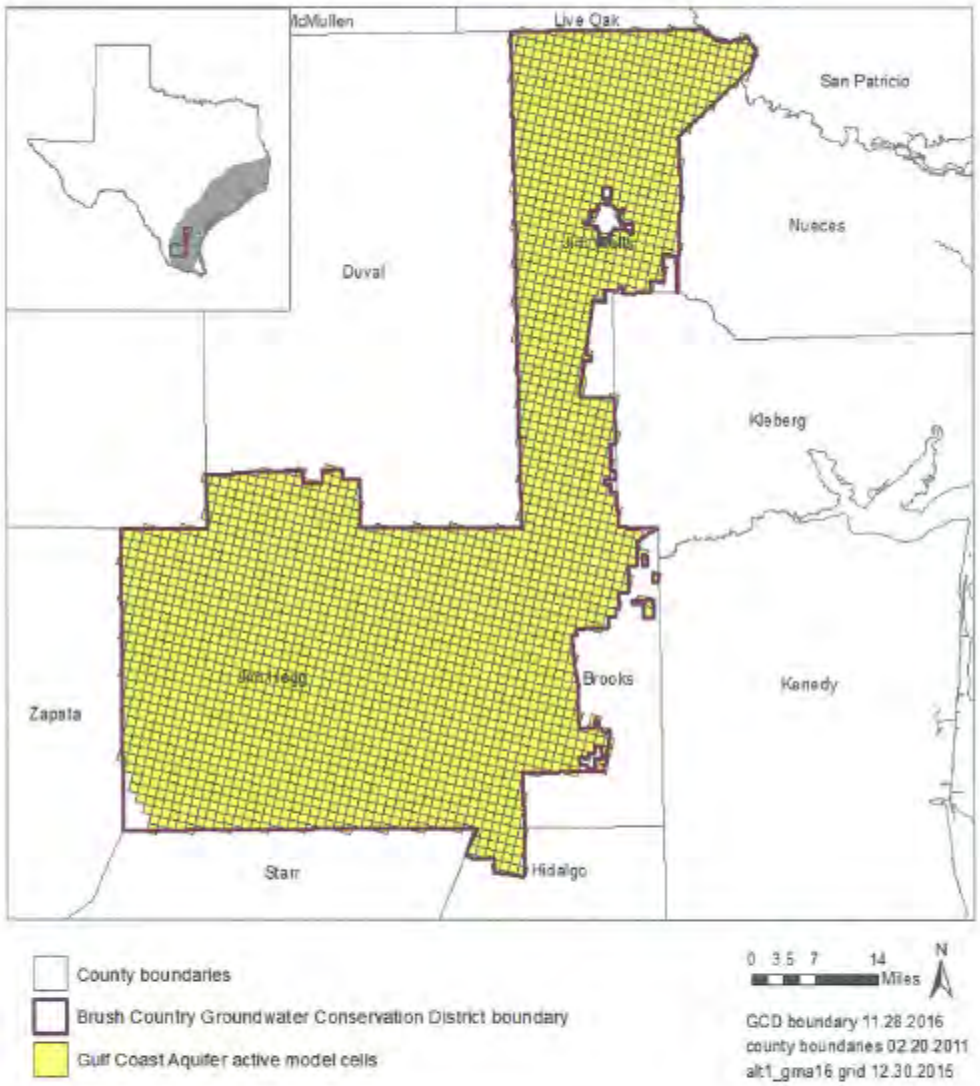

FIGURE 1. AREA OF THE ALTERNATIVE NUMERICAL GROUNDWATER FLOW MODEL FOR THE GULF COAST AQUIFER IN GROUNDWATER MANAGEMENT AREA 16 FROM WHICH THE INFORMATION IN TABLE 1 WAS EXTRACTED (THE GULF COAST AQUIFER SYSTEM EXTENT WITHIN THE DISTRICT BOUNDARY).

TABLE 2. SUMMARIZED INFORMATION FOR THE YEGUA-JACKSON AQUIFER FOR BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT'S GROUNDWATER MANAGEMENT PLAN. ALL VALUES ARE REPORTED IN ACRE-FEET PER YEAR AND ROUNDED TO THE NEAREST 1 ACRE-FOOT.

Management Plan requirement	Aquifer or confining unit	Results
Estimated annual amount of recharge from precipitation to the district	Yegua-Jackson Aquifer	60
Estimated annual volume of water that discharges from the aquifer to springs and any surface-water body including lakes, streams, and rivers	Yegua-Jackson Aquifer	0
Estimated annual volume of flow into the district within each aquifer in the district	Yegua-Jackson Aquifer	455
Estimated annual volume of flow out of the district within each aquifer in the district	Yegua-Jackson Aquifer	834
Estimated net annual volume of flow between each aquifer in the district	From the overlying Gulf Coast Aquifer into the Yegua-Jackson Aquifer	401

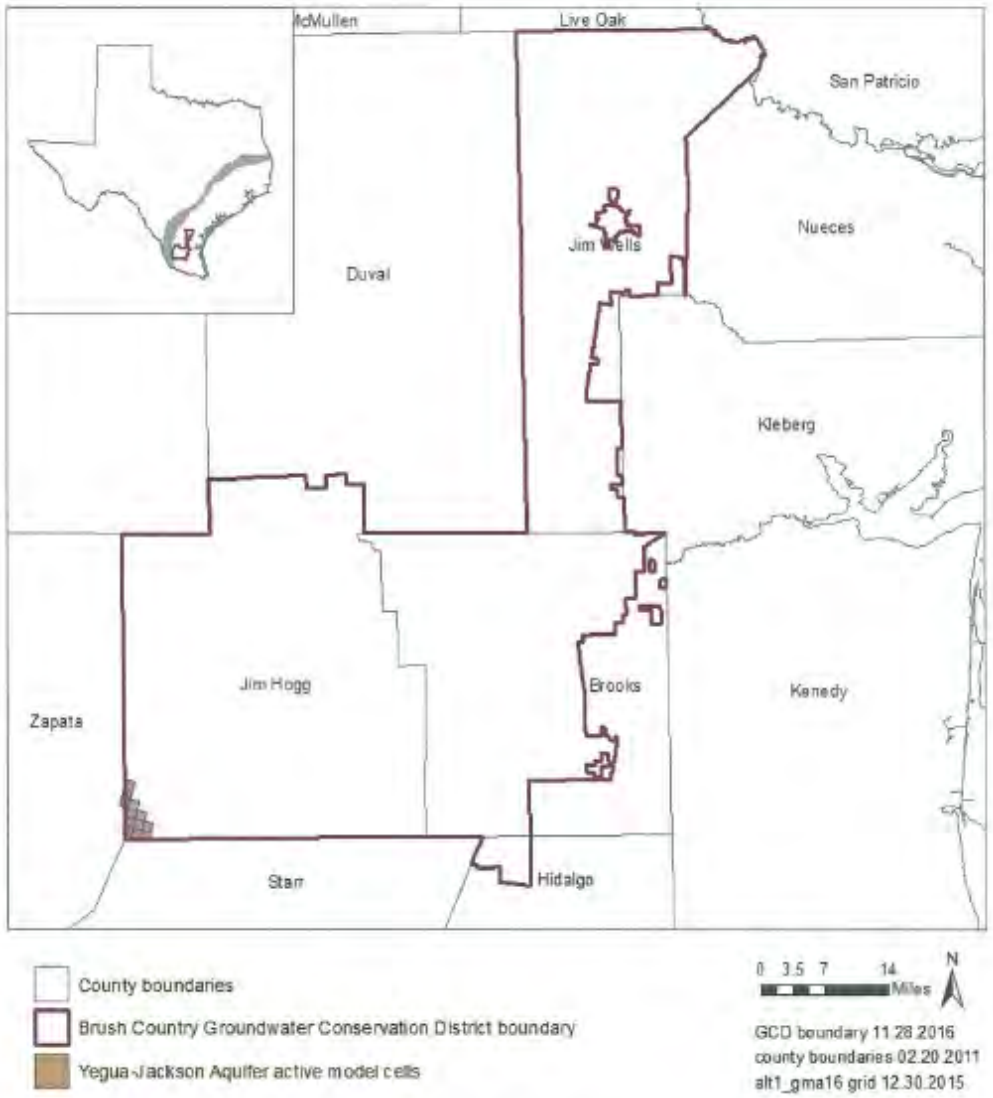

FIGURE 2. AREA OF THE ALTERNATIVE NUMERICAL GROUNDWATER FLOW MODEL FOR THE GULF COAST AQUIFER IN GROUNDWATER MANAGEMENT AREA 16 FROM WHICH THE INFORMATION IN TABLE 2 WAS EXTRACTED (THE YEGUA-JACKSON AQUIFER SYSTEM EXTENT WITHIN THE DISTRICT BOUNDARY).

LIMITATIONS:

The groundwater models used in completing this analysis are the best available scientific tools that can be used to meet the stated objectives. To the extent that this analysis will be used for planning purposes and/or regulatory purposes related to pumping in the past and into the future, it is important to recognize the assumptions and limitations associated with the use of the results. In reviewing the use of models in environmental regulatory decision making, the National Research Council (2007) noted:

> *"Models will always be constrained by computational limitations, assumptions, and knowledge gaps. They can best be viewed as tools to help inform decisions rather than as machines to generate truth or make decisions. Scientific advances will never make it possible to build a perfect model that accounts for every aspect of reality or to prove that a given model is correct in all respects for a particular regulatory application. These characteristics make evaluation of a regulatory model more complex than solely a comparison of measurement data with model results."*

A key aspect of using the groundwater model to evaluate historic groundwater flow conditions includes the assumptions about the location in the aquifer where historic pumping was placed. Understanding the amount and location of historic pumping is as important as evaluating the volume of groundwater flow into and out of the district, between aquifers within the district (as applicable), interactions with surface water (as applicable), recharge to the aquifer system (as applicable), and other metrics that describe the impacts of that pumping. In addition, assumptions regarding precipitation, recharge, and interaction with streams are specific to particular historic time periods.

Because the application of the groundwater models was designed to address regional-scale questions, the results are most effective on a regional scale. The TWDB makes no warranties or representations related to the actual conditions of any aquifer at a particular location or at a particular time.

It is important for groundwater conservation districts to monitor groundwater pumping and overall conditions of the aquifer. Because of the limitations of the groundwater model and the assumptions in this analysis, it is important that the groundwater conservation districts work with the TWDB to refine this analysis in the future given the reality of how the aquifer responds to the actual amount and location of pumping now and in the future. Historic precipitation patterns also need to be placed in context as future climatic conditions, such as dry and wet year precipitation patterns, may differ and affect groundwater flow conditions.

REFERENCES:

Harbaugh, A. W., 2009, Zonebudget Version 3.01, A computer program for computing subregional water budgets for MODFLOW ground-water flow models: U.S. Geological Survey Groundwater Software.

Harbaugh, A. W., Banta, E. R., Hill, M. C., and McDonald, M. G., 2000, MODFLOW-2000, the U.S. Geological Survey modular ground-water model -- User guide to modularization concepts and the Ground-Water Flow Process: U.S. Geological Survey Open-File Report 00-92, 121 p.

Hutchison, W. R., Hill, M. E., Anaya, R., Hassan, M. M., Oliver, W., Jigmond, M., Wade, S., and Aschenbach, E., 2011, Groundwater Management Area 16 Groundwater Flow Model, 306 p. http://www.twdb.texas.gov/groundwater/models/alt/gma16/GMA16_Model_Report_DRAFT.pdf.

National Research Council, 2007, Models in Environmental Regulatory Decision Making Committee on Models in the Regulatory Decision Process, National Academies Press, Washington D.C., 287 p., http://www.nap.edu/catalog.php?record_id=11972.

Wade, S. C., 2012, GAM Run 12-013: Brush Country Groundwater Conservation District Management Plan, 12 p., http://www.twdb.texas.gov/groundwater/docs/GCD/brushgcd/brushgcd_mgmt_plan2013.pdf.

APPENDIX J

RULES OF THE BRUSH COUNTRY GROUNDWATER CONSERVATION DISTRICT

Amended:	**Effective Date:**
	August 26, 2013
September 22, 2015	**September 22, 2015**

TABLE OF CONTENTS

INTRODUCTION

The Brush Country Groundwater Conservation District ("District") was created by the 81st Texas Legislature, Regular Session, in 2009 with the enactment of Senate Bill 2456 (now codified as Chapter 8852 Texas Special District Local Laws Code). The creation of the District was confirmed by the citizens located within the District's boundaries in Jim Hogg, Jim Wells, Brooks, and Hidalgo Counties at an election held on November 3, 2009.

The District's boundaries consist of the entire territory within Jim Hogg County, the area within Jim Wells County that is not within the Kenedy County Groundwater Conservation District and outside the corporate limits of the City of Alice existing as of January 1, 2009, the area of Brooks County not within the Kenedy County Groundwater Conservation District, and a portion of northern Hidalgo County.

The District strives to preserve and protect the groundwater resources within its boundaries. The District recognizes that groundwater conservation districts are the state's preferred method of groundwater management in order to protect private property rights, balance the conservation and development of groundwater to meet the needs of this state and use the best available science in the conservation and development of groundwater. The District will work with local stakeholders towards achieving its objectives. The District will accomplish its objectives by working to lessen interference between water wells, minimize drawdown of groundwater levels, prevent the waste of groundwater, and reduce the degradation of groundwater quality within the District while helping the local economies maintain and improve their current condition. The District will also use the authority granted in its Enabling Act and applicable state laws to protect and maintain the groundwater resources of the District.

RULE 1. DEFINITIONS AND GENERAL PROVISIONS

RULE 1.1. DEFINITIONS

In the administration of its duties, the District follows the definitions of terms set forth in the District Act, Chapter 36 of the Texas Water Code, and other definitions as follows:

1. "Acre-foot" means the amount of water necessary to cover one acre of land one foot deep, or about 326,000 gallons of water.

2. "Agricultural use" means any use or activity involving agriculture, including irrigation.

3. "Agriculture" means any of the following activities:

    A. Cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

B. The practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower;

C. Raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

D. Planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; and

E. Raising or keeping equine animals.

4. "Best available science" means conclusions that are logically and reasonable derived using statistical or quantitative data, techniques, analyses, and studies that are publicly available to reviewing scientists and can be employed to address a specific scientific question.

5. "Board" means the board of directors of the district.

6. "Commission" means the Texas Commission on Environmental Quality or TCEQ.

7. "Conjunctive use" means the combined use of groundwater and surface water sources that optimizes the beneficial characteristics of each source.

8. "Desired future condition" means a quantitative description, adopted in accordance with Water Code Section 36.108, of the desired condition of the groundwater resources in a management area at one or more specified future times.

9. "Director" means a member of the board.

10. "Discharge" means the amount of water that leaves an aquifer by natural or artificial means.

11. "District" means the Brush Country Groundwater Conservation District created under Section 59, Article XVI, Texas Constitution.

12. "District Act" means the District's enabling legislation now codified as Chapter 8852, Texas Special District and Local Laws Code.

13. "Domestic use" means:

A. The use of groundwater by an individual or a household to support domestic activities, including the use of groundwater for:

1. Drinking, washing, or culinary purposes;

2. Irrigating a lawn or a family garden or orchard;

3. Watering domestic animals; or

4. Water recreation, including aquatic and wildlife enjoyment.

B. Does not include the use of water:

1. To support an activity for which consideration is given or received or for which the product of the activity is sold; or

2. By or for a public water system.

14. "Drilling Permit" means a permit issued by the District authorizing the drilling, and installation of a non-exempt well.

15. "Evidence of historic or existing use" means evidence that is material and relevant to a determination of the amount of groundwater beneficially used without waste by a permit applicant during the relevant time period set by district rule that regulates groundwater based on historic use. Evidence in the form of oral or written testimony shall be subject to cross-examination. The Texas Rules of Evidence govern the admissibility and introduction of evidence of historic or existing use, except that evidence not admissible under the Texas Rules of Evidence may be admitted if it is of the type commonly relied upon by reasonably prudent persons in the conduct of their affairs.

16. "Executive administrator" means the executive administrator of the Texas Water Development Board.

17. "Executive director" means the executive director of the Commission.

18. "Exempt well" means a water well that is not required to obtain an operating permit.

19. "Existing Well" means any well in the District that was drilled or properly completed on or before the adoption of the Brush Country Groundwater Conservation District Rules.

20. "Federal conservation program" means the Conservation Reserve Program of the United States Department of Agriculture, or any successor program.

21. "Groundwater" means water percolating below the surface of the earth.

22. "Groundwater reservoir" means a specific subsurface water-bearing reservoir having ascertainable boundaries containing groundwater.

23. "Inflows" means the amount of water that flows into an aquifer from another formation.

24. "Livestock use" means the use of groundwater for the open-range watering of livestock, exotic livestock, game animals, or fur-bearing animals. For purposes of this subdivision, "livestock" and "exotic livestock" have the meanings assigned by Sections 1.003 and 142.001, Agriculture Code, respectively, and "game animal" and "fur-bearing animal" have the meanings assigned by Sections 63.001 and 71.001, Parks and Wildlife Code, respectively. Livestock use does not include use by or for a public water system.

25. "Modeled available groundwater" means the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition.

26. "Non-Exempt Well" means a water well that is required to obtain an operating permit.

27. "Nursery grower" means a person who grows more than 50 percent of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, "grow" means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

28. "Owner" means any person, firm partnership or corporation that has the right to produce water from the land either by ownership, contract, lease, easement, or any other estate in the land.

29. "Person" means any individual, partnership, firm, corporation, organization, government or governmental subdivision or agency, business trust, estate, trust, association, or any other legal entity.

30. "Production Limit" means a numerical limitation on the annual amount of Groundwater authorized to be produced under an Operating Permit. The Production Limit is generally expressed in acre-feet per year or gallons per year.

31. "Operating Permit" means a permit issued by the District authorizing the operation of and production from a non-exempt well.

32. "Public water supply well" means a well that produces the majority of its water for use by a public water system.

33. "Recharge" means the amount of water that infiltrates to the water table of an aquifer.

34. "Small commercial well" means a well equipped with a pump rated at 1.5 horsepower or less used for commercial purposes.

35. “Small privately-owned water system” means a system that is privately-owned, located on private property that has not been subdivided, and that is used to supply water service to the landowner, the landowner’s family, employees, or invitees solely for domestic and livestock purposes.

36. “Subdivision of a groundwater reservoir” means a definable part of a groundwater reservoir in which the groundwater supply will not be appreciably affected by withdrawing water from any other part of the reservoir, as indicated by known geological and hydrological conditions and relationships and on foreseeable economic development at the time the subdivision is designated or altered.

37. “Subsidence” means the lowering in elevation of the land surface caused by withdrawal of groundwater.

38. “Total aquifer storage” means the total calculated volume of groundwater that an aquifer is capable of producing.

39. “Transport” means transferring or exporting out of the District Groundwater that is authorized by a District Permit. The Terms “transfer” or “export” of groundwater are used interchangeably within Chapter 36 and these Rules.

40. “Use for a beneficial purpose” means use for:

    A. Agricultural, gardening, domestic, stock raising, municipal, mining, manufacturing, industrial, commercial, recreational, or pleasure purposes;

    B. Exploring for, producing, handling, or treating oil, gas, sulphur, or other minerals; or

    C. Any other purpose that is useful and beneficial to the user.

41. “Variance” means an authorized exception to requirements or provisions of the Rules that is approved by the District in accordance with Rule 1.2.

42. “Waste” means any one or more of the following:

    A. Withdrawal of groundwater from a groundwater reservoir at a rate and in an amount that causes or threatens to cause intrusion into the reservoir of water unsuitable for agricultural, gardening, domestic, or stock raising purposes;

    B. The flowing or producing of wells from a groundwater reservoir if the water produced is not used for a beneficial purpose;

    C. Escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;

D. Pollution or harmful alteration of groundwater in a groundwater reservoir by saltwater or by other deleterious matter admitted from another stratum or from the surface of the ground;

E. Willfully or negligently causing, suffering, or allowing groundwater to escape into any river, creek, natural watercourse, depression, lake, reservoir, drain, sewer, street, highway, road, or road ditch, or onto any land other than that of the owner of the well unless such discharge is authorized by permit, rule, or order issued by the commission under Chapter 26;

F. Groundwater pumped for irrigation that escapes as irrigation tailwater onto land other than that of the owner of the well unless permission has been granted by the occupant of the land receiving the discharge; or

G. For water produced from an artesian well, "waste" has the meaning assigned by Section 11.205.

43. "Water" means groundwater.

44. "Water Well" or "Well" means an artificial excavation constructed to explore for or produce groundwater. It also includes an abandoned oil or gas well that can be conditioned for usable quality groundwater production. The term does not include a test or blast hole in a quarry or mine or a well or excavation constructed to explore for or produce oil, gas, or other minerals or an injection water source well associated with permitted oil and gas or other mineral extraction activities that penetrates the base of usable quality water.

RULE 1.2. VARIANCE

Any exceptions or variances to the requirements imposed by District Rules shall be considered on a case-by-case basis. A request for variance shall be submitted in writing and include reasons for the request. A variance from any requirements contained in a permit requires a permit amendment. A variance will not be granted unless approved by a two-thirds vote of the full membership of the Board.

RULE 2. WASTE AND BENEFICIAL USE

RULE 2.1. WASTE PREVENTION

A. Groundwater shall not be produced within, or used within or outside of the District, in such a manner as to constitute waste as defined in these Rules.

B. No person shall pollute or harmfully alter the character of the underground water reservoir of the District by means of salt water or other deleterious matter admitted from some other stratum or strata from the surface of the ground.

C. No person shall commit waste as that term is defined in Section 1.1(42).

RULE 2.2. USE FOR A BENEFICIAL PURPOSE

A. Agricultural, gardening, domestic, stock raising, municipal, mining, manufacturing, industrial, commercial, recreational, or pleasure purposes.

B. Exploring for, producing, handling, or treating oil, gas, sulphur, or other minerals.

C. Any other purpose that is nonspeculative, useful and beneficial to the user.

RULE 2.3. ORDERS TO PREVENT WASTE/POLLUTION

After providing notice to affected parties and opportunity for a hearing, the Board may adopt orders to prohibit or prevent waste or pollution. If the factual basis for the order is disputed, the Board shall direct that an evidentiary hearing be conducted prior to entry of the order. If the General Manager determines that an emergency exists, requiring the immediate entry of an order to prohibit waste or pollution and protect the public health, safety, and welfare, the Board or the General Manager, subject to the review and direction of the Board, may enter a temporary order without notice and hearing provided, however, the temporary order shall continue in effect for the lesser of fifteen (15) days or until a hearing can be conducted.

RULE 3. RULEMAKING

A. The district may make and enforce rules, including rules limiting groundwater production based on tract size or the spacing of wells, to provide for conserving, preserving, protecting, and recharging of the groundwater or of a groundwater reservoir or its subdivisions in order to control subsidence, prevent degradation of water quality, or prevent waste of groundwater and to carry out the powers and duties provided by this chapter. In adopting a rule, the district shall:

1. Consider all groundwater uses and needs;

2. Develop rules that are fair and impartial;

3. Consider the groundwater ownership and rights;

4. Consider the public interest in conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and in controlling subsidence caused by

withdrawal of groundwater from those groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution;

5. Consider the goals developed as part of the district's management plan; and

6. Not discriminate between land that is irrigated for production and land that was irrigated for production and enrolled or participating in a federal conservation program.

B. Any rule of the district that discriminates between land that is irrigated for production and land that was irrigated for production and enrolled or participating in a federal conservation program is void.

C. Not later than the 20th day before the date of a rulemaking hearing, the general manager or board shall:

1. Post notice in a place readily accessible to the public at the district office;

2. Provide notice to the county clerk of each county in the district;

3. Publish notice in one or more newspapers of general circulation in the counties in which the district is located;

4. Provide notice by mail, facsimile, or electronic mail to any person who has requested notice under Subsection (H); and

5. Make available a copy of all proposed rules at a place accessible to the public during normal business hours and, if the district has a website, post an electronic copy on a generally accessible Internet site.

D. The notice provided under Subsection (C) must include:

1. The time, date, and location of the rulemaking hearing;

2. A brief explanation of the subject of the rulemaking hearing; and

3. A location or Internet site at which a copy of the proposed rules may be reviewed or copied.

E. The Board President, or in his absence, a person appointed by the Board shall serve as the presiding officer who shall conduct a rulemaking hearing in the manner the presiding officer determines to be most appropriate to obtain information and comments relating to the proposed rule as conveniently and

expeditiously as possible. Comments may be submitted orally at the hearing or in writing within any deadline established by the District. The presiding officer may hold the record open for a specified period after the conclusion of the hearing to receive additional written comments.

F. Each person who participates in a rulemaking hearing to submit a hearing registration form stating:

1. The person's name;

2. The person's address; and

3. Whom the person represents, if the person is not at the hearing in the person's individual capacity.

G. The presiding officer shall prepare and keep a record of each rulemaking hearing in the form of an audio or video recording or a court reporter transcription.

H. A person may submit to the district a written request for notice of a rulemaking hearing. A request is effective for the remainder of the calendar year in which the request is received by the district. To receive notice of a rulemaking hearing in a later year, a person must submit a new request. An affidavit of an officer or employee of the district establishing attempted service by first class mail, facsimile, or e-mail to the person in accordance with the information provided by the person is proof that notice was provided by the district.

I. The District may use an informal conference or consultation to obtain the opinions and advice of interested persons about contemplated rules and may appoint advisory committees of experts, interested persons, or public representatives to advise the district about contemplated rules.

J. Failure to provide notice under Subsection (C)(4) does not invalidate an action taken by the District at a rulemaking hearing.

K. The presiding officer shall close the hearing record at the conclusion of the hearing.

RULE 4. EMERGENCY RULES

A. The board may adopt an emergency rule without prior notice or hearing, or with an abbreviated notice and hearing, if the board:

1. Finds that a substantial likelihood of imminent peril to the public health, safety, or welfare, or a requirement of state or federal law, requires adoption of a rule on less than 20 days' notice; and

2. Prepares a written statement of the reasons for its finding under Subsection A. 1.

B. Except as provided by Subsection (C), a rule adopted under this rule may not be effective for longer than 90 days.

C. If notice of a hearing on the final rule is given not later than the 90th day after the date the rule is adopted, the rule is effective for an additional 90 days.

RULE 5. ENFORCEMENT OF RULES, ORDERS, PERMITS

A. The district may enforce its rules, orders and permits against any person by injunction, mandatory injunction, or other appropriate remedy in a court of competent jurisdiction.

B. Any person who breaches any rule, order or permit of the District is subject to civil penalties not to exceed $10,000 per day per violation, and each day of a continuing violation constitutes a separate violation.

C. A penalty under this rule is in addition to any other penalty provided by the law of this state and may be enforced against any person by complaints filed in the appropriate court of jurisdiction in Brooks County.

D. If the district prevails in any suit to enforce its rules, orders, and permits, the District may seek and the court shall grant against any person, in the same action, recovery for attorney's fees, costs for expert witnesses, and other costs incurred by the District before the court in accordance with Section 36.066 Texas Water Code. The amount of the attorney's fees shall be fixed by the court.

E. In an enforcement action by the district against any person that is a governmental entity for a violation of district rules, the limits on the amount of fees, costs, and penalties that a district may impose under Sections 36.102, 36.122, or 36.205, Texas Water Code, or under the District Act, constitute a limit of liability of the governmental entity for the violation. This subsection shall not be construed to prohibit the recovery by a district of fees and costs in an action against any person that is a governmental entity.

RULE 6. REGISTRATION, RECORDS, AND REPORTS

A. All water wells within the District must be registered. There is no fee for registering existing wells. Upon receipt of a completed application, the District will determine if the well is exempt or non-exempt. A non-exempt well shall not be drilled or operated prior to District approval of an operating permit, except as provided under Rule 9.

B. Except as provided in subsections below, all non-exempt wells are required to be equipped with a meter. An owner or operator of a water well that is required to be registered with or permitted by the district, except for the owner or operator of a well that is exempt from permit requirements, must record meter readings monthly and report groundwater withdrawals annually. The monthly water production records shall be submitted to the District on an annual basis on January 31st of each year for the previous 12 months, unless the District imposes alternate recordkeeping and reporting requirements in the Operating Permit for the Well.

1. The following wells may be excepted from the water meter requirements at the Board's discretion only if the wells use an alternative measuring method or device as authorized and approved by the Board:

    a. Agriculture wells with pumps having discharge pipes of 3" diameter or less with estimated pumpage of six million gallons per year or less and that are not connected with any other well; and

    b. Agriculture wells with pumps having discharge pipes of 3" diameter or less in aggregate systems where the aggregate system has an estimated pumpage of six million gallons per year or less.

2. If evidence presented to the Board indicates that the well or wells do not meet the discharge pipe diameter or pumpage requirements of these exceptions, or where there is no reasonable basis for determining the pumpage, the Board may require that water meters be installed within a specified time period.

C. Accurate drillers' logs must be kept of water wells and copies of drillers' logs and electric logs must be filed with the District.

D. Registration shall include the following information, submitted on forms provided by the District, and any other information the General Manager may determine to be needed.

1. Name, address, phone number, email, and fax number of the well owner. If the applicant is not the landowner, include the name, address, phone number, email and fax number of the landowner and documentation establishing the authority of the applicant to drill and operate the well;

2. If known, the latitude and longitude of the well;

3. Casing size, well depth, depth to screen bottom, pump size, and production capability; and

4. Proposed use of well.

RULE 7. PERMIT REQUIRED, PERMIT AMENDMENTS, APPLICATION

A. No person, firm, or corporation may drill a non-exempt well without first obtaining a drilling permit from the District.

B. No person, firm, or corporation may alter the size of a non-exempt well or well pump such that it would bring that well under the jurisdiction of the district without first obtaining a permit from the District.

C. No person, firm, or corporation may operate a non-exempt well without first obtaining an operating permit from the District.

D. A violation occurs on the first day the drilling, alteration, or operation begins and continues each day thereafter until the appropriate permits are approved.

E. Except as exempted under the rules, the District requires a permit for:

1. Drilling, which allows drilling a new well, expanding an existing well, redrilling or re-equipping an existing well, or plugging a well;

2. Operating, which allows water to be withdrawn from a non-exempt well;

3. Multiple wells that are part of an aggregate system that are owned and operated by the same permittee and serve the same subdivision, facility, or area served by a TCEQ issued Certificate of Convenience and Necessity may be authorized under a single permit. Separate drilling authorization applications shall be submitted for each well and the District will require separate records of each well's location and characteristics. Geographic location of wells and integrated distribution systems will be considered in determining whether or not to allow aggregation. For the purpose of categorizing wells by the amount of groundwater production, when wells are permitted with an aggregate withdrawal, the aggregate value shall be

assigned to the group, rather than allocating to each well its prorated share or estimated production;

4. Transport, which allows groundwater to be transported outside the boundaries of the District; and,

5. ASR recovery wells that are associated with an aquifer storage and recovery project if the amount of groundwater recovered from the wells exceeds the volume authorized by the TCEQ to be recovered under the project.

F. Permit Amendments are classified as minor amendments or major amendments. Minor amendments include the type of permit amendment applications listed in Rule 12.C. A minor amendment may be processed in accordance with Rule 12.C without notice and hearing. All other amendments are major amendments and may be processed in accordance with Rule 12.D with notice and opportunity for hearing.

G. The District does not require a permit or a permit amendment for maintenance or repair of a well if the maintenance or repair does not increase the production capabilities of the well to more than its authorized or permitted production rate.

H. An application for a permit or a permit amendment must be in writing in a form provided by the District and sworn to.

I. The following shall be included in the permit or permit amendment application:

1. The name and mailing address of the applicant and the owner of the land on which the well will be located;

2. If the applicant is other than the owner of the property, documentation establishing the applicable authority to construct and operate a well for the proposed use;

3. A statement of the nature and purpose of the proposed use and the amount of water to be used for each purpose;

4. A water conservation plan or a declaration that the applicant will comply with the District's management plan;

5. The location of each well and the estimated rate at which water will be withdrawn;

6. A water well closure plan or a declaration that the applicant will comply with well plugging guidelines and report closure to the District and all other appropriate agencies;

7. A drought contingency plan, if required by the Board; and

8. A statement of the projected effect of the proposed withdrawal on the aquifer or aquifer conditions, depletions, subsidence, or effects on existing permit holders or other groundwater users in the District:

   a. If the Board or the General Manager, subject to the review and direction of the Board, deems it necessary based upon the location of and the number of wells and the volume of requested pumpage, the applicant must submit a hydrogeological report prepared by a licensed geoscientist or engineer that evaluates the following parameters: rate of yield and drawdown, specific capacity, well efficiency, transmissivity, hydraulic, conductivity, recharge or barrier boundaries, aquifer thickness, and any other information required by the District;

   b. If a hydrological report is required, the following calculations will be included:

      i. Time drawdown at the property boundary at five year intervals for a 30 year period;

      ii. Distance drawdown. The distance from the pumped well to the outer edges of the cone of depression; and

      iii. Well interference.

9. Name and addresses of well owners within ½ mile radius of the location of the proposed well.

J. Notice of application is governed as provided within these Rules. Applicants must publish notice for any application described under Rule 12.D for which the District provides an opportunity for a hearing. Such notices shall be published by the Applicant, when directed by the District, in a newspaper designated by the District for the publication of legal notices in the county where the permit is issued in a form and content approved by the District. All permit applications described above must provide notice by certified mail, return receipt requested, to all property owners within a half (1/2) mile radius of the well that is the subject of the application. Notification of any property owner served by a retail public water utility is not required of any applicant if notice is provided to the retail public water utility. Applicants may not publish notice until the Board or the General

Manager, subject to the review and direction of the Board, determines the application is administratively complete.

RULE 8. CRITERIA FOR ISSUANCE AND ELEMENTS OF PERMIT

A. Before granting or denying a permit or permit amendment, the District shall consider whether:

1. The application conforms to the requirements prescribed by these rules and is accompanied by the prescribed fees;

2. The proposed use of water unreasonably affects existing groundwater and surface water resources or existing permit holders;

3. The proposed use of water is dedicated to any beneficial use;

4. The proposed use of water is consistent with the District's approved management plan;

5. The maximum allowable production, if any;

6. The applicant has agreed to avoid waste and achieve water conservation; and

7. The applicant has agreed that reasonable diligence will be used to protect groundwater quality and that the applicant will follow well plugging guidelines at the time of well closure.

B. A permit issued by the District to the applicant under these rules shall state the terms and provisions prescribed by the District.

C. The permit will include:

1. The name and address of the person to whom the permit is issued;

2. The location of the well;

3. The date the permit is to expire if no well is drilled;

4. A statement of the purpose for which the well is to be used;

5. A requirement that the water withdrawn under the permit be put to beneficial use at all times;

6. The location of the use of the water from the well;

7. A water well closure plan or a declaration that the applicant will comply with well plugging guidelines and report closure to the District and other appropriate agencies;

8. The conditions and restrictions, if any, placed on the rate and amount of withdrawal;

9. Any conservation-oriented methods of drilling and operating prescribed by the district;

10. Any maximum allowable production;

11. A drought contingency plan prescribed by the district; and

12. Other terms and conditions as provided by the District rules.

RULE 9. PERMITS FOR EXISTING WELLS.

A. Any well existing on or before the effective date of these rules August 26, 2013, which has not been permitted, is not used for the transport of water outside the District, and which is not exempted from permitting under Rule 14, is entitled to obtain a permit from the District in the manner provided by this Rule.

B. Applications for permits for existing nonexempt wells must be filed with the District. Any owner of an existing nonexempt well who failed to apply within 90 days of the effective date of the Rules may make application for a permit pursuant to this Rule; provided, however, if the well was in operation during the period from August 26, 2103 until the application was made, in addition to the normal requirements, past production fees, if any, shall be paid for each year of operation. Upon written request of the well owner or permittee, the Board may waive any or all past due fees.

Upon completion of a sworn application providing the completion date, capacity, location, water use, and such other information as may be required by the District, and upon payment of any application processing fee, any current annual production fee, and any required past production fees, the District will issue a permit to the applicant. The annual production limit will be the highest amount produced from the well without waste during the five years prior to August 26, 2013, based on information submitted with the application.

RULE 10. MAXIMUM ALLOWABLE PRODUCTION

A. The amount of annual maximum production specified in the operating permit for a non-exempt may be up to 2.5 acre feet per contiguous surface acres owned or operated by the applicant, unless a smaller amount is requested. Applicants may request that greater amounts of production per surface acre per acre be authorized provided the applicant can demonstrate to the District's satisfaction that local hydrogeological conditions will allow the withdrawal of a greater amount of groundwater per annum without negatively affecting water levels of adjoining properties or otherwise interfering with an adjacent landowner's ability to withdraw and use groundwater. If necessary, the Board may adjust downward the maximum allowable production upon permit renewal to achieve the desired future conditions under Section 10 (B) below. In establishing the maximum allowable production for a retail public water utility, the District will consider the service needs and service area of the retail public water utility in addition to or in lieu of surface area owned or operated by the retail public water utility.

B. In issuing permits, the District shall manage total groundwater production on a long-term basis to achieve the desired future condition and the District will also consider:

1. The modeled available groundwater determined by the executive administrator of the Texas Water Development Board;

2. The executive administrator's estimate of the current and projected amount of groundwater produced under exemptions granted by district rules;

3. The amount of groundwater authorized under permits previously issued by the District;

4. A reasonable estimate of the amount of groundwater that is actually produced under permits issued by the District; and

5. Yearly precipitation and production patterns.

C. In order to protect the public health and welfare and to conserve and manage the groundwater resources in the District during times of drought, the District may pro-rate groundwater use, place special requirements on, modify, delay, or deny a permit for a new well during a District-declared drought.

D. The District may impose more restrictive permit conditions on new permit applications and increased use by historic users if the limitations:

1. Apply to all subsequent new permit applications and increased use by historic users, regardless of type or location of use;

2. Bear a reasonable relationship to the existing District Management Plan; and

3. Are reasonably necessary to protect existing use.

RULE 11. PERMIT TERM

A. A drilling permit for a well will automatically expire with one year from its issuance if the well is not significantly under development.

B. Unless otherwise specified by the Board of Directors or these rules, an operating permit is effective for a period of five years from the issue date. If renewed, such permits shall thereafter be effective for five year terms from the initial expiration date unless otherwise specified by the Board. The permit terms will be shown in the permit. A permit applicant requesting a permit term longer than five years must substantiate its reason for the longer term and its need to put groundwater to beneficial use throughout the proposed permit term.

C. The Board or General Manager, subject to the review and direction of the Board, will normally renew a permit for wells without an application for renewal or a hearing if:

1. The terms and conditions of the permit (including maximum authorized withdrawal) are not changed in a manner that requires a permit amendment under these rules;

2. The permittee is in compliance or has a compliance agreement with all terms of the permit and paid any required civil penalties;

3. The permittee has resolved all enforcement actions, if any, for the permit and the permit is not subject to a pending enforcement action for a substantive violation of a District permit, order, or rule that has not been settled by agreement with the District or a final adjudication; and

4. the permittee is not delinquent in paying any required fees in accordance with District rules.

Notwithstanding the above, all renewals remain subject to any new criteria or pumping limitations established by the Board of Directors.

If the District is not required to renew a permit because of a substantive violation under Subsection C.3. above, the permit remains in effect until the final settlement or adjudication on the matter of the substantive violation.

D. After notice and an opportunity for a hearing, the Board may renew the permit with a reduced amount of the authorized production if the authorized withdrawal volume is no longer commensurate with reasonable non-speculative demand or actual production from a well is substantially less than the authorized permit amount for multiple years without any rationale that reasonably relates to efforts to utilize alternative water supplies, conserve, or improve water use efficiency.

E. Changes in Operating Permits.

1. If the holder of an operating permit, in connection with the renewal of a permit or otherwise, requests a change that requires an amendment to the permit under District rules, the permit as it existed before the permit amendment process remains in effect until the later of:

a. The conclusion of the permit amendment or renewal process, as applicable; or

b. Final settlement or adjudication on the matter of whether the change to the permit requires a permit amendment.

2. If the permit amendment process results in the denial of an amendment, the permit as it existed before the permit amendment process shall be renewed under Subsection C above without penalty, unless Subsection C(3) above applies to the applicant.

3. A district may initiate an amendment to an operating permit, in connection with the renewal of a permit or otherwise, in accordance with the District rules. If the District initiates an amendment to an operating permit, the permit as it existed before the permit amendment process shall remain in effect until the conclusion of the permit amendment or renewal process, as applicable.

RULE 12. TIMING OF ACTION ON APPLICATION

A. An administratively complete application requires information set forth in accordance with these rules. The General Manager or Board will determine administrative completeness and an applicant will be notified when a well is administratively complete. The application will expire if the information requested in the application is not provided to the District within 60 days of written request.

B. The District shall promptly consider and act on each administratively complete application for a permit or permit amendment or, if within 60 days after the date

an administratively complete application is submitted, the application has not been acted on or set for a hearing on a specific date, the applicant may petition the district court of the county where the land is located for a writ of mandamus to compel the district to act on the application or set a date for a hearing on the application, as appropriate.

C. The following permit or permit amendment applications shall be approved by the Board without notice and hearing under Rule 19 or further action by the Board:

1. Non-substantive corrections or administrative amendments to any permit;

2. Applications requesting maximum production rate for a well of 25 gallons per minute or less;

3. Change in the name or address of the well owner or well operator;

4. Decrease the maximum authorized withdrawal;

5. Increase the maximum authorized withdrawal by ten percent or less of the total permitted production for users permitted for more than 25 gallons per minute so long as there have not been similar amendments in the past two years;

6. Increase the maximum authorized withdrawal by up to 5 gallons per minute for users permitted for 25 gallons per minute or less;

7. Convert two or more wells individually permitted by the same permittee into an aggregate system under one permit so long as production amounts are not increased above the total volumes authorized under the individual permits;

8. Change the depth of a water well;

9. Change the depth of the bottom of the screen of a water well;

10. Change the well pump if the change results in an increase in the production rate less than or equal to amounts described in Rule 12.C.5 and 6 above;

11. Change in purpose of use and no change in withdrawal amount or in connection with a change in withdrawal within the amounts described under Rule 12C.5 and 6 above; and,

12. Permit an existing well under Rule 9.

D. The following permit or permit amendment applications require an opportunity for a hearing:

1. Applications requesting a withdrawal rate of more than 25 gpm, except for applications to permit existing wells under Rule 9;

2. Transport of water outside of the District in connection with an existing or new well;

3. Increase the maximum authorized withdrawal by ten percent or more of the total permitted production for users permitted for more than 25 gallons per minute;

4. Applications requesting a variance from these Rules;

5. Change in purpose of use in connection with a change in withdrawal within the amounts described under Rule 12D.1 and 3 above;

6. ASR recovery wells that are associated with an aquifer storage and recovery project if the amount of groundwater recovered from the wells exceeds the volume authorized by the TCEQ to be recovered under the project; and,

7. Any other application the Board determines should have an opportunity for a hearing.

E. For permit and permit amendment applications requiring an opportunity for a hearing and the Board grants a hearing, the initial hearing shall be held within 35 days after the date the hearing is granted.

F. The Board shall act on the application within 60 days after the date the final hearing on the application is concluded.

G. The hearing shall be conducted in accordance with Rule 19.

RULE 13. REGULATION OF SPACING AND PRODUCTION

A. In order to minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure, to control subsidence, to prevent interference between wells, to prevent degradation of water quality, or to prevent waste, the District regulates well spacing.

B. All wells drilled prior to the effective date of these Rules, shall be drilled in accordance with state law in effect, if any, on the date such drilling commenced.

C. All new wells drilled after the effective date of these rules must comply with the construction, spacing and location requirements set forth under the Texas Water Well Drillers and Pump Installers Administration Rules, Title 16, Part 4, Chapter 76, Texas Administrative Code, unless a written variance is granted by the Texas Department of Licensing and Regulation and a copy of the variance is forwarded to the District by the applicant or registrant.

D. After authorization to drill a well has been granted under a registration or a permit, the well, if drilled, must be drilled within ten (10) yards (30 feet) of the location specified in the permit, and not elsewhere. If the well should be commenced or drilled at a different location, the drilling or operation of such well may be enjoined by the Board pursuant to Chapter 36, Texas Water Code, and these Rules.

E. In addition to the requirements of subsection (c), nonexempt wells with an inside casing diameter of eight (8) inches or greater may be required to satisfy greater spacing distances and requirements to prevent interference between wells and impacts to neighboring wells and such requirements shall be determined based on a hydrogeological report prepared by a licensed geoscientist or engineer submitted with the application for the well, unless waived by the Board. The Board may, among other things, require wells to be spaced a certain distance from property lines or adjoining wells. Replacement wells drilled within 200 feet of existing well, which is to be replaced, are not required to conduct a hydrogeological test.

RULE 14. EXEMPT WELLS

A. The District provides an exemption from the District requirement to obtain a permit for:

1. Drilling or operating a well used solely for domestic use or for providing water for wildlife, livestock or poultry;

2. Drilling or operating a water well used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas provided that the person holding the permit is responsible for drilling and operating the water well and the water well is located on the same lease or field associated with the drilling rig;

3. Drilling or operating a water well authorized under a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources

Code, or for production from the well to the extent the withdrawals are required for mining activities regardless of any subsequent use of the water;

4. Drilling or operating a well used for agricultural purposes, if the well does not exceed annual production of one acre-foot per contiguous surface acre owned or operated by the well owner;

5. Drilling or operating a small commercial well;

6. Drilling or operating a well used for a privately-owned small water system;

7. Drilling a hole or operating a water well authorized under a permit issued by the Railroad Commission of Texas under Chapter 131, Natural Resources Code, associated with uranium exploration activities;

8 Drilling a hole or operating a water well authorized under a permit issued by the Texas Commission on Environmental Quality regulation 30 TAC, Underground Injection Control; or,

9. A water well drilled and completed solely for the purposes of aquifer testing or for monitoring water levels or water quality.

B. The District may not restrict the production of water from any well described by Subsection (A)(1).

C. The District may cancel a previously granted exemption, and may require an operating permit for or restrict production from a well, if:

1. The groundwater withdrawals that were exempted under Subsection (A)(2) are no longer used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas;

2. The groundwater withdrawals that were exempted under Subsection (A)(3) are no longer necessary for mining activities or are greater than the amount necessary for mining activities specified in the permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code; or

3. The groundwater withdrawals that were exempted under Subsection (A)(1) are no longer used solely for domestic use or to provide water for livestock or poultry.

D. An entity holding a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code that authorizes the drilling of water well shall report monthly to the District:

1. The total amount of water withdrawn during the month;

2. The quantity of water necessary for mining activities; and

3. The quantity of water withdrawn for other purposes.

E. The District requires compliance with the District's well spacing rules for the drilling of any well except a well exempted under Subsection (A)(3), (7), (8) and (9).

F. The District may not deny an application for a permit to drill and produce water for hydrocarbon production activities if the application meets all applicable rules as promulgated by the District.

G. The district shall require the owner of a water well to:

1. Register the well in accordance with rules promulgated by the District;

2. Equip and maintain the well to conform to the District's rules requiring installation of casing, pipe, and fittings to prevent the escape of groundwater from a groundwater reservoir to any reservoir not containing groundwater and to prevent the pollution or harmful alteration of the character of the water in any groundwater reservoir; and

3. This Subsection G(3) does not apply to a well exempted under Subsection A(7), (8) and (9).

H. The driller of a well shall file with the District the well log required by Section 1901.251, Occupations Code, and, if available, the geophysical log. This Subsection H does not apply to a well exempted under Subsection A(7), (8) and (9).

I. An exemption provided under Subsection (A) does not apply to a well if the groundwater withdrawn is used to supply water for a subdivision of land for which a plat approval is required by Chapter 232, Local Government Code.

J. Groundwater withdrawn under an exemption provided in accordance with this rule and subsequently transported outside the boundaries of the district is subject to any applicable production and export fees provided under these rules and established by Board resolution. This provision does not apply to a well used for exempt agricultural purpose where water is transported outside the District for use

on land owned by the same landowner who owns and operates the well located within the District.

K. This rule applies to water wells, including water wells used to supply water for activities related to the exploration or production of hydrocarbons or minerals. This rule does not apply to production or injection wells drilled for oil, gas, sulphur, uranium, or brine, or for core tests, or for injection of gas, saltwater, or other fluids, under permits issued by the Railroad Commission of Texas.

RULE 15. OPEN OR UNCOVERED WELLS

A. The owner or lessee of land on which an open or uncovered well is located is required to keep the well permanently closed or capped with a covering capable of sustaining weight of at least 400 pounds, except when the well is in actual use.

B. As used in this rule, "open or uncovered well" means an artificial excavation dug or drilled for the purpose of exploring for or producing water from the groundwater reservoir and is not capped or covered as required by this rule.

C. If the owner or lessee fails or refuses to close or cap the well in with District rules, any person, firm, or corporation employed by the District may go on the land and close or cap the well safely and securely.

D. Reasonable expenses incurred by the District in closing or capping a well constitute a lien on the land on which the well is located.

E. The lien arises and attaches upon recordation in the deed records of the county where the well is located an affidavit, executed by any person conversant with the facts, stating the following:

1. The existence of the well;

2. The legal description of the property on which the well is located;

3. The approximate location of the well on the property;

4. The failure or refusal of the owner or lessee, after notification, to close the well within 10 days after the notification;

5. The closing of the well by the District, or by an authorized agent, representative, or employee of the District; and

6. The expense incurred by the district in closing the well.

F. Nothing in this rule affects the enforcement of Subchapter A, Chapter 756, Health and Safety Code.

RULE 16. TRANSFER OF GROUNDWATER OUT OF DISTRICT

A. If an application for a permit or an amendment to a permit under Rule 7 proposes the transfer of groundwater outside of the district's boundaries, the District may also consider the provisions of this rule in determining whether to grant or deny the permit or permit amendment.

B. The District may impose a reasonable fee, set by resolution, for processing an application under this rule. The fee may not exceed fees that the District imposes for processing other applications for a permit. An application filed to comply with this rule shall be considered and processed under the same procedures as other applications for permits and shall be combined with applications filed to obtain a permit for in-district water use from the same applicant.

C. The District may impose a fee or surcharge for an export fee, as set by resolution.

D. In reviewing a proposed transfer of groundwater out of the District, the District shall determine whether the proposed transfer would have a negative effect on:

1. The availability of water in the District;

2. The conditions of any aquifer that overlies the District;

3. Subsidence in the District;

4. Existing permit holders or other groundwater users in the District; and

5. Any applicable approved regional water plan or approved District management plan.

E. If the District determines under Subsection (d) that the transfer would have a negative effect, the District may impose other requirements or limitations on the permit, in addition to the conditions authorized by Section 36.122, Water Code, that are designed to minimize the effect.

F. In addition to conditions provided by Rule 8, the permit shall specify:

1. The amount of water that may be transferred out of the District; and

2. The period for which the water may be transferred.

G. The District may periodically review the amount of water that may be transferred under the permit and may limit the amount if additional factors considered in Subsection (d) warrant the limitation. The review described by this subsection may take place not more frequently than the period provided for the review or renewal of regular permits issued by the District. In its determination of whether to renew a permit issued under this rule, the District shall consider relevant and current data for the conservation of groundwater resources and shall consider the permit in the same manner it would consider any other permit in the District.

H. The District is prohibited from using revenues obtained under Subsection (c) to prohibit the transfer of groundwater outside of a District. The District is not prohibited from using revenues obtained under Subsection (c) for paying expenses related to enforcement of Water Code Chapter 36 or District rules.

I. In applying this rule, a district must be fair, impartial, and nondiscriminatory.

RULE 17. RIGHT TO ENTER LAND

A. The directors, engineers, attorneys, agents, operators, and employees of the District may go on any land to inspect, make surveys, or perform tests to determine the condition, value, and usability of the property, with reference to the proposed location of works, improvements, plants, facilities, equipment, or appliances. The cost of restoration shall be borne by the District.

B. District employees and agents are entitled to enter any public or private property within the boundaries of the District or adjacent to any reservoir or other property owned by the District at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the District. The District shall notify, coordinate, and schedule property access in advance with the consent of the property owner, his Agent, tenant, or other local contact. District employees or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection and shall notify any occupant or management of their presence and shall exhibit proper credentials.

RULE 18. DISTRICT FEES

A. The district may set fees for administrative acts of the district, such as filing applications. Fees set by a district may not unreasonably exceed the cost to the district of performing the administrative function for which the fee is charged. Administrative fees will be set by resolution.

B. The District shall set and collect fees for all services provided outside the boundaries of the district. The fees may not unreasonably exceed the cost to the District of providing the services outside the district. Fees for services provided outside the District will be set by resolution. Limitations established under this provision do not apply to fees set by the District under Section 16.C. above.

C. The District may assess production fees based on the amount of water authorized by permit to be withdrawn from a well or the amount actually withdrawn. The District may assess the fees in conjunction with taxes otherwise levied by the District. The District may use revenues generated by the fees for any lawful purpose. Production fees, if any, will be set by resolution and shall not exceed:

1. $1 per acre-foot payable annually for water used for agricultural use; or

2. $10 per acre-foot payable annually for water used for any other purpose.

RULE 19. NOTICE AND HEARING PROCESS

RULE 19.1. SCHEDULE OF HEARING

A. If after consideration of a request for hearing using the factors under Rule 19.13, the Board denies a hearing requested on an application noticed under Rule 7.J., the Board or the General Manager, subject to the review and direction of the Board, will grant the application and issue the permit or permit amendment.

B. If the Board grants a hearing requested under an application noticed under Rule 7.J., the Board will notice the hearing in accordance with Rule 19.2.

C. The general manager or board may schedule more than one permit or permit amendment application for consideration at a hearing.

D. A hearing must be held at the District office or regular meeting location of the board unless the board provides for hearings to be held at a different location. For a hearing conducted by SOAH, the District may hold the hearing in Travis County.

E. A hearing may be held in conjunction with a regularly scheduled board meeting.

RULE 19.2. NOTICE FOR HEARINGS SCHEDULED BY THE BOARD

A. If the general manager or board schedules a hearing on an application for a permit or permit amendment, the general manager or board shall give notice of the hearing as provided by this rule.

B. The notice must include:

1. The name of the applicant;

2. The address or approximate location of the well or proposed well;

3. A brief explanation of the proposed permit or permit amendment, including any requested amount of groundwater, the purpose of the proposed use, and any change in use;

4. The time, date, and location of the hearing; and

5. Any other information the general manager or board considers relevant and appropriate.

C. Not later than the 10th day before the date of a hearing, the general manager or board shall:

1. Post notice in a place readily accessible to the public at the District office;

2. Provide notice to the county clerk of each county in the District; and

3. Provide notice by:

a. Regular mail to the applicant;

b. Regular mail, facsimile, or electronic mail to any person who has requested notice under Subsection (D) below; and

c. Regular mail to any other person entitled to receive notice under the rules of the District.

D. A person may request notice from the District of a hearing on a permit or a permit amendment application. The request must be in writing and is effective for the remainder of the calendar year in which the request is received by the District. To receive notice of a hearing in a later year, a person must submit a new request. An affidavit of an officer or employee of the District establishing attempted service by first class mail, facsimile, or e-mail to the person in accordance with the information provided by the person is proof that notice was provided by the District.

E. Failure to provide notice under Subsection (C)(3)(b) does not invalidate an action taken by the District at the hearing.

RULE 19.3. HEARING REGISTRATION

The District requires each person who participates in a hearing to submit a hearing registration form stating:

A. The person's name;

B. The person's address; and

C. Whom the person represents, if the person is not there in the person's individual capacity.

RULE 19.4. HEARING PROCEDURES

A. A hearing must be conducted by:

1. A quorum of the board;

2. An individual to whom the board has delegated in writing the responsibility to preside as a hearings examiner over the hearing or matters related to the hearing; or

3. The State Office of Administrative Hearings under Rule 19.14.

B. Except as provided by Subsection (C) or Rule 19.14, the board president or the hearings examiner shall serve as the presiding officer at the hearing.

C. If the hearing is conducted by a quorum of the board and the board president is not present, the directors conducting the hearing may select a director to serve as the presiding officer.

D. The presiding officer may:

1. Convene the hearing at the time and place specified in the notice;

2. Set any necessary additional hearing dates;

3. Designate the parties regarding a contested application;

4. Establish the order for presentation of evidence;

5. Administer oaths to all persons presenting testimony;

6. Examine persons presenting testimony;

7. Ensure that information and testimony are introduced as conveniently and expeditiously as possible without prejudicing the rights of any party;

8. Prescribe reasonable time limits for testimony and the presentation of evidence;

9. Exercise the procedural rules adopted by the District;

10. Determine how to apportion among the parties the costs related to:

    a. A contract for the services of a presiding officer; and

    b. The preparation of the official hearing record.

E. Except as otherwise provided, the District may allow any person, including the general manager or a district employee, to provide comments at a hearing on an uncontested application.

F. The presiding officer may allow testimony to be submitted in writing and may require that written testimony be sworn to. On the motion of a party to the hearing, the presiding officer may exclude written testimony if the person who submits the testimony is not available for cross-examination by phone, a deposition before the hearing, or other reasonable means.

G. If the board has not acted on the application, the presiding officer may allow a person who testifies at the hearing to supplement the testimony given at the hearing by filing additional written materials with the presiding officer not later than the 10th day after the date of the hearing. A person who files additional written material with the presiding officer under this subsection must also provide the material, not later than the 10th day after the date of the hearing, to any person who provided comments on an uncontested application or any party to a contested hearing. A person who receives additional written material under this subsection may file a response to the material with the presiding officer not later than the 10th day after the date the material was received.

H. The presiding officer, at the presiding officer's discretion, may, but is not required to, issue an order at any time before board action on a permit application that:

1. Refers parties to a contested hearing to an alternative dispute resolution procedure on any matter at issue in the hearing;

2. Determines how the costs of the procedure shall be apportioned among the parties; and

3. Appoints an impartial third party as provided by Section 2009.053, Government Code, to facilitate that procedure.

I. In general, the burden of proof is on the moving party by a preponderance of the evidence, except in an enforcement proceeding, the General Manager has the burden of proving by a preponderance of the evidence the occurrence of any violation and the appropriateness of any proposed technical ordering provisions. The respondent in an enforcement proceeding has the burden of proving by a preponderance of the evidence all elements of any affirmative defense asserted. The permit applicant bears the burden of proof by a preponderance of the evidence in an application proceeding.

RULE 19.5. EVIDENCE

A. The presiding officer shall admit evidence that is relevant to an issue at the hearing.

B. The presiding officer may exclude evidence that is irrelevant, immaterial, or unduly repetitious.

RULE 19.6. RECORDING

A. Except as provided by Subsection (B), the presiding officer shall prepare and keep a record of each hearing in the form of an audio or video recording or a court reporter transcription. On the request of a party to a contested hearing, the presiding officer shall have the hearing transcribed by a court reporter. The presiding officer may assess any court reporter transcription costs against the party that requested the transcription or among the parties to the hearing. Except as provided by this subsection, the presiding officer may exclude a party from further participation in a hearing for failure to pay in a timely manner costs assessed against that party under this subsection. The presiding officer may not exclude a party from further participation in a hearing as provided by this subsection if the parties have agreed that the costs assessed against that party will be paid by another party.

B. If a hearing is uncontested, the presiding officer may substitute minutes or the proposal for decision required under Rule 19.8 for a method of recording the hearing provided by Subsection (A).

RULE 19.7. CONTINUANCE

The presiding officer may continue a hearing from time to time and from place to place without providing notice. If the presiding officer continues a hearing without announcing at the hearing the time, date, and location of the continued hearing, the presiding officer must provide notice of the continued hearing by regular mail to the parties.

RULE 19.8. PROPOSAL FOR DECISION

A. Except as provided by Subsection (E), the presiding officer shall submit a proposal for decision to the board not later than the 30th day after the date the evidentiary hearing is concluded.

B. The proposal for decision must include:

1. A summary of the subject matter of the hearing;

2. A summary of the evidence or public comments received; and

3. The presiding officer's recommendations for board action on the subject matter of the hearing.

C. The presiding officer or general manager shall provide a copy of the proposal for decision to:

1. The applicant; and

2. Each designated party.

D. A party may submit to the board written exceptions to the proposal for decision.

E. If the hearing was conducted by a quorum of the board and if the presiding officer prepared a record of the hearing, the presiding officer shall determine whether to prepare and submit a proposal for decision to the board under this rule.

F. The board shall consider the proposal for decision at a final hearing. Additional evidence may not be presented during a final hearing. The parties may present oral argument at a final hearing to summarize the evidence, present legal argument, or argue an exception to the proposal for decision. A final hearing may be continued as provided by Rule 19.7.

RULE 19.9. BOARD ACTION

A. The board shall act on a permit or permit amendment application not later than the 60th day after the date the final hearing on the application is concluded. For a hearing conducted by the State Office of Administrative Hearings, the final hearing on the application concludes on the date the SOAH proposal for decision, exceptions and replies to exceptions to the proposal for decision are presented the Board of Directors. In a proceeding for a permit application or amendment in which a district has contracted with the State Office of Administrative Hearings

for a contested case hearing, the board has the authority to make a final decision on consideration of a proposal for decision issued by an administrative law judge consistent with Section 2001.058, Government Code.

B. The board may change a finding of fact or conclusion of law made by the administrative law judge, or may vacate or modify an order issued by the administrative judge, only if the board determines:

1. That the administrative law judge did not properly apply or interpret applicable law, district rules, written policies provided under District Bylaw 4-9.16F, or prior administrative decisions;

2. That a prior administrative decision on which the administrative law judge relied is incorrect or should be changed; or

3. That a technical error in a finding of fact should be changed.

C. The Board may take action on an uncontested application at a properly noticed public meeting held at any time after the public hearing at which the application is scheduled to be heard. The public hearing may be held in conjunction with a regularly scheduled or special called board meeting. The Board action may occur at the same board meeting as the public hearing. The board may issue a written order to grant an application, grant the application with special conditions or deny the application.

D. Following an uncontested hearing, an applicant may, not later than the 20th day after the date the board issues an order granting the application, demand in writing a contested case hearing if the order:

1. Includes special conditions that were not a part of the application as finally submitted; or,

2. Grants a maximum amount of groundwater production that is less that the amount requested in the application.

RULE 19.10. REQUEST FOR REHEARING OR FINDINGS AND CONCLUSIONS

A. An applicant in a contested or uncontested hearing on an application or a party to a contested hearing may administratively appeal a decision of the board on a permit or permit amendment application by requesting written findings and conclusions not later than the 20th day after the date of the board's decision.

B. On receipt of a timely written request, the board shall make written findings and conclusions regarding a decision of the board on a permit or permit amendment application. The board shall provide certified copies of the findings and

conclusions to the person who requested them, and to each designated party, not later than the 35th day after the date the board receives the request. A party to a contested hearing may request a rehearing before the board not later than the 20th day after the date the board issues the findings and conclusions.

C. A request for rehearing must be filed in the District office and must state the grounds for the request. If the original hearing was a contested hearing, the party requesting a rehearing must provide copies of the request to all parties to the hearing.

D. If the board grants a request for rehearing, the board shall schedule the rehearing not later than the 45th day after the date the request is granted.

E. The failure of the board to grant or deny a request for rehearing before the 91st day after the date the request is submitted is a denial of the request.

RULE 19.11. DECISION; WHEN FINAL

A. A decision by the board on a permit or permit amendment application is final:

1. If a request for rehearing is not filed on time, on the expiration of the period for filing a request for rehearing; or

2. If a request for rehearing is filed on time, on the date:

a. The board denies the request for rehearing; or

b. The board renders a written decision after rehearing.

B. Except as provided by Subsection (c), an applicant or a party to a contested hearing may file a suit against the District to appeal a decision on a permit or permit amendment application not later than the 60th day after the date on which the decision becomes final.

C. An applicant or a party to a contested hearing may not file suit against the District under if a request for rehearing was not filed on time.

RULE 19.12. CONSOLIDATED HEARING ON APPLICATIONS

A. Except as provided by Subsection (B), the District shall process applications from a single applicant under consolidated notice and hearing procedures on written request by the applicant if the district requires a separate permit or permit amendment application for:

1. Drilling, equipping, operating, or completing a well or substantially altering the size of a well or well pump;

2. The spacing of water wells or the production of groundwater; or

3. Transferring groundwater out of a district.

B. The District is not required to use consolidated notice and hearing procedures to process separate permit or permit amendment applications from a single applicant if the board cannot adequately evaluate one application until it has acted on another application.

RULE 19.13. CONTESTED CASE HEARING REQUEST AND AFFECTED PERSON DETERMINATION

A. Hearing Requests. The following may request a contested case hearing under these Rules:

1. The Board;

2. The General Manager;

3. The applicant; and

4. Affected persons (as determined in F. below).

B. Form of Request. A request for a contested hearing by an affected person (as determined in Subsection F. below) must be in writing and be filed by United States mail, facsimile, e-mail, or hand delivery with the District within the time provided by subsection D. of this section.

C. Requirements for Request. A contested case hearing request by an affected person (as determined in Subsection F. below) must substantially comply with the following:

1. Give the name, address, and daytime telephone number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and, where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;

2. Identify the person's personal justiciable interest affected by the application, or District action including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the activity that is the subject of the application or

District action and how and why the requestor believes he or she will be affected by the activity in a manner not common to members of the general public;

3. Request a contested hearing;

4. If the party requesting a hearing desires for the hearing to be referred to and conducted by the State Office of Administrative Hearings, then the hearing request must include a statement "I/we request that the State Office of Administrative Hearings conduct the hearing." A party requesting a contested case hearing before SOAH shall pay all costs associated with the contract for a SOAH hearing in accordance with Rule 19.14; and,

5. If applicable, provide any other information specified in the public notice of application.

D. Deadline for hearing requests. A hearing request by an affected person (as determined in F. below) must be filed with the District within 20 days after the last publication of the notice of application.

E. A request for a contested hearing:

1. May be granted by the Board if the request is made by the General Manager; and

2. Shall be granted by the General Manager, if the request is made by the Board, and shall be granted by the Board, the Presiding Officer or hearings examiner, if the request is made by an affected person (as determined in Subsection F. below). For a request by an affected person other than the applicant, the request must also satisfy the following:

a. Is based solely on concerns within the authority of the District;

b. Is supported by competent showing that the person requesting a hearing is likely to be impacted by the proposed regulated activity in a manner described under Subsection F. below;

c. Complies with all of the requirements of A through D above; and,

d. Is timely filed with the District.

F. Determination of Affected Person and a Party's Right to participate in a Hearing to be made by the Presiding Officer in a preliminary hearing.

At a preliminary hearing conducted before the commencement of an evidentiary hearing, the Presiding Officer shall determine whether any person requesting a contested case hearing has standing to make the request, whether a personal justiciable issue related to an application has been raised, and a party's right to participate in a hearing. The preliminary hearing may be conducted as specified in accordance with Rule 19.4.A. Any "affected person," as determined under this section, may participate in a hearing.

1. For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application that is within the District's regulatory authority. An interest common to members of the general public does not qualify as a personal justiciable interest;

2. Governmental entities, including local governments and public agencies, with authority under state law over issues contemplated by the application may be considered affected persons;

3. Relevant factors shall be considered, including, but not limited to, the following:

    a. Whether the interest claimed is one protected by the Act or Texas Water Code Chapter 36;

    b. Distance between the regulated activity and the affected interest;

    c. Whether a reasonable relationship exists between the interest claimed and the activity regulated;

    d. Likely impact of the regulated activity on the use of groundwater interests of the person; and

    e. For governmental entities, their statutory authority over or interest in the issues relevant to the application.

4. An applicant is an affected person.

G. If it is determined at the preliminary hearing that no person who requested a contested case hearing had standing or that no justiciable issues were raised, the board may treat the matter as uncontested as described by Rule Bylaw 19.9.

RULE 19.14. HEARINGS CONDUCTED BY STATE OFFICE OF ADMINISTRATIVE HEARINGS

A. If requested by an applicant or other party to a contested case, the District shall contract with the State Office of Administrative Hearings to conduct a hearing. A person opposing an application who requests a contested hearing under Rule 19.13C must include in a timely hearing request the statement "I/we request that the State Office of Administrative Hearings conduct the hearing" in order for the hearing to be referred to and conducted by SOAH.

B. An applicant desiring that the District refer a contested case to SOAH must make a written request for the SOAH referral at the same time that applicant requests a hearing or, when a hearing has been requested by a person other than the applicant, and the applicant desires for the District to contract with SOAH to conduct the contested case, the applicant must request a SOAH hearing in writing within no later than 5 business days after the determination that the District will grant a hearing under rule 19.13E.

C. A party requesting a hearing before SOAH shall pay all costs associated with the contract for a SOAH hearing and shall deposit with the District an amount determined by the District to pay the contract amount before the hearing begins. A party's SOAH hearing request will be deemed withdrawn if the party fails to provide the required deposit within 5 days of the District's request for the deposit. At the conclusion of the hearing, the District shall refund any excess money to the paying party.

D. If the District contracts with the State Office of Administrative Hearings to conduct a hearing, the hearing shall be conducted as provided by Subchapters C, D, and F, Chapter 2001, Government Code.

E. An administrative law judge who conducts a contest case hearing shall consider applicable district rules or policies in conducting the hearing, but the district deciding the case may not supervise the administrative law judge. The District shall provide the SOAH administrative law judge with a written statement of applicable rules and policies. The district may not attempt to influence the findings of fact or the administrative law judge's application of the law in a contested case except by proper evidence and legal argument.

RULE 19.15. DISCOVERY

The presiding officer may issue subpoenas, require deposition and order other discovery consistent with the authority granted to a state agency under Subchapters C, D, and F, Chapter 2001, Texas Government Code.

RULE 19.16. RULES; ALTERNATIVE DISPUTE RESOLUTION

A district by rule may develop and use alternative dispute resolution procedures in the manner provided for governmental bodies under Chapter 2009, Government Code.

RULE 19.17. APPLICABILITY OF ADMINISTRATIVE PROCEDURE ACT

Except as provided by these rules and Water Code Sections 36.416 and 36.4165, Chapter 2001, Government Code, does not apply to a hearing under these Rules.

RULE 19.18. NOTICE AND HEARING IN AN APPEAL OF DESIRED FUTURE CONDITIONS; JUDICIAL APPEAL OF DESIRED FUTURE CONDITIONS.

A. An affected person may file a petition with the District requiring that the District contract with the SOAH to conduct a hearing appealing the reasonableness of the desired future condition. The petition must be filed not later than the 120th day after the date on which the District adopts a desired future condition under Water Code Section 36.108(d-4). The petition must provide evidence that the District did not establish a reasonable desired future condition of the groundwater resources in the management area.

B. In this Rule, "affected person" means:

1. An owner of land in Ground Water Management Area 16;

2. A groundwater conservation district or subsidence district in or adjacent to Ground Water Management Area 16:

3. A regional water planning group with a water management strategy in Ground Water Management Area 16;

4. A person who holds or is applying for a permit from a district in Ground Water Management Area 16;

5. A person with a legally defined interest in groundwater in Ground Water Management Area 16; or

6. Any other person defined as affected by Texas Commission on Environmental Quality rule.

C. Not later than the 10th day after receiving a petition, the District shall submit a copy of the petition to the Texas Water Development Board. The Texas Water Development Board shall conduct an administrative review and study required by Water Code section 36.1083(e), which must be completed and delivered to SOAH not later than 120 days after the date the Texas Water Development Board receives the petition. SOAH shall consider the study described and the desired future conditions explanatory report submitted to the development board under Water Code section 36.108(dd)(3) to be part of the administrative record in the SOAH hearing; and the Texas Water Development Board shall make available relevant staff as expert witnesses if requested by SOAH or a party to the hearing.

D. Not later than 60 days after receiving a petition appealing the reasonableness of the desired future conditions filed under Water Code section 36.1083(b), the District will submit to SOAH a copy of the petition and contract with SOAH to conduct a contested case hearing.

E. The petitioner shall pay the costs associated with the contract with SOAH and shall deposit with the District an amount determined by the District, after consultation with SOAH, that is sufficient to pay the contract amount. The deposit must be received within 15 days of written notification by the District to the petitioner specifying the amount of the deposit. Failure to timely pay the deposit may result in dismissal of the petition. After the hearing is completed and all costs paid to SOAH, the district shall refund any excess money to the petitioner.

F. Unless provided by SOAH, the District shall provide notice of a hearing appealing the reasonableness of the desired future conditions. Not later than the 10th day before the date of a hearing the general manager or board shall provide notice as follows (unless notice provide by SOAH):

1. General Notice:

   a. Post notice in a place readily accessible to the public at the District office;

   b. Provide notice to the county clerk of each county in the District; and

3. Individual notice by regular mail, facsimile, or electronic mail to:

   a. The petitioner;

   b. Any person who has requested notice;

   c. Each nonparty district and regional water planning group located in Groundwater Management Area 16;

   d. The Texas Water Development Board; and

   e. The Texas Commission on Environmental Quality.

G. After the hearing and within 60 days of receipt of the administrative law judge's findings of fact and conclusions of law in a proposal for decision, including a dismissal of a petition, the District shall issue a final order stating the District's decision on the contested matter and the District's findings of fact and conclusions of law. The District may change a finding of fact or conclusion of

law made by the administrative law judge, or may vacate or modify an order issued by the administrative law judge, as provided by Section 2001.058(e), Government Code.

H. If the District vacates or modifies the proposal for decision, the District shall issue a report describing in detail the District's reasons for disagreement with the administrative law judge's findings of fact and conclusions of law. The report shall provide the policy, scientific, and technical justifications for the District's decision.

I. If the District in its final order finds that a desired future condition is unreasonable, not later than the 60th day after the date of the final order, the District shall reconvene in a joint planning meeting with the other districts in Groundwater Management Area 16 for the purpose of revising the desired future condition. The District and other districts in Groundwater Management Area 16 shall follow the procedures in Section 36.108 to adopt new desired future conditions applicable to the District.

J. A final order by the District finding that desired future condition is unreasonable does not invalidate the adoption of a desired future condition by a district that did not participate as a party in the hearing conducted under this Rule.

L. A final District order issued under this Rule may be appealed to a district court with jurisdiction over any part of the territory of the District. An appeal under this subsection must be filed with the district court not later than the 45th day after the date the District issues the final order. The case shall be decided under the substantial evidence standard of review as provided by Section 2001.174, Government Code. If the court finds that a desired future condition is unreasonable, the court shall strike the desired future condition and order the districts in the Groundwater Management Area 16 to reconvene not later than the 60th day after the date of the court order in a joint planning meeting for the purpose of revising the desired future condition. The District and other districts in the management area shall follow the procedures in Water Code Section 36.108 to adopt new desired future conditions applicable to the District. A court's finding under this Rule does not apply to a desired future condition that is not a matter before the court.

RULE 20. AQUIFER STORAGE AND RECOVERY PROJECTS

20.1. DEFINITIONS

In this Rule, "aquifer storage and recovery project," "ASR injection well," "ASR recovery well," and "project operator" have the meanings assigned by Water Code Section 27.151.

20.2. REGISTRATION AND REPORTING OF WELLS

A. A project operator shall:

1. Register the ASR injection wells and ASR recovery wells associated with the aquifer storage and recovery project with the District;

2. Each calendar month by the deadline established by the Texas Commission on Environmental Quality (TCEQ) for reporting to the TCEQ, provide the District with a copy of the written or electronic report required to be provided to the TCEQ under Water Code Section 27.155; and

3. Annually by the deadline established by the TCEQ for reporting to the TCEQ, provide the District with a copy of the written or electronic report required to be provided to the TCEQ under Section 27.156.

B. If an aquifer storage and recovery project recovers an amount of groundwater that exceeds the volume authorized by the TCEQ to be recovered under the project, the project operator shall report to the District the volume of groundwater recovered that exceeds the volume authorized to be recovered in addition to providing the report required by Subsection A.2.

20.3. PERMITTING, SPACING, AND PRODUCTION REQUIREMENTS

A. Except as provided by Subsection B, the District may not require a permit for the drilling, equipping, operation, or completion of an ASR injection well or an ASR recovery well that is authorized by the TCEQ.

B. The ASR recovery wells that are associated with an aquifer storage and recovery project are subject to the permitting, spacing, and production requirements of the District if the amount of groundwater recovered from the wells exceeds the volume authorized by the TCEQ to be recovered under the project. A project operator must submit an operating permit application with the District in accordance with Rule 7 within 60 days of the time that the amount of groundwater recovered from the wells exceeds the volume authorized by the TCEQ to be recovered under the project. The requirements of the District apply only to the portion of the volume of groundwater recovered from the ASR recovery wells that exceeds the volume authorized by the TCEQ to be recovered.

C. A project operator may not recover groundwater by an aquifer storage and recovery project in an amount that exceeds the volume authorized by the TCEQ to be recovered under the project unless the project operator complies with the applicable requirements of the District as described by this section.

20.4. FEES AND SURCHARGES

A. The District may not assess a production fee or a transportation or export fee or surcharge for groundwater recovered from an ASR recovery well, except to the extent that the amount of groundwater recovered under the aquifer storage and recovery project exceeds the volume authorized by the commission to be recovered.

B. The District may assess a well registration fee or other administrative fee for an ASR recovery well in the same manner that the District assesses such a fee for other wells registered with the District.

20.5. CONSIDERATION OF DESIRED FUTURE CONDITIONS

The District may consider hydrogeologic conditions related to the injection and recovery of groundwater as part of an aquifer storage and recovery project in the planning for and monitoring of the achievement of a desired future condition for the aquifer in which the wells associated with the project are located.