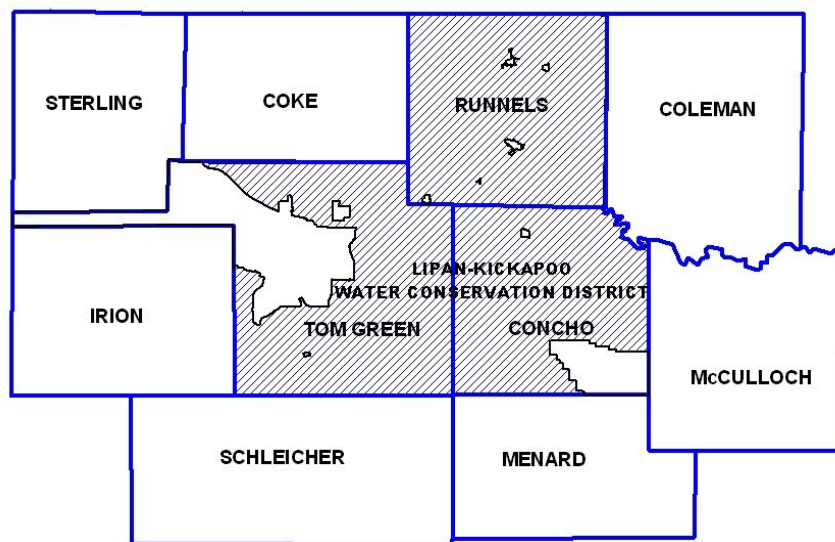


# LIPAN-KICKAPOO WATER CONSERVATION DISTRICT



## MANAGEMENT PLAN

**2018-2023**

*Adopted March 7, 2018*

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**Vancourt, Texas 76955**  
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# **LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**

## **MANAGEMENT PLAN — 2018-2023**

The Lipan-Kickapoo Water Conservation District (the “District”) was created by the 70<sup>th</sup> Texas Legislature under the authority of Section 59, Article XVI, of the Texas Constitution, and in accordance with Chapter 51 and 52 of the Texas Water Code (“Water Code”) as recorded in Section 4, Chapter 439, Acts of the 70<sup>th</sup> Legislature, Regular Session, 1987. In 1995, by Acts of the 74<sup>th</sup> Legislature, Chapter 52 of the Water Code was repealed and replaced with Chapter 36 of the Water Code effective September 1, 1995. In 2009, by Acts of the 81<sup>st</sup> Legislature, the enabling legislation for the District was recodified in Texas Special District Local Laws Code Ann. ch. 8805 Lipan-Kickapoo Water Conservation District.

The District is a governmental agency and a body politic and corporate. The District was created “to provide for the conservation, preservation, protection, recharge, and prevention of waste and pollution of the district’s groundwater and surface water” consistent with the objectives set forth in Section 59, Article XVI, of the Texas Constitution, and Chapter 36, Water Code. The District is composed of the territory described by Section 4, Chapter 439, Acts of the 70<sup>th</sup> Legislature, Regular Session, 1987, and as that territory has been modified under Chapter 36, Water Code, or other law.

### **DISTRICT MISSION**

The mission of the Lipan-Kickapoo Water Conservation District is to develop, promote and implement water conservation and management strategies to:

- a) conserve, preserve, and protect the groundwater supplies of the District,
- b) protect and enhance recharge,
- c) prevent waste and pollution, and
- d) to effect the efficient, beneficial and wise use of water for the benefit of the citizens and economy of the District.

The District seeks to protect the groundwater quality and quantity within the District, pursuant to the powers and duties granted under Chapter 36, Subchapter D of the Texas Water Code. Any action taken by the District shall only be after full consideration and respect has been afforded to the individual property rights of all citizens of the District.

### **TIME PERIOD FOR THIS PLAN**

This plan becomes effective upon adoption by the Board of Directors and approval by the Texas Water Development Board executive administrator. The plan remains in effect for five years after TWDB approval, or until such time as a revised or amended plan is approved.

### **STATEMENT OF GUIDING PRINCIPLES**

The District recognizes that its groundwater resources are of utmost importance to the economy and environment, first to the residents of the District and then to the region. Also recognized is the importance of understanding the aquifers and aquifer characteristics for proper management

of these resources. In addition, the integrity and ownership of groundwater play an important role in the management of this precious resource. One of the primary goals of the District is to preserve the integrity of the groundwater in the district from all potential contamination sources. This is accomplished as the District sets objectives to provide for the conservation, preservation, protection, recharge, prevention of waste and pollution, and efficient use of water including:

- Acquiring, understanding and beneficially employing scientific data on the District's aquifers and their hydrogeologic qualities and identifying the extent and location of water supplies within the District, for the purpose of developing sound management procedures;
- Protecting the private property rights of landowners by ensuring that landowners continue to have an adequate groundwater supply underlying their land;
- Promulgating rules for permitting and regulation of spacing, production, reporting, and transportation of groundwater resources in the District to protect the quantity and quality of the resource;
- Declaring temporary moratoriums on the drilling of wells and limiting the production of wells during times of drought;
- Educating the public and managing for the conservation and beneficial use of the water and to prevent pollution of groundwater resources;
- Cooperating and coordinating with other groundwater conservation districts with which the District shares aquifer resources.

Guidance to achieve these objectives comes from the locally elected board members who understand the local conditions and who try to manage the groundwater resources for the benefit of all the citizens of the district and region.

## **GENERAL DESCRIPTION OF THE DISTRICT**

### ***History***

The primary concern of the residents of this area of the State regarding groundwater is the potential contamination of the groundwater from leaking oil and gas wells. For this reason, the residents introduced legislation in the 70<sup>th</sup> Regular Legislative Session (1987) for creation of the District. In November 1987, the residents confirmed the district and also voted to fund the district operations through local property taxes. It became an active district on November 1, 1988. On January 2, 1989, the district adopted a 10-year Management Plan and in February 1989 adopted Rules and By-Laws which became effective March 6, 1989. In May 2001, in response to a petition submitted to the District to annex territory located outside the District in Runnels, Concho, and Tom Green counties, an election was held and the residents in this territory voted to join the District and to help fund the District through local property taxes.

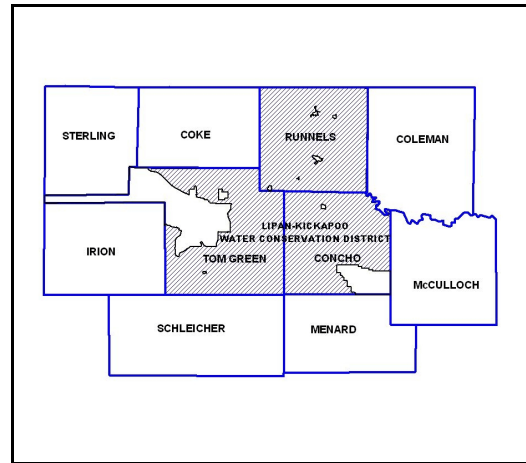
The District is governed by a seven member locally elected Board of Directors - two members from Concho County and two members from Runnels County are elected in one election, and two members from Tom Green County and one member-at-large from the District as a whole are elected in another. Elections are held every two years. By having a local board of directors, the District is very responsive to voters' approval or disapproval of the local management of their groundwater and/or the services provided by the District.

### ***Location and Extent***

The Lipan-Kickapoo WCD has an areal extent of approximately 2,262,464 acres or 3,535 square miles and is located in the center of the State of Texas. The USGS geographic center of Texas monument is located within the District and is approximately 13 miles southeast of Vancourt, Texas where the District office is located.

The District's economy is based primarily on agriculture with some oil and gas production. The agricultural income is derived primarily from cotton, grain sorghum, wheat, corn, alfalfa as well as sheep, goats, and beef cattle production. Income is also obtained from cattle and sheep feedlots and dairies. Recreational hunting leases also contribute to the income of the area.

The boundaries of the water district generally include: All of Tom Green, Runnels, and Concho counties not currently within the boundaries of the Hickory Underground Water Conservation District. The cities/towns of Winters, Ballinger, Rowena, Miles, Paint Rock, San Angelo, Christoval, Grape Creek, the Red Creek Municipal Utility District, and the area northwest of San Angelo north of the Middle Concho River and south and west of US Highway 87 north to the Coke County line are excluded from the district (Fig. 1). Most of the towns and cities within these counties were excluded because they get their water supply from surface water that belongs to and is regulated by the state. Therefore, there are no major municipalities within the District boundaries.



**Figure 1. Location of the Lipan-Kickapoo Water Conservation District showing excluded areas.**

#### *Tom Green County*

The largest single land use in the county is agriculture with a total of 923,509 acres of which 227,958 acres is crop or farm land and the balance of 695,551 acres is range land.<sup>1</sup> The crop land is located primarily in the center of the county over the Lipan aquifer while the range land is located on the north, west, and south portions of the county over the Edwards-Trinity aquifer. Irrigation covers approximately 33,738 acres of the county's crop land.<sup>2</sup> Pivot irrigation systems have been the primary method of applying irrigation water, but in the last few years a considerable number of drip irrigation systems have been installed replacing other methods of irrigation.

#### *Concho County*

The largest single land use in the county is agriculture with a total of 551,371 acres of which 105,973 acres is crop or farm land and the balance of 445,398 acres is range land.<sup>3</sup> The crop land

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<sup>1</sup> U.S. Department of Agriculture, National Agricultural Statistics Service - 2007 Census of Agriculture, Table 8.

[http://www.agcensus.usda.gov/Publications/2007/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/Texas/](http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Texas/)

<sup>2</sup> Ibid. Table 10.

<sup>3</sup> Ibid. Table 8.

is located primarily in the west central portion of the county over the Lipan aquifer while the range land is located on the north, east, and south portions of the county over the Edwards-Trinity and Hickory aquifers. Irrigation covers approximately 4,486 acres of the county's crop land.<sup>4</sup> The principle method of irrigation is through pivot irrigation systems with some drip irrigation.

#### *Runnels County*

The largest single land use in the county is agriculture with a total of 656,204 acres of which 264,780 acres is crop or farm land and the balance of 391,424 acres is range land.<sup>5</sup> The crop land is located primarily in the west central and southwestern portion of the county over the Lipan aquifer while the range land is located on the north and east portions of the county. Irrigation covers approximately 3,484 acres of the county's crop land.<sup>6</sup> The principle methods of irrigation are furrow irrigation, pivot irrigation, and drip irrigation.

Overall land use in the District is for agricultural purposes of which approximately 598,711 acres are crop or farm land and 1,532,373 acres are range land.<sup>7</sup> The crop land is located primarily in the central portion of the District over the Lipan aquifer while the range land is located along the boundaries of the District over the Edwards-Trinity and Hickory aquifers. Irrigation covers approximately 41,708 acres of the District's crop land.<sup>8</sup> The principle method of irrigation has been furrow irrigation. However, within the last 10 years there has been a large scale change to more highly efficient pivot and drip irrigation. Drip irrigation is now being installed to replace both furrow irrigation and pivot irrigation.

#### ***Topography and Drainage***

The District lies within the Colorado River Basin with much of the area known as the Concho Valley of Texas. Two major rivers, the Colorado-with its headwaters beginning on the South Plains and the Concho-with its headwaters located in the counties to the north, west, and south of Tom Green county, traverse the District and converge at the O.H. Ivie Reservoir on the Concho-Runnels-Coleman County lines. There are numerous creeks which are tributaries of these two rivers. Drainage is generally in an eastward direction. Springs flowing from the Edwards-Trinity aquifer form the headwaters of the South Concho river, Lipan Creek, and the Kickapoo Creek. Topographically, the District consists of the Lipan Flats in the center of the District southeast of the city of San Angelo to rolling plains in the remainder of the District in Concho, Runnels, and Tom Green Counties.

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<sup>4</sup> U.S. Department of Agriculture, National Agricultural Statistics Service - 2007 Census of Agriculture. Table 10.

[http://www.agcensus.usda.gov/Publications/2007/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/Texas/](http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Texas/)

<sup>5</sup> Ibid. Table 8.

<sup>6</sup> Ibid. Table 10.

<sup>7</sup> Ibid. Table 8.

<sup>8</sup> Ibid. Table 10.



## REGIONAL COOPERATION AND COORDINATION

### West Texas Regional Groundwater Alliance

The District is a member of the West Texas Regional Groundwater Alliance (WTRGA). This regional alliance consists of seventeen (17) locally created and locally funded districts that encompass approximately eighteen (18.2) million acres or twenty eight thousand three hundred sixty eight (28,368) square miles of West Texas (Fig 2). To put this in perspective, this area is larger than many individual states including Rhode Island (1,045 sq mi), Delaware (1,954 sq mi), Puerto Rico (3,425 sq mi), Connecticut (4,845 sq mi), Hawaii (6,423 sq mi), New Jersey (7,417 sq mi), Massachusetts (7,840 sq mi), New Hampshire (8,968 sq mi), Vermont (9,250 sq mi), Maryland (9,774 sq mi), and West Virginia (24,230 sq mi). This West Texas region is as diverse as the State of Texas. Due to the diversity of this region, each member district provides its own unique programs to best serve its constituents.

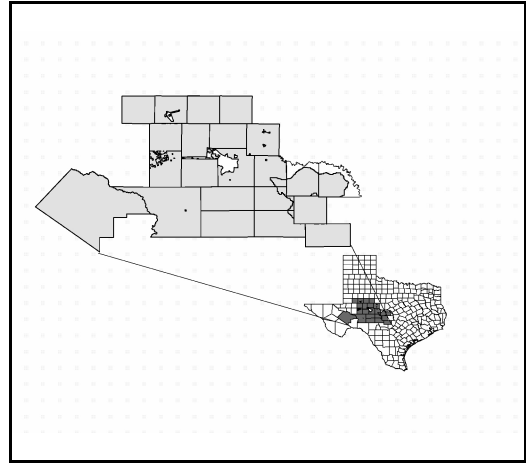


Figure 2. Territory in the West Texas Regional Alliance.

In May of 1988, four (4) groundwater districts; Coke County UWCD, Glasscock County UWCD, Irion County WCD, and Sterling County UWCD adopted the original Cooperative Agreement. As new districts were created, they too adopted the Cooperative Agreement. In the fall of 1996, the original Cooperative Agreement was redrafted and the West Texas Regional Groundwater Alliance was created. The current member districts and the year they joined the Alliance are:

Coke County UWCD	(1988)	Crockett County GCD	(1992)	Glasscock GCD	(1988)
Hickory UWCD # 1	(1997)	Hill Country UWCD	(2005)	Irion County WCD	(1988)
Kimble GCD	(2004)	Lipan-Kickapoo WCD	(1989)	Lone Wolf GCD	(2002)
Menard County UWD	(2000)	Middle Pecos GCD	(2005)	Permian Basin UWCD	(2006)
Plateau UWC & SD	(1991)	Santa Rita UWCD	(1990)	Sterling County UWCD	(1988)
Sutton County UWCD	(1991)	Wes-Tex GCD	(2005)		

This Alliance was created for local districts to coordinate and implement common objectives to facilitate the conservation, preservation, and beneficial use of water and related resources in this region of the State, to exchange information among the districts, and to educate the public about regional water issues. Local districts monitor the water-related activities that include but are not limited to farming, ranching, oil & gas production, and municipal water use. The Alliance coordinates management activities of the member districts primarily through exchange of information and policy discussions.

## PURPOSE OF MANAGEMENT PLAN

The 75th Texas Legislature in 1997 enacted Senate Bill 1 (“SB 1”) to establish a comprehensive statewide water planning process. In particular, SB 1 contained provisions that required groundwater conservation districts to prepare management plans to identify the water supply resources and water demands that will shape the decisions of each district. SB 1 designed the management plans to include management goals for each district to manage and conserve the groundwater resources within their boundaries. In 2001, the Texas Legislature enacted Senate Bill 2 (“SB 2”) to build on the planning requirements of SB 1 and to further clarify the actions necessary for districts to manage and conserve the groundwater resources of the state of Texas.

The Texas Legislature enacted significant changes to the management of groundwater resources in Texas with the passage of House Bill 1763 (HB 1763) in 2005. HB 1763 created a long-term planning process in which groundwater conservation districts (GCDs) in each Groundwater Management Area (GMA) are required to meet and determine the Desired Future Conditions (DFCs) for the groundwater resources within their boundaries by September 1, 2010. In addition, HB 1763 required GCDs, to share management plans with the other GCDs in the GMA for review by the other GCDs.

The Lipan-Kickapoo Water Conservation District’s management plan satisfies the statutory requirements of Chapter 36 of the Texas Water Code, and the administrative requirements of the Texas Water Development Board (TWDB).

## GROUNDWATER RESOURCES <sup>9</sup>

*Lipan Aquifer* - Report 345, “Aquifers of Texas”

[http://www.twdb.texas.gov/publications/reports/numbered\\_reports/doc/R345/Report345.asp](http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R345/Report345.asp)

The Lipan aquifer is located in the Lipan Flats of eastern Tom Green, western Concho, and southern Runnels counties. In 1995, the TWDB in Report 345, “Aquifers of Texas”, defined the Lipan Aquifer and its boundaries. The aquifer was located primarily in Tom Green County with parts of the aquifer located in Runnels and Concho Counties.

Then in 2011, the TWDB in Report 380, “Aquifers of Texas”,

[http://www.twdb.texas.gov/publications/reports/numbered\\_reports/doc/R380\\_AquifersofTexas.pdf](http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R380_AquifersofTexas.pdf),

expanded the boundaries of the Lipan Aquifer to include all of the alluvium along the rivers and creeks. Water from the aquifer is principally used for irrigation, with limited amounts used for rural domestic and livestock needs. The typical irrigation practice in the area is to pump water held in storage in the aquifer during the growing season with the expectation of recharge of the aquifer during the winter months. This aquifer has been declared irrelevant for planning purposes by GMA 7.

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<sup>9</sup> All estimates of groundwater availability, usage, supplies, recharge, storage, and future demands are from data supplied by the Texas Water Development Board, unless otherwise noted. Data sources include Region F-2017 State Water Plan.

*Edwards-Trinity (Plateau) Aquifer - Report 380, “Aquifers of Texas”*

The Edwards-Trinity (Plateau) aquifer is a major aquifer, but only a minor source of groundwater in the southern part of Concho county and the northern and southern parts of Tom Green county. Since there is very limited amounts of groundwater available from this aquifer within the District, it is used primarily for livestock and domestic needs. It has been declared irrelevant for planning purposes within the boundaries of the District by GMA 7.

*Hickory Aquifer - Report 380, “Aquifers of Texas”*

Underlying the Edwards-Trinity (Plateau) aquifer in the southeastern part of Concho county is a down-dip portion of the Hickory aquifer. Water in the Hickory in Concho county and within the boundaries of the Lipan-Kickapoo WCD is known to be very saline. The water quality varies and the extent of radioactivity within the Hickory aquifer within the District, which is known to exist in other parts of the aquifer, is not yet known. This aquifer has been declared irrelevant for planning purposes within the boundaries of the District by GMA 7.

## **TECHNICAL DISTRICT INFORMATION REQUIRED BY TEXAS ADMINISTRATIVE CODE**

### ***ESTIMATE OF MODELED AVAILABLE GROUNDWATER IN DISTRICT BASED ON DESIRED FUTURE CONDITIONS***

Estimate of Modeled Available Groundwater in District Based on Desired Future Conditions  
Texas Water Code § 36.001 defines modeled available groundwater as “the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition established under Section 36.108.”

As required by §36.108, Texas Water Code, district representatives of all of the groundwater districts within the same GMA shall meet at least annually to conduct joint planning. The District is a member of GMA 7 along with 20 other groundwater districts. Following the adoption of DFCs for the aquifers within the GMA, the DFCs were forwarded to the TWDB for development of the MAG calculations. Summaries of the DFC’s and MAGs can be found here:

[http://www.twdb.texas.gov/groundwater/management\\_areas/DFC.asp](http://www.twdb.texas.gov/groundwater/management_areas/DFC.asp)

On September 22, 2016, GMA 7 determined and declared the Lipan Aquifer, and the portions of the Hickory and Edwards Trinity Aquifers within the boundaries of the Lipan-Kickapoo Water Conservation District as not relevant for joint planning purposes within GMA 7. As a result of this determination by GMA 7, there are no DFCs and no MAGs for these aquifers within the boundaries of the Lipan-Kickapoo WCD.

### ***Modeled Available Groundwater in the District.***

There are no MAGs due to the non-relevance determination by GMA 7.

***Estimated Historical Groundwater Use within the District***

Please refer to Appendix A, page 3.

***Annual Amount of Recharge From Precipitation to the Groundwater Resources within the District***

Please refer to Appendix B, page 8.

***Annual Volume of Water that Discharges from the Aquifer to Springs and Surface Water Bodies***

Please refer to Appendix B, page 8.

***Estimate of the Annual Volume of Flow into the District, out of the District, and Between Aquifers in the District***

Please refer to Appendix B, page 8.

***Projected Surface Water Supply within the District***

Please refer to Appendix A, page 6.

***Projected Total Demand for Water within the District***

Please refer to Appendix A, page 9.

***Water Supply Needs***

Please refer to Appendix A, page 11.

***Water Management Strategies***

Please refer to Appendix A, page 13.

***Methodology to Track District Progress in Achieving Management Goals***

In order to achieve management goals, District Activity Reports are presented at every regular meeting of the Board of Directors as a part of the Manager's Report. These reports include district highlights, meetings attended, field/lab activities, office activities, water management activities, and other miscellaneous activities that have taken place in the District since the last meeting. Reflected in these reports are the number of water level monitor wells, the number of wells registered, the number of permits issued, the number of rain gauges in the monitor network, the number of water samples collected and analyzed, the number of wasteful practices and contamination investigations, and other matters of district importance.

## **ACTIONS, PROCEDURES, PERFORMANCE, AND AVOIDANCE NECESSARY TO EFFECTUATE THE MANAGEMENT PLAN**

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guide for determining the direction and/or priority for District activities. All operations of the District will be consistent with the provisions of this plan.

The District adopted its first set of rules in 1989 and amended the rules in 2000, 2006, 2007 and may amend the rules as necessary. Rules adopted or amended by the District shall be pursuant to TWC Chapter 36 and the provisions of this plan to insure the best management of the groundwater within the District. The development and enforcement of the rules of the District has been and will continue to be based on the best scientific and technical evidence available to the District. The rules are available at: <http://lipan-kickapoo.org/rules.html>

These rules are used by the District in the exercise of the powers conferred on the District by law and in the accomplishment of the purposes of the law creating the District. These rules may be used as guides in the exercise of discretion, where discretion is vested. However, under no circumstances and in no particular case will they or any part therein, be construed as a limitation or restriction upon the District to exercise powers, duties and jurisdiction conferred by law. These rules create no rights or privileges in any person or water well, and shall not be construed to bind the Board in any manner in its promulgation of the District Management Plan, or amendments to these rules.

The District shall treat all citizens with equality. For good cause, the District, in its discretion, and after notice and hearing, if required, may grant an exception to the District rules. In doing so, the Board shall consider the potential for adverse effects on adjacent owners and aquifer conditions. The exercise of said discretion by the Board shall not be construed as limiting the power of the Board.

The District maintains a website <http://www.lipan-kickapoo.org/> that is updated weekly. This site contains information on: District activities, forms, rules, hearing procedures, board meetings and hearings agendas, District programs, Chapter 36-Texas Water Code, Texas Water Well Drillers and Pump Installers Rules, Rules-Quick Reference Chart for the member districts of the West Texas Regional Groundwater Alliance (WTRGA) and other pertinent information.

The District has encouraged and will continue to encourage public cooperation and coordination in the implementation of the management plan for the District, as it is amended. All operations and activities of the District have been and will be performed in a manner that best encourages cooperation with the appropriate state, regional or local water entity. The meetings of the Board of the District are noticed and conducted at all times in accordance with the Texas Open Meetings Law. The District also makes available for public inspection all official documents, reports, records and minutes of the District pursuant with the Texas Public Information Act and will continue to do so in the future.

## COORDINATION WITH SURFACE WATER ENTITIES

Only the Tom Green County Water Control and Improvement District #1, a federally owned surface water irrigation district, is located within the boundaries of the LKWCD. However, several reservoirs are located either in the District, partially in the District, or adjacent to it. Therefore, in the spirit of cooperation, this management plan has been forwarded for comment to all surface water entities who hold water rights in these reservoirs.

## GOALS, MANAGEMENT OBJECTIVES AND PERFORMANCE STANDARDS

### Goal

- 1.0 Providing the Most Efficient Use of Groundwater. (§36.1071(a)(1))**  
**Gather groundwater data both to improve the understanding of the aquifers and their hydrogeologic properties and to quantify this resource for prudent planning and efficient use.**

#### Management Objective

- 1.1 Each year measure, record, and accumulate an historic record of static water levels in wells.

#### Performance Standards

- 1.1a - District will continue to maintain a water level monitoring network.  
1.1b - Report to Board of Directors the number of wells measured.

### Goal

- 2.0 Controlling and Preventing Waste of Groundwater. (§36.1071(a)(2))**  
**Minimize potential contamination of the groundwater by monitoring the drilling and completion of wells.**

#### Management Objective

- 2.1 Each year, register all new water wells drilled in the District.

#### Performance Standards

- 2.1a - District will maintain files including information on the drilling and completion of all new wells drilled within the District.  
2.1b - Report to the Board of Directors the number of new wells registered.

**Goal**

**3.0 Addressing Conjunctive Surface Water Management Issues. (§36.1071(a)(4))**

Management Objective

3.1 Each year, monitor rainfall events on the watersheds within the District that will impact surface water runoff and groundwater recharge.

*Performance Standards*

3.1a - District will continue to maintain a rainfall monitoring network to monitor rainfall events.

3.1b - Report to Board of Directors the total number rain gauges in the rainfall monitoring network.

**Goal**

**4.0 Addressing Drought Conditions. (§36.1071(a)(6))**

Management Objective

4.1 The District will monitor the TWDB Water Data for Texas website for drought and other relevant data:

<https://waterdatafortexas.org/drought/pdsi/monthly?time=2017-11>

*Performance Standards*

4.1a - District staff will monitor the TWDB Water Data for Texas website and maintain a link to the website on the District website for informational purposes.

4.1b - Report to Board of Directors the number of times the Water Data for Texas website was accessed.

**Goal**

**5.0(a) Addressing Conservation. (§36.1071(a)(7))**

Management Objective

5.1(a) The District will continue to be a source for available informational materials and programs to improve public awareness of efficient use, wasteful practices and conservation measures including maintaining a link to the water conservation best management practices guide presented by the TWDB:

<http://www.twdb.texas.gov/conservation/BMPs/index>

*Performance Standards*

5.1(a)1 - Water conservation information will be available at the District office.

5.1(a)2 - Report to the Board of Directors the number of times water conservation information was provided or website accessed.

**MANAGEMENT GOALS DETERMINED NOT-APPLICABLE**

**Goal 6.0 Controlling and Preventing Subsidence. (§36.1071(a)(3))**

Not appropriate or cost effective. The rigid geologic framework of the region precludes significant subsidence from occurring. This management goal is not applicable to the operations of the District.

**Goal 7.0 Addressing Natural Resource Issues. (§36.1071(a)(5))**

Not appropriate or cost effective. The District has no documented occurrence of endangered or threatened species dependent upon groundwater. Other issues related to resources—air, water, soil, etc. supplied by nature that are useful to life are likewise not documented. The natural resources of the oil and gas industry are regulated by the Railroad Commission on Texas, and are exempt by Chapter 36.117(e). Therefore, this management goal is not applicable to the operations of the District.

**Goal 8.0 Addressing Recharge Enhancement. (§36.1071(a)(7))**

Not appropriate or cost effective. Research project “Evaluation of Groundwater Availability, Recharge, and Monitoring System Design”<sup>10</sup> completed for the District by LBG-Guyton on January 12, 2005 indicates that water is not available for recharge to the aquifers in the District. This management goal is not applicable to the operations of the District.

**Goal 9.0 Addressing Rainwater Harvesting. (§36.1071(a)(7))**

Not appropriate or cost effective. Due to the limited amount of rainfall in the District, it is not cost effective to do large scale rainwater harvesting. Educational material and programs on rainwater harvesting are provided by the Texas Agrilife Extension Service. This management goal is not applicable to the operations of the District.

**Goal 10.0 Addressing Precipitation Enhancement. (§36.1071(a)(7))**

Not appropriate or cost effective. Due to poor atmospheric conditions limiting the number of clouds required for cloud seeding and the fact that some areas of the counties including the cities are not part of the District, it would not be cost effective to participate in a weather modification program. This management goal is not applicable to the operations of the District.

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<sup>10</sup> Evaluation of Groundwater Availability, Recharge, and Monitoring System Design, LBG-Guyton Associates, Prepared for the Lipan-Kickapoo Water Conservation District, January 12, 2005.



**Goal 11.0 Addressing Brush Control. (§36.1071(a)(7))**

Not appropriate or cost effective. The District recognizes the benefits of brush control through increased spring flows and the enhancement of native turf which limits runoff. However, most brush control projects are carried out and funded through the Natural Resources Conservation Service (NRCS) and educational material and programs on brush control are provided by the Texas Agrilife Extension Service. This management goal is not applicable to the operations of the District.

**Goal 12.0 Addressing The Desired Future Conditions of the Aquifers. (§36.1071(a)(8))**

Not applicable. Since the aquifers within the boundaries of the District were declared non-relevant by GMA 7, there are no DFCs to address.

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# **APPENDIX A**

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# Estimated Historical Groundwater Use And 2017 State Water Plan Datasets:

Lipan-Kickapoo Water Conservation District

by Stephen Allen  
Texas Water Development Board  
Groundwater Division  
Groundwater Technical Assistance Section  
stephen.allen@twdb.texas.gov  
(512) 463-7317  
December 13, 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 12/13/2017. 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.

### CONCHO COUNTY

*88.4% (multiplier)*

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	449	0	0	0	3,654	145	4,248
	SW	16	0	0	0	318	145	479
2014	GW	395	0	0	0	3,931	143	4,469
	SW	21	0	0	0	275	143	439
2013	GW	412	0	0	0	4,359	140	4,911
	SW	36	0	0	0	215	140	391
2012	GW	357	0	2	0	4,162	171	4,692
	SW	16	0	0	0	165	171	352
2011	GW	484	0	237	0	2,044	194	2,959
	SW	84	0	41	0	181	194	500
2010	GW	347	0	94	0	5,701	197	6,339
	SW	83	0	16	0	635	197	931
2009	GW	351	0	66	0	1,063	215	1,695
	SW	81	0	11	0	1,238	216	1,546
2008	GW	404	0	39	0	8,543	216	9,202
	SW	32	0	7	0	96	217	352
2007	GW	437	0	0	0	4,523	309	5,269
	SW	60	0	0	0	105	309	474
2006	GW	568	0	0	0	6,747	254	7,569
	SW	58	0	0	0	84	254	396
2005	GW	631	0	0	0	2,604	206	3,441
	SW	86	0	0	0	539	206	831
2004	GW	474	0	0	0	1,606	319	2,399
	SW	87	0	0	0	1,102	80	1,269
2003	GW	492	0	0	0	1,322	309	2,123
	SW	72	0	0	0	1,056	78	1,206
2002	GW	545	0	0	0	3,067	385	3,997
	SW	69	0	0	0	195	96	360
2001	GW	469	0	0	0	1,739	376	2,584
	SW	59	0	0	0	111	95	265
2000	GW	507	0	0	0	2,129	383	3,019
	SW	61	0	0	0	147	95	303

*Estimated Historical Water Use and 2017 State Water Plan Dataset:*

*Lipan-Kickapoo Water Conservation District*

*December 13, 2017*

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**RUNNELS COUNTY**

99.29% (multiplier)

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	105	0	0	0	3,813	286	4,204
	SW	1,008	4	0	0	663	286	1,961
2014	GW	89	0	0	0	2,644	275	3,008
	SW	1,046	6	0	0	816	275	2,143
2013	GW	152	0	0	0	3,059	264	3,475
	SW	1,074	10	0	0	390	264	1,738
2012	GW	161	0	3	0	3,378	292	3,834
	SW	1,038	8	0	0	363	292	1,701
2011	GW	184	0	151	0	1,491	472	2,298
	SW	1,342	7	25	0	241	472	2,087
2010	GW	168	0	66	0	2,158	448	2,840
	SW	1,439	7	11	0	874	448	2,779
2009	GW	276	0	60	0	1,970	424	2,730
	SW	1,329	12	10	0	1,065	423	2,839
2008	GW	257	0	54	0	2,528	437	3,276
	SW	1,218	12	9	0	1,168	437	2,844
2007	GW	286	0	0	0	1,354	385	2,025
	SW	1,197	12	0	0	799	384	2,392
2006	GW	239	0	0	0	2,644	404	3,287
	SW	1,307	17	0	0	865	404	2,593
2005	GW	296	0	0	0	1,638	387	2,321
	SW	1,130	27	0	0	810	388	2,355
2004	GW	249	1	0	0	1,466	80	1,796
	SW	1,168	37	0	0	801	721	2,727
2003	GW	347	1	0	0	1,486	77	1,911
	SW	1,882	43	0	0	964	696	3,585
2002	GW	377	2	0	0	1,809	97	2,285
	SW	1,329	49	0	0	1,670	875	3,923
2001	GW	477	1	0	0	814	95	1,387
	SW	1,454	51	0	0	751	860	3,116
2000	GW	405	0	0	0	477	93	975
	SW	1,052	53	0	0	437	836	2,378



**TOM GREEN COUNTY**

70.35% (multiplier)

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2015	GW	3,156	373	0	0	33,756	350	37,635
	SW	9,094	130	0	0	1,769	87	11,080
2014	GW	2,509	307	0	0	29,712	338	32,866
	SW	9,793	159	0	0	2,186	84	12,222
2013	GW	2,846	281	1	0	23,939	355	27,422
	SW	9,763	169	0	0	2,141	89	12,162
2012	GW	2,761	269	0	0	37,123	771	40,924
	SW	10,557	180	0	0	2,075	193	13,005
2011	GW	3,306	310	326	0	5,534	891	10,367
	SW	12,804	283	324	0	1,970	223	15,604
2010	GW	2,688	253	348	0	26,620	811	30,720
	SW	11,713	206	345	0	4,591	203	17,058
2009	GW	1,839	314	335	0	46,914	788	50,190
	SW	10,593	1,106	333	0	2,814	197	15,043
2008	GW	1,127	358	323	0	60,368	871	63,047
	SW	10,151	1,147	320	0	0	218	11,836
2007	GW	1,105	310	0	0	48,392	635	50,442
	SW	9,567	1,121	0	0	3,752	159	14,599
2006	GW	1,140	284	0	0	23,276	950	25,650
	SW	11,239	1,100	0	0	11,294	238	23,871
2005	GW	1,133	286	0	0	19,564	867	21,850
	SW	9,653	1,104	0	0	9,146	217	20,120
2004	GW	972	293	0	0	17,134	101	18,500
	SW	9,477	1,204	0	0	9,240	905	20,826
2003	GW	1,040	284	0	0	18,215	119	19,658
	SW	9,174	1,197	0	167	9,466	1,070	21,074
2002	GW	1,083	188	0	0	20,064	139	21,474
	SW	8,495	1,166	0	350	9,882	1,256	21,149
2001	GW	1,063	196	0	0	18,823	122	20,204
	SW	9,013	1,555	0	374	10,301	1,096	22,339
2000	GW	1,105	53	0	0	14,437	133	15,728
	SW	11,793	1,213	15	447	6,960	1,194	21,622

# Projected Surface Water Supplies

## TWDB 2017 State Water Plan Data

### CONCHO COUNTY

*88.4% (multiplier)*

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
F	COUNTY-OTHER, CONCHO	COLORADO	COLORADO RUN-OF-RIVER	33	33	33	33	33	33
F	COUNTY-OTHER, CONCHO	COLORADO	MOUNTAIN CREEK LAKE/RESERVOIR	0	0	0	0	0	0
F	COUNTY-OTHER, CONCHO	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
F	LIVESTOCK, CONCHO	COLORADO	COLORADO LIVESTOCK LOCAL SUPPLY	109	109	109	109	109	109
F	MILLERSVIEW-DOOLE WSC	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	49	65	59	52	47	43
<b>Sum of Projected Surface Water Supplies (acre-feet)</b>				<b>191</b>	<b>207</b>	<b>201</b>	<b>194</b>	<b>189</b>	<b>185</b>

### RUNNELS COUNTY

*99.29% (multiplier)*

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
F	BALLINGER	COLORADO	BALLINGER/MOONEN LAKE/RESERVOIR	0	0	0	0	0	0
F	BALLINGER	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	174	237	217	0	0	0
F	COLEMAN COUNTY SUD	COLORADO	BROWNWOOD LAKE/RESERVOIR	7	7	7	7	7	7
F	COLEMAN COUNTY SUD	COLORADO	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0
F	COLEMAN COUNTY SUD	COLORADO	HORDS CREEK LAKE/RESERVOIR	0	0	0	0	0	0
F	COUNTY-OTHER, RUNNELS	COLORADO	BALLINGER/MOONEN LAKE/RESERVOIR	0	0	0	0	0	0
F	COUNTY-OTHER, RUNNELS	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	23	31	29	0	0	0
F	COUNTY-OTHER, RUNNELS	COLORADO	WINTERS LAKE/RESERVOIR	0	0	0	0	0	0
F	IRRIGATION, RUNNELS	COLORADO	COLORADO RUN-OF-RIVER	196	196	196	196	196	196
F	LIVESTOCK, RUNNELS	COLORADO	COLORADO LIVESTOCK LOCAL SUPPLY	548	548	548	548	548	548

*Estimated Historical Water Use and 2017 State Water Plan Dataset:*

*Lipan-Kickapoo Water Conservation District*

*December 13, 2017*

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# Projected Surface Water Supplies

## TWDB 2017 State Water Plan Data

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
F	MANUFACTURING, RUNNELS	COLORADO	BALLINGER/MOONEN LAKE/RESERVOIR	0	0	0	0	0	0
F	MANUFACTURING, RUNNELS	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	2	3	3	0	0	0
F	MANUFACTURING, RUNNELS	COLORADO	WINTERS LAKE/RESERVOIR	0	0	0	0	0	0
F	MILES	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
F	MILLERSVIEW-DOOLE WSC	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	56	74	66	60	54	49
F	WINTERS	COLORADO	WINTERS LAKE/RESERVOIR	0	0	0	0	0	0
<b>Sum of Projected Surface Water Supplies (acre-feet)</b>				<b>1,006</b>	<b>1,096</b>	<b>1,066</b>	<b>811</b>	<b>805</b>	<b>800</b>

### TOM GREEN COUNTY

*70.35% (multiplier)*

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
F	COUNTY-OTHER, TOM GREEN	COLORADO	MOUNTAIN CREEK LAKE/RESERVOIR	0	0	0	0	0	0
F	COUNTY-OTHER, TOM GREEN	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
F	IRRIGATION, TOM GREEN	COLORADO	COLORADO RUN-OF-RIVER	1,235	1,235	1,235	1,235	1,235	1,235
F	IRRIGATION, TOM GREEN	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
F	LIVESTOCK, TOM GREEN	COLORADO	COLORADO LIVESTOCK LOCAL SUPPLY	1,157	1,157	1,157	1,157	1,157	1,157
F	MANUFACTURING, TOM GREEN	COLORADO	COLORADO RUN-OF-RIVER	18	18	18	18	18	19
F	MANUFACTURING, TOM GREEN	COLORADO	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	485	471	473	466	459	450
F	MANUFACTURING, TOM GREEN	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0

*Estimated Historical Water Use and 2017 State Water Plan Dataset:*

*Lipan-Kickapoo Water Conservation District*

*December 13, 2017*

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# Projected Surface Water Supplies

## TWDB 2017 State Water Plan Data

<b>RWPG</b>	<b>WUG</b>	<b>WUG Basin</b>	<b>Source Name</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
F	MILLERSVIEW-DOOLE WSC	COLORADO	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	136	190	179	166	155	144
F	SAN ANGELO	COLORADO	COLORADO RUN-OF- RIVER	189	189	188	188	188	187
F	SAN ANGELO	COLORADO	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	5,270	5,122	4,949	4,790	4,632	4,476
F	SAN ANGELO	COLORADO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
<b>Sum of Projected Surface Water Supplies (acre-feet)</b>				<b>8,490</b>	<b>8,382</b>	<b>8,199</b>	<b>8,020</b>	<b>7,844</b>	<b>7,668</b>

# 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.

### CONCHO COUNTY

88.4% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	COUNTY-OTHER, CONCHO	COLORADO	85	84	82	80	80	80
F	EDEN	COLORADO	480	478	471	467	466	466
F	IRRIGATION, CONCHO	COLORADO	8,605	8,569	8,534	8,502	8,470	8,439
F	LIVESTOCK, CONCHO	COLORADO	618	618	618	618	618	618
F	MILLERSVIEW-DOOLE WSC	COLORADO	97	96	94	93	92	92
F	MINING, CONCHO	COLORADO	424	419	373	324	283	247
<b>Sum of Projected Water Demands (acre-feet)</b>			<b>10,309</b>	<b>10,264</b>	<b>10,172</b>	<b>10,084</b>	<b>10,009</b>	<b>9,942</b>

### RUNNELS COUNTY

99.29% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	BALLINGER	COLORADO	690	688	671	669	668	668
F	COLEMAN COUNTY SUD	COLORADO	14	14	14	13	13	13
F	COUNTY-OTHER, RUNNELS	COLORADO	250	245	234	233	232	232
F	IRRIGATION, RUNNELS	COLORADO	3,981	3,963	3,945	3,927	3,909	3,891
F	LIVESTOCK, RUNNELS	COLORADO	874	874	874	874	874	874
F	MANUFACTURING, RUNNELS	COLORADO	48	52	56	59	64	69
F	MILES	COLORADO	112	124	121	119	119	119
F	MILLERSVIEW-DOOLE WSC	COLORADO	112	109	106	105	105	105
F	MINING, RUNNELS	COLORADO	270	267	238	209	183	160
F	WINTERS	COLORADO	216	207	197	196	195	195
<b>Sum of Projected Water Demands (acre-feet)</b>			<b>6,567</b>	<b>6,543</b>	<b>6,456</b>	<b>6,404</b>	<b>6,362</b>	<b>6,326</b>

### TOM GREEN COUNTY

70.35% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	CONCHO RURAL WATER CORPORATION	COLORADO	538	548	559	572	590	607
F	COUNTY-OTHER, TOM GREEN	COLORADO	919	931	970	1,005	1,037	1,068
F	IRRIGATION, TOM GREEN	COLORADO	65,833	65,672	65,511	65,347	65,186	65,026
F	LIVESTOCK, TOM GREEN	COLORADO	1,188	1,188	1,188	1,188	1,188	1,188
F	MANUFACTURING, TOM GREEN	COLORADO	1,679	1,840	1,997	2,134	2,303	2,484

Estimated Historical Water Use and 2017 State Water Plan Dataset:

Lipan-Kickapoo Water Conservation District

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# 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.

<b>RWPG</b>	<b>WUG</b>	<b>WUG Basin</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
F	MILLERSVIEW-DOOLE WSC	COLORADO	272	279	285	293	302	311
F	MINING, TOM GREEN	COLORADO	743	760	787	782	798	813
F	SAN ANGELO	COLORADO	18,244	20,002	20,851	21,930	23,240	24,665
<b>Sum of Projected Water Demands (acre-feet)</b>			<b>89,416</b>	<b>91,220</b>	<b>92,148</b>	<b>93,251</b>	<b>94,644</b>	<b>96,162</b>

# Projected Water Supply Needs

## TWDB 2017 State Water Plan Data

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

### CONCHO COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	COUNTY-OTHER, CONCHO	COLORADO	0	0	0	0	0	0
F	EDEN	COLORADO	0	0	0	0	0	0
F	IRRIGATION, CONCHO	COLORADO	-5,249	-5,208	-5,169	-5,133	-5,097	-5,061
F	LIVESTOCK, CONCHO	COLORADO	0	0	0	0	0	0
F	MILLERSVIEW-DOOLE WSC	COLORADO	15	30	25	18	13	8
F	MINING, CONCHO	COLORADO	-212	-206	-154	-99	-52	-11
<b>Sum of Projected Water Supply Needs (acre-feet)</b>			<b>-5,461</b>	<b>-5,414</b>	<b>-5,323</b>	<b>-5,232</b>	<b>-5,149</b>	<b>-5,072</b>

### RUNNELS COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	BALLINGER	COLORADO	-516	-451	-454	-669	-668	-668
F	COLEMAN COUNTY SUD	COLORADO	-7	-7	-7	-6	-6	-6
F	COUNTY-OTHER, RUNNELS	COLORADO	-201	-193	-195	-224	-224	-224
F	IRRIGATION, RUNNELS	COLORADO	-1,642	-1,624	-1,606	-1,588	-1,570	-1,552
F	LIVESTOCK, RUNNELS	COLORADO	0	0	0	0	0	0
F	MANUFACTURING, RUNNELS	COLORADO	-46	-49	-53	-59	-64	-69
F	MILES	COLORADO	-112	-124	-121	-119	-119	-119
F	MILLERSVIEW-DOOLE WSC	COLORADO	15	34	28	22	15	9
F	MINING, RUNNELS	COLORADO	-95	-92	-63	-33	-7	16
F	WINTERS	COLORADO	-216	-207	-197	-196	-195	-195
<b>Sum of Projected Water Supply Needs (acre-feet)</b>			<b>-2,835</b>	<b>-2,747</b>	<b>-2,696</b>	<b>-2,894</b>	<b>-2,853</b>	<b>-2,833</b>

### TOM GREEN COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
F	CONCHO RURAL WATER CORPORATION	COLORADO	69	59	48	35	17	0
F	COUNTY-OTHER, TOM GREEN	COLORADO	-556	-573	-629	-678	-724	-768
F	IRRIGATION, TOM GREEN	COLORADO	-31,651	-31,422	-31,243	-31,061	-30,832	-30,604
F	LIVESTOCK, TOM GREEN	COLORADO	17	17	17	17	17	17
F	MANUFACTURING, TOM GREEN	COLORADO	-1,211	-1,459	-1,657	-1,853	-2,094	-2,357
F	MILLERSVIEW-DOOLE WSC	COLORADO	37	87	76	60	43	26

*Estimated Historical Water Use and 2017 State Water Plan Dataset:*

*Lipan-Kickapoo Water Conservation District*

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# Projected Water Supply Needs

## TWDB 2017 State Water Plan Data

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

<b>RWPG</b>	<b>WUG</b>	<b>WUG Basin</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
F	MINING, TOM GREEN	COLORADO	0	0	0	0	0	0
F	SAN ANGELO	COLORADO	-9,250	-11,156	-12,167	-13,397	-14,870	-16,462
<b>Sum of Projected Water Supply Needs (acre-feet)</b>			<b>-42,668</b>	<b>-44,610</b>	<b>-45,696</b>	<b>-46,989</b>	<b>-48,520</b>	<b>-50,191</b>



# Projected Water Management Strategies

## TWDB 2017 State Water Plan Data

### CONCHO COUNTY

WUG, Basin (RWPG)

All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
<b>EDEN, COLORADO (F)</b>							
MUNICIPAL CONSERVATION - EDEN	DEMAND REDUCTION [CONCHO]	16	16	16	16	16	16
REUSE - EDEN, DIRECT NON-POTABLE	DIRECT REUSE [CONCHO]	50	50	50	50	50	50
		<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>
<b>IRRIGATION, CONCHO, COLORADO (F)</b>							
IRRIGATION CONSERVATION - CONCHO COUNTY	DEMAND REDUCTION [CONCHO]	487	969	1,062	1,062	1,062	1,062
		<b>487</b>	<b>969</b>	<b>1,062</b>	<b>1,062</b>	<b>1,062</b>	<b>1,062</b>
<b>MILLERSVIEW-DOOLE WSC, COLORADO (F)</b>							
MUNICIPAL CONSERVATION - MILLERSVIEW-DOOLE WSC	DEMAND REDUCTION [CONCHO]	4	4	4	4	4	4
SUBORDINATION - CRMWD SYSTEM	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM [RESERVOIR]	38	20	24	29	33	36
		<b>42</b>	<b>24</b>	<b>28</b>	<b>33</b>	<b>37</b>	<b>40</b>
<b>MINING, CONCHO, COLORADO (F)</b>							
DEVELOP ADDITIONAL HICKORY AQUIFER SUPPLIES - CONCHO COUNTY MINING	HICKORY AQUIFER [CONCHO]	200	200	200	200	200	200
MINING CONSERVATION - CONCHO COUNTY	DEMAND REDUCTION [CONCHO]	34	33	30	26	22	20
		<b>234</b>	<b>233</b>	<b>230</b>	<b>226</b>	<b>222</b>	<b>220</b>
<b>Sum of Projected Water Management Strategies (acre-feet)</b>		<b>829</b>	<b>1,292</b>	<b>1,386</b>	<b>1,387</b>	<b>1,387</b>	<b>1,388</b>

### RUNNELS COUNTY

WUG, Basin (RWPG)

All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
<b>BALLINGER, COLORADO (F)</b>							
MUNICIPAL CONSERVATION - BALLINGER	DEMAND REDUCTION [RUNNELS]	21	22	22	22	22	22
SUBORDINATION - BALLINGER/MOONEN LAKE	BALLINGER/MOONEN LAKE/RESERVOIR [RESERVOIR]	486	482	477	498	494	490
SUBORDINATION - CRMWD SYSTEM	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM [RESERVOIR]	235	137	168	196	222	245

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Lipan-Kickapoo Water Conservation District

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# 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
VOLUNTARY TRANSFER FROM CLYDE - FORT PHANTOM HILL SUPPLIES	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	888	857	816	748	708	668
WATER AUDITS AND LEAK - BALLINGER	DEMAND REDUCTION [RUNNELS]	37	37	36	36	36	36
		<b>1,667</b>	<b>1,535</b>	<b>1,519</b>	<b>1,500</b>	<b>1,482</b>	<b>1,461</b>

### COLEMAN COUNTY SUD, COLORADO (F)

MUNICIPAL CONSERVATION - COLEMAN COUNTY SUD	DEMAND REDUCTION [RUNNELS]	1	1	1	1	1	1
SUBORDINATION - LAKE COLEMAN	COLEMAN LAKE/RESERVOIR [RESERVOIR]	7	7	7	7	7	7
		<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>

### COUNTY-OTHER, RUNNELS, COLORADO (F)

REUSE- WINTERS, DIRECT POTABLE	DIRECT REUSE [RUNNELS]	32	33	34	34	34	34
SUBORDINATION - BALLINGER/MOONEN LAKE	BALLINGER/MOONEN LAKE/RESERVOIR [RESERVOIR]	90	90	90	67	67	66
SUBORDINATION - WINTERS LAKE	WINTERS LAKE/RESERVOIR [RESERVOIR]	72	72	73	71	70	68
VOLUNTARY TRANSFER - WINTERS - PURCHASE FROM ABILENE	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION [RESERVOIR]	38	39	40	41	41	41
VOLUNTARY TRANSFER FROM CLYDE - FORT PHANTOM HILL SUPPLIES	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	67	59	61	90	90	90
		<b>299</b>	<b>293</b>	<b>298</b>	<b>303</b>	<b>302</b>	<b>299</b>

### IRRIGATION, RUNNELS, COLORADO (F)

IRRIGATION CONSERVATION - RUNNELS COUNTY	DEMAND REDUCTION [RUNNELS]	200	399	477	477	477	477
		<b>200</b>	<b>399</b>	<b>477</b>	<b>477</b>	<b>477</b>	<b>477</b>

### MANUFACTURING, RUNNELS, COLORADO (F)

SUBORDINATION - BALLINGER/MOONEN LAKE	BALLINGER/MOONEN LAKE/RESERVOIR [RESERVOIR]	8	8	8	6	6	6
SUBORDINATION - WINTERS LAKE	WINTERS LAKE/RESERVOIR [RESERVOIR]	5	5	5	5	5	5
VOLUNTARY TRANSFER FROM CLYDE - FORT PHANTOM HILL SUPPLIES	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	35	39	43	48	53	58
		<b>48</b>	<b>52</b>	<b>56</b>	<b>59</b>	<b>64</b>	<b>69</b>

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# Projected Water Management Strategies

## TWDB 2017 State Water Plan Data

All values are in acre-feet

WUG, Basin (RWPG)								
Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070	
<b>MILES, COLORADO ( F )</b>								
MUNICIPAL CONSERVATION - MILES	DEMAND REDUCTION [RUNNELS]	5	6	6	6	6	6	6
SUBORDINATION - SAN ANGELO SYSTEM	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	112	124	121	119	119	119	119
		<b>117</b>	<b>130</b>	<b>127</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>125</b>
<b>MILLERSVIEW-DOOLE WSC, COLORADO ( F )</b>								
MUNICIPAL CONSERVATION - MILLERSVIEW-DOOLE WSC	DEMAND REDUCTION [RUNNELS]	4	4	4	4	4	4	4
SUBORDINATION - CRMWD SYSTEM	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM [RESERVOIR]	44	22	28	33	37	41	41
		<b>48</b>	<b>26</b>	<b>32</b>	<b>37</b>	<b>41</b>	<b>41</b>	<b>45</b>
<b>MINING, RUNNELS, COLORADO ( F )</b>								
DEVELOP OTHER AQUIFER SUPPLIES - RUNNELS COUNTY MINING	OTHER AQUIFER [RUNNELS]	76	73	46	18	0	0	0
MINING CONSERVATION - RUNNELS COUNTY	DEMAND REDUCTION [RUNNELS]	19	19	17	15	13	11	11
		<b>95</b>	<b>92</b>	<b>63</b>	<b>33</b>	<b>13</b>	<b>11</b>	<b>11</b>
<b>WINTERS, COLORADO ( F )</b>								
MUNICIPAL CONSERVATION - WINTERS	DEMAND REDUCTION [RUNNELS]	14	15	15	15	15	15	15
REUSE- WINTERS, DIRECT POTABLE	DIRECT REUSE [RUNNELS]	51	50	49	49	49	49	49
SUBORDINATION - WINTERS LAKE	WINTERS LAKE/RESERVOIR [RESERVOIR]	114	110	105	103	100	97	97
VOLUNTARY TRANSFER - WINTERS - PURCHASE FROM ABILENE	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION [RESERVOIR]	62	61	60	59	59	59	59
		<b>241</b>	<b>236</b>	<b>229</b>	<b>226</b>	<b>223</b>	<b>220</b>	<b>220</b>
<b>Sum of Projected Water Management Strategies (acre-feet)</b>		<b>2,723</b>	<b>2,771</b>	<b>2,809</b>	<b>2,768</b>	<b>2,735</b>	<b>2,715</b>	<b>2,715</b>

# Projected Water Management Strategies

## TWDB 2017 State Water Plan Data

### TOM GREEN COUNTY

WUG, Basin (RWPG)

All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
<b>CONCHO RURAL WATER CORPORATION, COLORADO (F)</b>							
DESALINATION OF OTHER AQUIFER SUPPLIES IN TOM GREEN COUNTY - CONCHO RURAL WSC	OTHER AQUIFER [TOM GREEN]	150	150	150	150	150	150
MUNICIPAL CONSERVATION - CONCHO RURAL WSC	DEMAND REDUCTION [TOM GREEN]	33	35	37	38	40	41
		<b>183</b>	<b>185</b>	<b>187</b>	<b>188</b>	<b>190</b>	<b>191</b>
<b>COUNTY-OTHER, TOM GREEN, COLORADO (F)</b>							
ABILENE REDUCTION FOR WEST TEXAS WATER PARTNERSHIP	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	0	60	69	61	68	73
BRUSH CONTROL - SAN ANGELO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	41	25	29	26	28	31
CEDAR RIDGE RESERVOIR	CEDAR RIDGE LAKE/RESERVOIR [RESERVOIR]	0	89	104	92	101	110
DESALINATION OF OTHER AQUIFER SUPPLIES IN TOM GREEN COUNTY - SAN ANGELO	OTHER AQUIFER [TOM GREEN]	0	0	0	96	105	115
REUSE - SAN ANGELO	DIRECT REUSE [TOM GREEN]	290	174	202	179	197	214
SUBORDINATION - SAN ANGELO SYSTEM	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	225	225	225	225	225	225
		<b>556</b>	<b>573</b>	<b>629</b>	<b>679</b>	<b>724</b>	<b>768</b>
<b>IRRIGATION, TOM GREEN, COLORADO (F)</b>							
IRRIGATION CONSERVATION - TOM GREEN COUNTY	DEMAND REDUCTION [TOM GREEN]	4,679	9,335	11,175	11,175	11,175	11,175
WEATHER MODIFICATION	WEATHER MODIFICATION [ATMOSPHERE]	4,945	4,945	4,945	4,945	4,945	4,945
		<b>9,624</b>	<b>14,280</b>	<b>16,120</b>	<b>16,120</b>	<b>16,120</b>	<b>16,120</b>
<b>MANUFACTURING, TOM GREEN, COLORADO (F)</b>							
ABILENE REDUCTION FOR WEST TEXAS WATER PARTNERSHIP	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	0	181	216	200	235	273
BRUSH CONTROL - SAN ANGELO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	98	75	90	83	98	113
CEDAR RIDGE RESERVOIR	CEDAR RIDGE LAKE/RESERVOIR [RESERVOIR]	0	271	324	299	351	409

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# 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
DESALINATION OF OTHER AQUIFER SUPPLIES IN TOM GREEN COUNTY - SAN ANGELO	OTHER AQUIFER [TOM GREEN]	0	0	0	312	366	425
REUSE - SAN ANGELO	DIRECT REUSE [TOM GREEN]	685	528	631	582	683	794
SUBORDINATION - SAN ANGELO SYSTEM	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	428	404	396	378	361	343
		<b>1,211</b>	<b>1,459</b>	<b>1,657</b>	<b>1,854</b>	<b>2,094</b>	<b>2,357</b>
<b>MILLERSVIEW-DOOLE WSC, COLORADO ( F )</b>							
MUNICIPAL CONSERVATION - MILLERSVIEW-DOOLE WSC	DEMAND REDUCTION [TOM GREEN]	10	11	11	12	12	13
SUBORDINATION - CRMWD SYSTEM	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM [RESERVOIR]	105	56	74	92	108	122
		<b>115</b>	<b>67</b>	<b>85</b>	<b>104</b>	<b>120</b>	<b>135</b>
<b>MINING, TOM GREEN, COLORADO ( F )</b>							
MINING CONSERVATION - TOM GREEN COUNTY	DEMAND REDUCTION [TOM GREEN]	74	76	78	78	79	81
		<b>74</b>	<b>76</b>	<b>78</b>	<b>78</b>	<b>79</b>	<b>81</b>
<b>SAN ANGELO, COLORADO ( F )</b>							
ABILENE REDUCTION FOR WEST TEXAS WATER PARTNERSHIP	FORT PHANTOM HILL LAKE/RESERVOIR [RESERVOIR]	0	1,383	1,587	1,875	1,664	1,903
BRUSH CONTROL - SAN ANGELO	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	747	576	661	781	693	793
CEDAR RIDGE RESERVOIR	CEDAR RIDGE LAKE/RESERVOIR [RESERVOIR]	0	2,074	2,381	2,810	2,497	2,854
DESALINATION OF OTHER AQUIFER SUPPLIES IN TOM GREEN COUNTY - SAN ANGELO	OTHER AQUIFER [TOM GREEN]	0	0	0	2,928	2,600	2,973
HICKORY WELL FIELD EXPANSION IN MCCULLOCH COUNTY - SAN ANGELO	HICKORY AQUIFER [MCCULLOCH]	0	0	0	0	0	0
MUNICIPAL CONSERVATION - SAN ANGELO	DEMAND REDUCTION [TOM GREEN]	656	753	793	842	894	949
REUSE - SAN ANGELO	DIRECT REUSE [TOM GREEN]	5,232	4,033	4,629	5,466	4,854	5,550
SUBORDINATION - SAN ANGELO SYSTEM	SAN ANGELO LAKES LAKE/RESERVOIR SYSTEM [RESERVOIR]	3,570	3,389	3,207	3,034	2,858	2,685
		<b>10,205</b>	<b>12,208</b>	<b>13,258</b>	<b>17,736</b>	<b>16,060</b>	<b>17,707</b>
<b>Sum of Projected Water Management Strategies (acre-feet)</b>		<b>21,968</b>	<b>28,848</b>	<b>32,014</b>	<b>36,759</b>	<b>35,387</b>	<b>37,359</b>

Estimated Historical Water Use and 2017 State Water Plan Dataset:

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# **APPENDIX B**

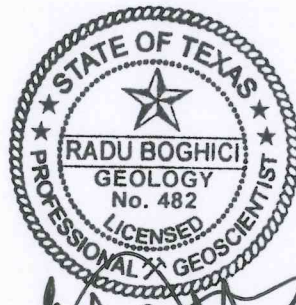
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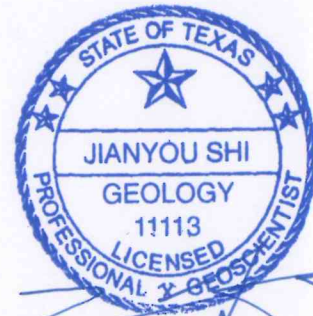
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# GAM RUN 17-005: LIPAN-KICKAPOO WATER CONSERVATION DISTRICT MANAGEMENT PLAN

Radu Boghici, P.G. and Jianyou (Jerry) Shi, Ph.D., P.G.  
Texas Water Development Board  
Groundwater Division  
Groundwater Availability Modeling Section  
(512) 463-5808  
May 30, 2017



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5/30/2017



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5/30/2017

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# GAM RUN 17-005: LIPAN-KICKAPOO WATER CONSERVATION DISTRICT MANAGEMENT PLAN

Radu Boghici, P.G. and Jianyou (Jerry) Shi, Ph.D., P.G.  
Texas Water Development Board  
Groundwater Division  
Groundwater Availability Modeling Section  
(512) 463-5808  
May 30, 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 Lipan-Kickapoo Water 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 Section. Please direct questions about the water data report to Mr. Stephen Allen at (512) 463-7317 or [stephen.allen@twdb.texas.gov](mailto: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 Lipan-Kickapoo Water Conservation District should be adopted by the district on or before March 26, 2018, and submitted to the Executive Administrator of the TWDB on or before April 25, 2018. The current management plan for Lipan Kickapoo Water Conservation District expires on June 24, 2018.

We used version 1.01 of the groundwater availability model for Edwards-Trinity (Plateau) Aquifer (Anaya and Jones, 2009), version 1.01 of the groundwater availability model for the Lipan Aquifer, and version 1.01 of the groundwater availability model for the Llano Uplift Aquifers to estimate the management plan information for the aquifers within Lipan-Kickapoo Water Conservation District. This report replaces the results of GAM Run 12-010. GAM Run 17-005 meets current standards set after the release of GAM Run 12-010. Tables 1 through 3 summarize the groundwater availability model data required by the statute, and Figures 1 through 3 show the area of the models from which the values in the tables were extracted. If, after review of this report, the Lipan-Kickapoo Water 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), we ran the groundwater availability models for the Edwards-Trinity (Plateau) Aquifer, Lipan Aquifer, and the minor aquifers of the Llano Uplift region of Texas for this analysis. We extracted water budgets for each year of the historical model periods (1981 through 1998 for the Edwards-Trinity (Plateau) Aquifer, 1980 through 1998 for the Lipan Aquifer, and 1981 through 2010 for the Hickory Aquifer) using ZONEBUDGET Version 3.01 (Harbaugh, 2009). Then we summarized in this report the average annual water budget values for recharge, surface water outflow, inflow to the district, outflow from the district, net inter-aquifer flow (upper), and net inter-aquifer flow (lower) for the portions of the aquifers located within the district.

### ***PARAMETERS AND ASSUMPTIONS:***

#### ***Edwards-Trinity (Plateau) Aquifer***

- We used version 1.01 of the groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers for this analysis. See Anaya and Jones (2009) for assumptions and limitations of the model. The Pecos Valley Aquifer does not occur within the Lipan-Kickapoo Water Conservation District and therefore no groundwater budget values are included for it in this report.
- The groundwater availability model includes two layers representing the Edwards Group and associated limestone hydrostratigraphic units (Layer 1) and the undifferentiated Trinity Group hydrostratigraphic units (Layer 2). An

individual water budget for the district was determined for the Edwards-Trinity (Plateau) Aquifer (Layer 1 and Layer 2 collectively).

- Recharge rates are based on (1980 – 2000) precipitation (Anaya and Jones, 2009).
- The model was run with MODFLOW-96 (Harbaugh and McDonald, 1996).

### ***Lipan Aquifer***

- We used version 1.01 of the groundwater availability model for the Lipan Aquifer for this analysis. See Beach and others (2004) for assumptions and limitations of the model.
- The Lipan Aquifer model includes one layer representing the Quaternary Leona Formation, portions of the underlying Permian Formations, and the Edwards-Trinity (Plateau) Aquifer to the west, south, and north.
- The model uses general head boundaries to simulate the eastern and western aquifer boundaries. Inflow on the general-head boundary to the west represents inflow from the Edwards-Trinity (Plateau) Aquifer.
- Recharge rates are based on (1980 – 2000) precipitation (Beach and others, 2004).
- The model was run with MODFLOW-96 (Harbaugh and McDonald, 1996).

### ***Hickory Aquifer***

- We used version 1.01 of the groundwater availability model for the minor aquifers of the Llano Uplift region of Texas for this analysis. See Shi and others (2016) for assumptions and limitations of the model.
- The groundwater availability model for the minor aquifers in Llano Uplift region contains eight layers:
  - Layer 1 — the Trinity Aquifer, Edwards-Trinity (Plateau) Aquifer, and younger alluvium deposits
  - Layer 2 — confining units
  - Layer 3 — the Marble Falls Aquifer and equivalent
  - Layer 4 — confining units

- Layer 5 — the Ellenburger-San Saba Aquifer and equivalent
- Layer 6 — confining units
- Layer 7 — the Hickory Aquifer and equivalent
- Layer 8 — confining (Precambrian) units

Only model layer 7—the Hickory Aquifer and equivalent—is included in this report.

- Perennial rivers and reservoirs were simulated using MODFLOW-USG river package. Springs were simulated using MODFLOW-USG drain package. For this management plan, groundwater discharge to surface water includes groundwater leakage to the river and drain boundaries.
- The model was run with MODFLOW-USG beta (development) version (Panday and others, 2013).

### *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 availability models for the Edwards-Trinity (Plateau) and Pecos Valley aquifers, for the Lipan Aquifer, and for the minor aquifers of the Llano Uplift region of Texas within Lipan-Kickapoo Water Conservation District, and averaged over the historical calibration periods, as shown in Tables 1 through 3.

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 through 3. 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	Table 2	Table 3

**TABLE 1: SUMMARIZED INFORMATION FOR THE EDWARDS-TRINITY (PLATEAU) AQUIFER THAT IS NEEDED FOR LIPAN-KICKAPOO WATER CONSERVATION DISTRICT'S GROUNDWATER MANAGEMENT PLAN. ALL VALUES ARE REPORTED IN ACRE-FEET PER YEAR AND ROUNDED TO THE NEAREST 1 ACRE FOOT. THESE FLOWS INCLUDE FRESH AND BRACKISH WATERS.**

<b>Management Plan requirement</b>	<b>Aquifer or confining unit</b>	<b>Results</b>
Estimated annual amount of recharge from precipitation to the district	Edwards-Trinity (Plateau) Aquifer	15,770
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Edwards-Trinity (Plateau) Aquifer	23,439
Estimated annual volume of flow into the district within each aquifer in the district	Edwards-Trinity (Plateau) Aquifer	11,338
Estimated annual volume of flow out of the district within each aquifer in the district	Edwards-Trinity (Plateau) Aquifer	4,438
Estimated net annual volume of flow between each aquifer in the district	From the Edwards-Trinity (Plateau) Aquifer into adjacent Lipan	3,300

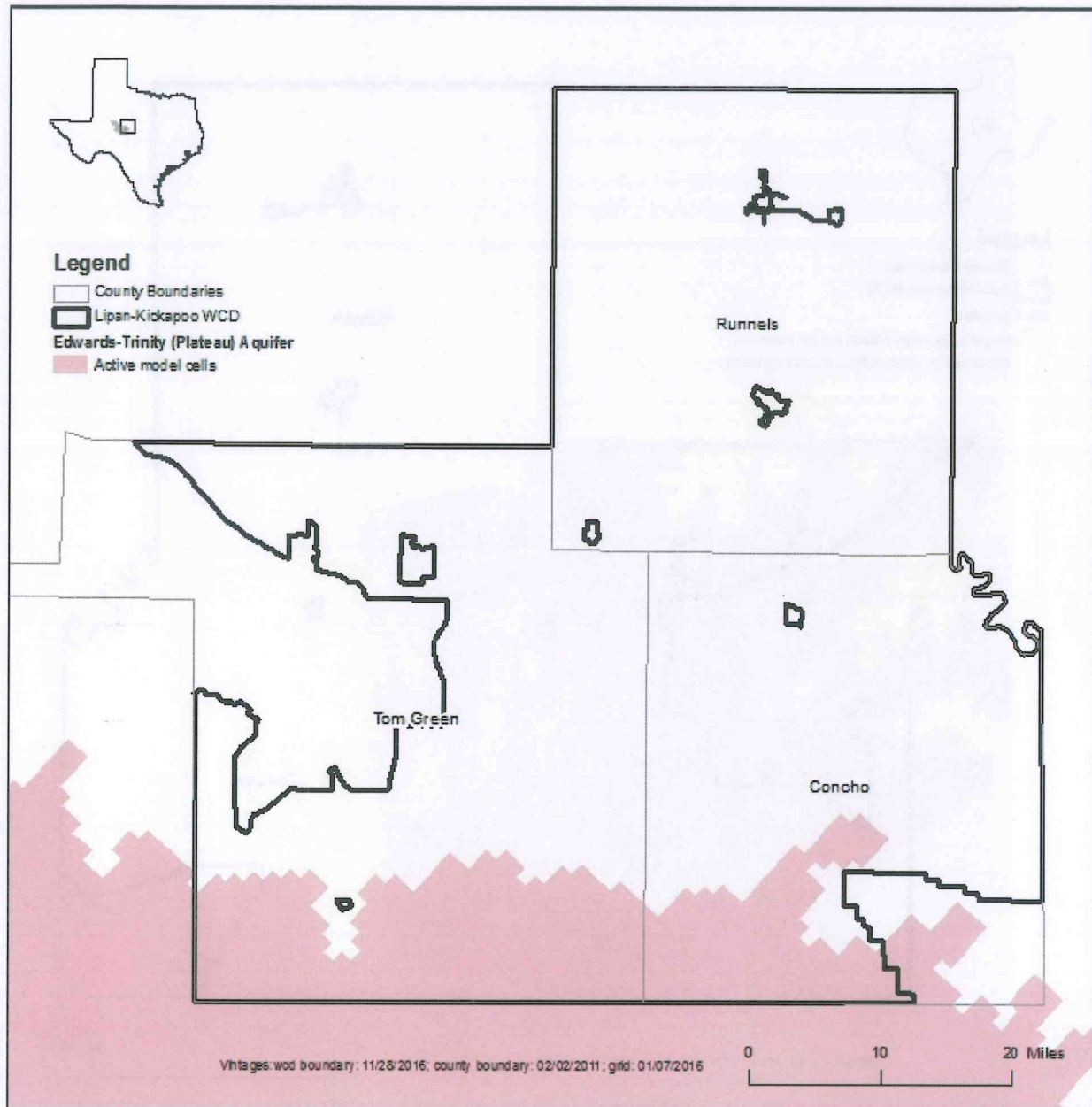


**TABLE 2: SUMMARIZED INFORMATION FOR THE LIPAN AQUIFER THAT IS NEEDED FOR LIPAN-KICKAPOO WATER CONSERVATION DISTRICT'S GROUNDWATER MANAGEMENT PLAN. ALL VALUES ARE REPORTED IN ACRE-FEET PER YEAR AND ROUNDED TO THE NEAREST 1 ACRE-FOOT. THESE FLOWS MAY INCLUDE FRESH AND BRACKISH WATERS.**

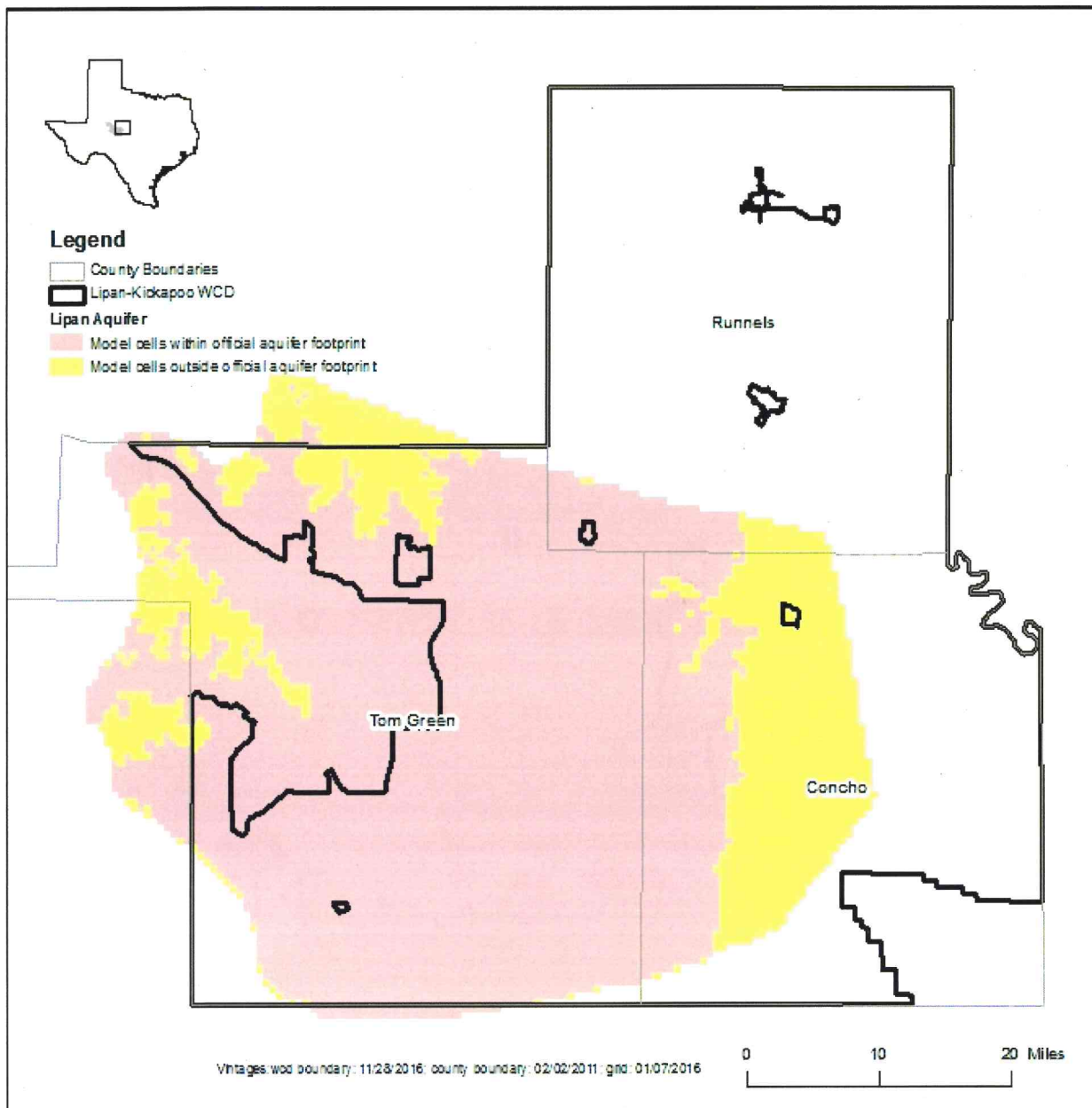
Management Plan requirement	Aquifer or confining unit	Results
Estimated annual amount of recharge from precipitation to the district	Lipan Aquifer	39,262
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Lipan Aquifer	10,724
Estimated annual volume of flow into the district within each aquifer in the district	Lipan Aquifer	21,581
Estimated annual volume of flow out of the district within each aquifer in the district	Lipan Aquifer	22,895
Estimated net annual volume of flow between each aquifer in the district	From the Edwards-Trinity (Plateau) Aquifer into the Lipan Aquifer	3,300

**TABLE 3: SUMMARIZED INFORMATION FOR THE HICKORY AQUIFER THAT IS NEEDED FOR LIPAN-KICKAPOO WATER CONSERVATION DISTRICT'S GROUNDWATER MANAGEMENT PLAN. ALL VALUES ARE REPORTED IN ACRE-FEET PER YEAR AND ROUNDED TO THE NEAREST 1 ACRE FOOT. THESE FLOWS MAY INCLUDE FRESH AND BRACKISH WATERS.**

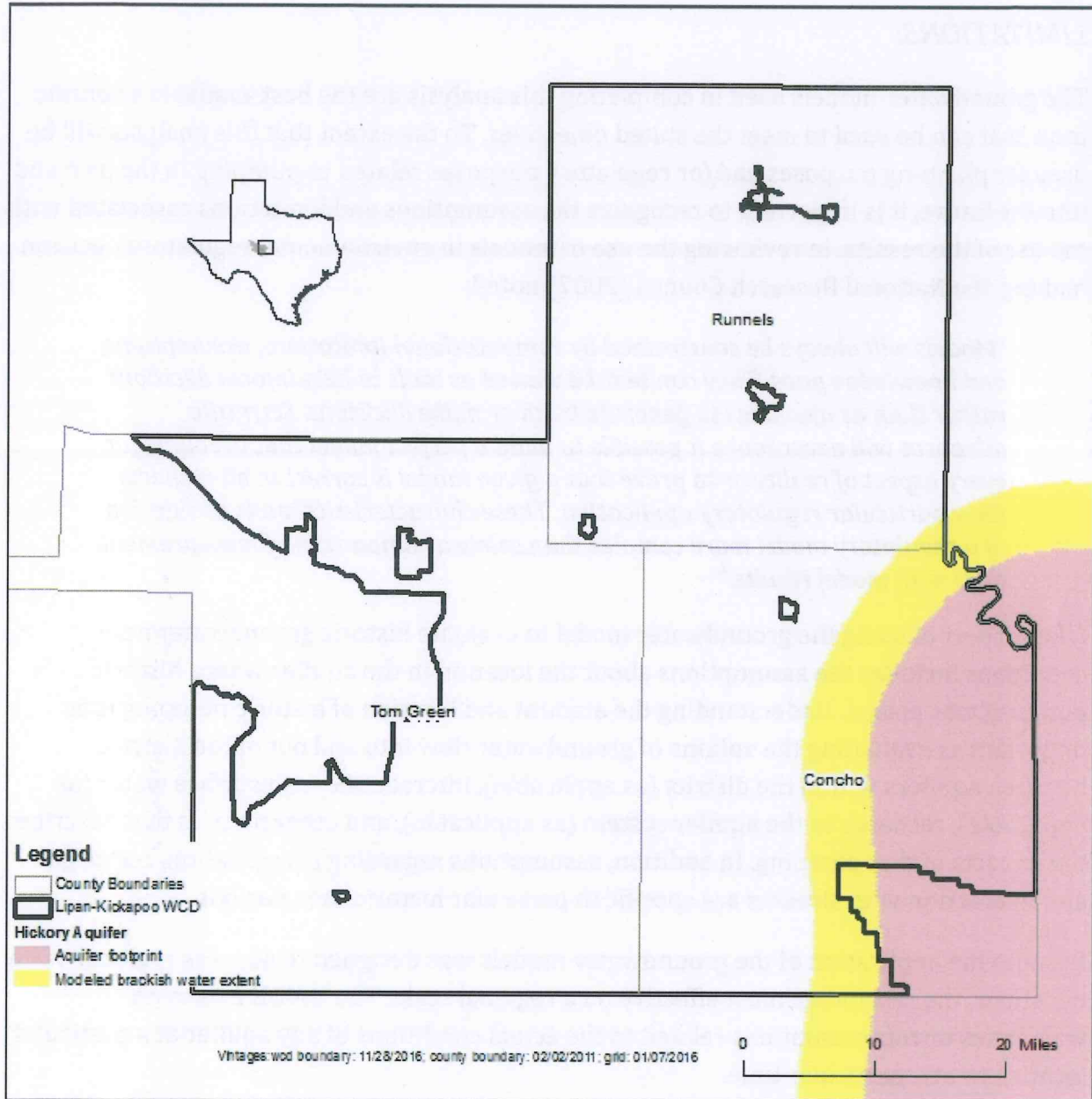
Management Plan requirement	Aquifer or confining unit	Results
Estimated annual amount of recharge from precipitation to the district	Hickory	0
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Hickory	0
Estimated annual volume of flow into the district within each aquifer in the district	Hickory	1,297
Estimated annual volume of flow out of the district within each aquifer in the district	Hickory	1,253
Net flow from brackish portion to the district	Hickory	219
Estimated net annual volume of flow between aquifers in the district	From Precambrian to Hickory Aquifer	41
	From Hickory Aquifer to Younger Units	312



**FIGURE 1: AREA OF THE GROUNDWATER AVAILABILITY MODEL FOR THE EDWARDS-TRINITY (PLATEAU) AQUIFER FROM WHICH THE INFORMATION IN TABLE 1 WAS EXTRACTED (THE AQUIFER EXTENT WITHIN THE DISTRICT BOUNDARY).**



**FIGURE 2: AREA OF THE GROUNDWATER AVAILABILITY MODEL FOR THE LIPAN AQUIFER FROM WHICH THE INFORMATION IN TABLE 2 WAS EXTRACTED (THE AQUIFER EXTENT WITHIN THE DISTRICT BOUNDARY).**



**FIGURE 3: AREA OF THE GROUNDWATER AVAILABILITY MODEL FOR THE HICKORY AQUIFER FROM WHICH THE INFORMATION IN TABLE 3 WAS EXTRACTED (THE AQUIFER 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:*

- Anaya, R., and Jones, I., 2009, Groundwater Availability Model for the Edwards-Trinity (Plateau) and Pecos Valley Aquifers of Texas: Texas Water Development Board Report 373, 103 p., [http://www.twdb.state.tx.us/gam/eddt\\_p/eddt\\_p.htm](http://www.twdb.state.tx.us/gam/eddt_p/eddt_p.htm).
- Beach, J. A., Burton, S., and Kolarik, B., 2004, Groundwater availability model for the Lipan Aquifer in Texas: final report prepared for the Texas Water Development Board by LBG-Guyton Associates, 246 p.,  
<http://www.twdb.texas.gov/groundwater/models/gam/lipn/lipn.asp>
- Boghici, R., 2012, GAM Run 12-010: Texas Water Development Board, GAM Run 12-010 Report, 6 p., <http://www.twdb.texas.gov/groundwater/docs/GAMruns/GR12-010.pdf>
- Harbaugh, A. W. and McDonald, M.G., 1996, User's Documentation for MODFLOW-96, an update to the U.S. Geological Survey Modular Finite-Difference Ground-Water Flow Model, U.S. Geological Survey Open-File Report 96-485, 63 p.
- 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.
- 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.
- Panday, S., Langevin, C.D., Niswonger, R.G., Ibaraki, M., and Hughes, J.D., 2013, MODFLOW-USG Version 1: An Unstructured Grid Version of MODFLOW for Simulating Groundwater Flow and Tightly Coupled Processes Using a Control Volume Finite-Difference Formulation, U.S. Geological Survey, 78 p.,  
<https://pubs.usgs.gov/tm/06/a45/pdf/tm6-A45.pdf>.
- Shi, J., Boghici, R., Kohlrenken, W., and Hutchison, W., 2016, Numerical Model Report: Minor Aquifers of the Llano Uplift Region of Texas (Marble Falls, Ellenburger-San Saba, and Hickory): Texas Water Development Board, 435 p.,  
[http://www.twdb.texas.gov/groundwater/models/gam/llano/Llano\\_Uplift\\_Numerical\\_Model\\_Report\\_Final.pdf](http://www.twdb.texas.gov/groundwater/models/gam/llano/Llano_Uplift_Numerical_Model_Report_Final.pdf).





# **APPENDIX C**

## ***DISTRICT RULES***

<http://lipan-kickapoo.org/rules.html>

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# LIPAN-KICKAPOO WATER CONSERVATION DISTRICT



>>> --- RULES --- <<<

P.O. BOX 67  
VANCOURT, TEXAS 76955

**Adopted August 4, 2004**

[Amended November 1, 2006]

[Amended September 5, 2007]

**LIPAN-KICKAPOO  
WATER CONSERVATION DISTRICT**

**PREAMBLE**

The purpose of this District is to provide for:

- 1) the conservation, preservation, protection, recharge, prevention of waste and pollution of the underground and surface water of the District ; and
- 2) the monitoring of the quality and quantity of the groundwater for the benefit of the citizens and economy of the District.

To carry out this purpose, these rules and regulations are passed, adopted and will be enforced among other things to minimize as far as practicable:

- 1) the draw down of the water table;
- 2) the depletion of the groundwater reservoirs and aquifers;
- 3) interference between wells;
- 4) the reduction of artesian pressure; and
- 5) to prevent the waste of groundwater and pollution or harmful alteration of the character of the groundwater and to extend the longevity of groundwater resources; and
- 6) to protect and conserve water supplies for all uses, and to manage the groundwater effectively based upon ecological and socio-economic systems unique to the aquifers within the Lipan-Kickapoo Water Conservation District.

The prevention of waste of groundwater and the promotion of water conservation to extend the longevity of the groundwater resource will be priorities.

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**RULES OF THE LIPAN-KICKAPOO  
WATER CONSERVATION DISTRICT**

**SECTION 1 - ADOPTION OF RULES**

***RULE 1.1 - The Rules of the Lipan-Kickapoo Water Conservation District as amended are hereby published as of the 4th day of August, 2004 and as amended November 1, 2006 and September 5, 2007.***

In accordance with Section 59 of Article XVI of the Texas Constitution and with Acts of the 70<sup>th</sup> Legislature (1987), p.2010, Ch. 439, S.B. 1525, and Acts of the 77<sup>th</sup> Legislature (2001), H. B. 1909, Chapter 36, and Subchapters H & I, Chapter 49, or is contrary to the Texas Water Code, the following rules are hereby ratified and adopted as the rules of the District by its Board. All rules or parts of rules in conflict with these rules are hereby repealed. Each rule as worded herein has been in effect since the date of passage and may be hereafter amended.

**RULE 1.2 - USE AND EFFECT OF RULES.**

The rules, regulations, and modes of procedure herein contained are and have been adopted for the purpose of simplifying procedure, avoiding delays, saving expense, and facilitating the administration of the water laws of the State and the rules of the District. To the end that these objectives be attained, these rules shall be so construed.

**RULE 1.3 - AMENDING OF RULES.**

The Board may, following proper notice and hearing, amend these Rules or adopt new rules from time to time.

**RULE 1.4 - SUSPENSION OF, OR EXCEPTION TO, RULES.**

Except for the Rules governing Transportation Permits, the Board may suspend, or grant an exception to any rule, in whole or in part, upon the showing of good cause or when, in the sole discretion of the Board, the particular facts or circumstances render such suspension of, or exception to the Rule appropriate in a given instance.

*[Rule amended by Board Action - September 5, 2007]*

**RULE 1.5 - SEVERABILITY.**

If any provision of any Rule or its application to any person or circumstance is held invalid, illegal, or unenforceable, the invalidity does not effect other provisions or applications of the Rule which can be given effect without the invalid provision or application, and to this end, the provisions of the Rule are severable.

**RULE 1.6 - HEADING AND CAPTIONS.**

The section and other headings and captions contained in these rules are for reference purposes only and do not affect in any way the meaning or interpretation of these Rules.

## SECTION 2. DEFINITIONS

### RULE 2.1 - DEFINITIONS.

Unless the context hereof indicates a contrary meaning, the words hereinafter defined shall have the following meaning in these rules:

- (a) **“Abandoned Well”** means a well that has not been used for six consecutive months. A well is considered to be in use in the following cases:
- (1) a non-deteriorated well which contains the casing, pump, and pump column in good condition; or
  - (2) a non-deteriorated well which has been properly capped.
- (b) **“Acre”** means the unit measure used to calculate the total land surface area under which the ownership of the water rights beneath the land surface are identical. An acre is equal to 43,560 sq. feet.
- (c) **“Acre-foot”** means the amount of water necessary to cover one acre of land one foot deep, or about 325,851 gallons of water.
- (d) **“Agent”** means the person authorized to act on behalf of the landowner with respect to transactions involving the Lipan-Kickapoo Water Conservation District.
- (e) **“Agricultural use”** means any use or activity involving agriculture, including irrigation.
- (f) **“Agricultural well”** means any well devoted solely to raising food for consumption by humans and animals, or fiber for clothing. If any part of the well production is used for any other purpose, including processing of food or fiber, the well does not qualify as an agricultural well.
- (g) **“Applicant”** means the owner of the land on which the well(s) or proposed well(s) are located, unless the landowner authorizes another person to act on his/her behalf with respect to transactions involving the Lipan-Kickapoo Water Conservation District.
- (h) **“Authorized Well Site”** shall be:
- (1) The location of either a proposed non-exempt well on an application duly filed with the District until such application is denied or a proposed exempt well on a pre-registration form duly filed with the District (An authorized well site is not a permit to drill); or
  - (2) An exempt or non-exempt well that was in existence at the time the District was created or at the time the area was annexed into the District and is not considered to be an abandoned well or deteriorated well; or
  - (3) An exempt or non-exempt well drilled after the District was created or after the area was annexed into the District that has a properly completed Well Registration or Permit on file in the District office and such well has not been “abandoned” or “plugged” by the well owner.



- (i) **“Aquifer storage and recovery project”** means a process of storing water through injection wells or other means into a suitable aquifer for later recovery or retrieval.
- (j) **“Bentonite”** means a sodium hydrous aluminum silicate clay mineral (montmorillonite) commercially available in powdered, granular, or pellet form which may be mixed with potable water and used to provide a seal in the annular space between the well casing and borehole wall or used in the plugging of wells.
- (k) **“Beneficial use”** or **“Beneficial purpose”** shall mean use for:
  - (1) agricultural, gardening, domestic, stock raising, municipal, mining, manufacturing, industrial, commercial, recreational, or pleasure purposes;
  - (2) exploring for, producing, handling, or treating oil, gas, sulphur, or other minerals; or
  - (3) any other purpose that is useful and beneficial to the users that does not commit waste as defined in these rule.
- (l) **“Board”** means the Board of Directors of the Lipan-Kickapoo Water Conservation District, consisting of seven (7) duly elected members.
- (m) **“Capped Well”** means a well that is closed or capped with a covering capable of preventing surface pollutants from entering the well and sustaining weight of at least 400 pounds and constructed in such a way that the covering cannot be easily removed by hand.
- (n) **“Casing”** means a tubular structure installed in the excavated or drilled hole, temporarily or permanently, to maintain the hole sidewalls against caving, and, along with cementing and/or bentonite grouting, prevent surface contaminant infiltration.
- (o) **“Cement”** means a neat Portland construction cement mixture of not more than seven (7) gallons of water per 94-pound sack of dry cement, or a cement slurry which contains cement along with bentonite, gypsum, or other additives.
- (p) **“Completion”** means sealing off the access of undesirable water to the well bore by proper casing and/or cementing procedures and adhering to State standards for completion.
- (q) **“Commission”** means the Texas Commission for Environmental Quality (TCEQ) or its successor.
- (r) **“Conservation”** shall mean:
  - (1) the development of water resources and the management of depletion of these resources as it relates to the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions; and
  - (2) those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or

waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

(s) **“Deteriorated Well”** means a well, the condition of which will cause, or is likely to cause pollution of groundwater.

(t) **“District”** means the Lipan-Kickapoo Water Conservation District.

(u) **“District Office”** means the office of the District as established by the Board of Directors to which applications, reports, and other papers are required to be filed or sent.

(v) **“Domestic Well”** or **“Domestic Use”** means a well that will produce water to be used solely to supply the needs of a single household. This includes the use of water for home landscapes and home gardening.

*[Definition amended by Board Action - November 1, 2006.]*

(w) **“Drilling Permit”** means a permit issued by the District for the drilling of a properly spaced non-exempt well.

(x) **“Drilled to Density”** means no more than a cumulative total of sixteen (16) non-exempt wells shall be permitted per survey section (640 acres).

(y) **“Drought”** means:

(1) a long period of below normal rainfall resulting in a depletion in aquifer levels that has persisted for a period of a year or more following establishment of baseline water levels in the District; or

(2) a determination of drought conditions by an agency of the State or Federal Government.

(z) **“Exempt Well”** means any well for which the District is prohibited from requiring a permit under Texas Water Code § 36.117. Wells used solely for domestic use or livestock or poultry on 10 acres or less are NOT exempt and must be permitted prior to drilling. For all purposes herein, an exempt well shall be exempt from permitting requirements, but shall not be exempt from either preregistration or registration requirements or spacing rules created hereunder.

*[Definition amended by Board Action - November 1, 2006.]*

(aa) **“Groundwater”** means water percolating below the earth’s surface within the District, but does not include water produced with oil in the production of gas and oil.

(bb) **“GPM”** means gallons per minute and is a measurement of the yield or production capabilities of an individual well or pump unit.

(cc) **“HP”** means horsepower and is a unit of power.

(dd) **“Installer”** means an individual who installs or repairs pumps and equipment for hire or compensation and holds a current pump installers license with the Texas Department of Licensing and Regulation or its successors.

(ee) **“Licensed Water Well Driller”** shall mean any person who holds a license issued by the State of Texas

pursuant to the provisions of the Texas Water Well Drillers Act, as amended, and the substantive rules of the Texas Department of Licensing and Regulation or its successors.

(ff) **"Manual of Hearings Procedures"** means the Lipan-Kickapoo WCD manual of hearings procedures as adopted by the District for:

- (1) addressing public complaints and informal hearings, and
- (2) adjudicative and rule making hearings.

These procedures may be amended from time to time by the District.

(gg) **"Monitor well"** is a well used to measure some property of the groundwater aquifer it penetrates.

(hh) **"Non-Exempt well"** means any well not specifically exempted by §36.117 of the Texas Water Code or these rules. This includes domestic and livestock wells on a tract of land that is 10 acres or less.

*[Definition amended by Board Action - November 1, 2006.]*

(ii) **"Notice of Intent to Drill"** means a preregistration form or other form that must be submitted to the District by the landowner or his agent prior to the drilling of an exempt well or monitor well.

(jj) **"Open or Uncovered Well"** means any artificial excavation drilled or dug for the purpose of producing groundwater and that is not capped or covered as required by the Texas Water Code.

(kk) **"Open Meetings Act"** means Chapter 551, Texas Government Code.

(ll) **"Open Records Act"** means Chapter 552, Texas Government Code.

(mm) **"Operator"** means and includes any person, firm, partnership, or corporation or other legal entity that has the right to produce water from the land either by ownership, contract, lease, easement or any other estate in the land.

(nn) **"Owner"** means and includes 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.

(oo) **"Permitted Well"** means any artificial excavation drilled or dug for the purpose of producing groundwater that:

- (1) is not exempt by §36.117, Texas Water Code;
- (2) is properly registered with the District.; and
- (3) has been issued a permit by the District.

(pp) **"Person"** means any individual, partnership, firm, state governmental agency, political subdivision, corporation or other legal entity.

(qq) **"Plugging"** means an absolute sealing of the well bore.

(rr) **"Pollution"** means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination

of, any water in the District that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

- (ss) **“Power of Attorney”** means the form signed by the owner of the land granting authority to another person to act on his/her behalf with respect to transactions involving the Lipan-Kickapoo Water Conservation District.
- (tt) **“Preregistration”** means the completion and submission of a preregistration form prior to the drilling of an exempt well and production of water.
- (uu) **“Presiding Officer”** means the President, Vice-President, Secretary, or other Board Member presiding at any hearing or other proceeding, or a Hearing Examiner conducting any hearing or other proceeding.
- (vv) **“Production”** means water withdrawn from the ground, measured at the well head and reported as gallons per minute (GPM).
- (ww) **“Pump installation”** means the procedures employed in the placement, and preparation for operation, of equipment and materials used to obtain water from a well, including construction involved in establishing seals and safeguards as necessary to protect the water from contamination. The term includes repairs to an existing pump.
- (xx) **“Recharge Facility”** means any system for recharge, injection, storage, pressure maintenance, cycling or recycling of water, which includes one or more wells, spreading dams, or percolation basins, or any other surface or subsurface system engineered and designed for the purpose of recharging water into a groundwater reservoir.
- (yy) **“Registered Well”** means and includes any artificial excavation to produce or that is producing water for any purpose that has been properly recorded with the District.
- (zz) **“Rules”** are the rules of the District compiled herein, as may be amended or supplemented from time to time.
- (aaa) **“Sealing of Wells”** means the physical sealing and tagging of a well to indicate that the well has been sealed by the District pursuant to a court order that prohibits the withdrawing of groundwater from a well to ensure that it is not operating in violation of District Rules.
- (bbb) **“Texas Rules of Civil Procedure” and “Texas Rules of Evidence”** mean the civil procedure and evidence rules as amended and in effect at the time of the action or proceeding. Except as modified by the rules of the District, the rights, duties, and responsibilities of the Presiding Officer acting under the Texas Rules of Civil Procedure and the Texas Rules of Evidence are the same as a court acting under those rules.
- (ccc) **“Transport Permit”** means an authorization issued by the District for the transfer or transport of a specific

amount of groundwater out of the District for a designated period of time for a designated purpose.

(ddd) "**Transportation facility**" is any system for transporting water, which may include a pipeline, channel, ditch, watercourse or other natural or artificial facilities, or any combination of such facilities, pertaining to any or all water which is produced from a well or wells located or to be located within the District, any or all of which is used or intended for use outside the boundaries of the District.

(eee) "**TCEQ**" means the Texas Commission for Environmental Quality, formerly, the Texas Natural Resource Conservation Commission.

(fff) "**Undesirable Water**" means water that is injurious to human health, to vegetation, to land, or to fresh water, or water that can cause pollution.

(ggg) "**Waste**" means any one or more of the following:

(1) 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;

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

(3) The escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;

(4) The pollution or harmful alteration of groundwater in a groundwater reservoir by salt water or by other deleterious matter admitted from another stratum or from the surface of the ground;

(5) Willfully or negligently causing, suffering, or permitting 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; or

(6) 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

(7) for water produced from an artesian well, "waste" has the meaning assigned by §11.205, Water Code.

(hhh) "**Water**" or "**Underground Water**" means groundwater.

(iii) "**Well**" or "**Water Well**" means and includes any artificial excavation constructed for the purpose of exploring for or producing groundwater.

(jjj) "**Well Owner or Well Operator**" means the Owner of the land upon which a well is located or is to be located

or the person who operates a well or water distribution system supplied by a well.

(kkk) **“Well Report” or “Driller’s Log”** means a record , made at the time of drilling, showing the depth, thickness, character of the different strata penetrated, location of any water bearing strata, depth, size and character of casing installed, together with any other data or information required by the State or this Board and recorded on forms prescribed either by the State regulatory agency with jurisdiction thereof or by this Board .

(lll) **“Well Status”** means either an Exempt Well or a Permitted Well.

(mmm) **“Well System”** means a well or group of wells tied to the same distribution system.

(nnn) **“Withdrawal”** means extracting groundwater by pumping or any other method.

### **SECTION 3. WASTE AND WATER CONSERVATION**

#### **RULE 3.1 - WASTE AND WATER CONSERVATION.**

The following rules provide for the conservation, preservation, protection, and prevention of waste of groundwater as authorized in Texas Water Code Chapter 36.

(a) Groundwater shall not be produced within, or used within or without the District, in such a manner or under such conditions as to constitute waste as defined in Rule 2.1 hereof.

(b) Any person producing or using groundwater shall use every possible precaution, in accordance with reasonable methods, to stop and prevent waste of such water.

(c) No person shall pollute or harmfully alter the character of the groundwater reservoir of the District by means of salt water or other deleterious substance admitted from some other stratum or strata or from the surface of the ground.

(d) In order to prevent waste and achieve water conservation, no person shall willfully or negligently cause, suffer, or allow 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 Texas Commission on Environmental Quality under Chapter 26, Texas Water Code.

### **SECTION 4. GENERAL PROCEDURAL PROVISIONS**

#### **RULE 4.1 - COMPUTING TIME.**

In computing any period of time prescribed or allowed by these rules, by order of the Board, or by any applicable statute, the day of the act, event or default from which the designated period of time begins to run, is not to be included, but the last day of the period so computed is to be included, unless it be a Saturday, Sunday or legal holiday, in which event the period runs until the end of the next day which is neither a Saturday, Sunday nor a legal holiday.

**RULE 4.2 - TIME LIMIT.**

Applications, requests, or other papers or documents required or permitted to be filed under these rules or by law must be received for filing at the District's office at Vancourt, Texas. The date of receipt and not the date of posting is determinative.

**RULE 4.3 - MINUTES AND RECORDS OF THE DISTRICT.**

All official documents, reports, records and minutes of the District are available for public inspection and copying in accordance with the Texas Open Records Act. Upon written application of any person, the District will furnish copies of its public records, subject to the Provisions of Chapter 552, Texas Government Code. Persons who are furnished copies may be assessed reproduction fees as provided in Chapter 552.

**RULE 4.4 - PROCEDURES NOT OTHERWISE PROVIDED FOR.**

If in connection with any hearing, the Board determines that there are no statutes or other applicable rules resolving particular procedural questions then before the Board, the Board will direct the parties to follow procedures consistent with the purpose of these Rules, and Chapters 36 and Subchapters H and I, Chapter 49 of the Texas Water Code.

**SECTION 5. ENFORCEMENT OF RULES**

**RULE 5.1 - SHOW CAUSE ORDERS AND COMPLAINT.**

The Board, either on its own motion or upon receipt of sufficient written protest or complaint, may at any time, after due notice to all interested parties, cite any person operating within the District to appear before it in a public hearing and require him or her to show cause why his or her operating authority or permit should not be suspended, canceled, or otherwise restricted and limited, for failure to comply with the Rules, orders or regulations of the Board or the relevant statutes of the State, or for failure to abide by the terms and provisions of the permit or operating authority itself. The matter of evidence and all other matters of procedure at any such hearing will be conducted in accordance with these rules of procedures and practice.

**RULE 5.2 - INSTITUTION OF SUIT**

If it appears that a person has violated, is violating, or is threatening to violate any provision of the District Rules, the District may institute and conduct a suit for enforcement of these rules through provisions of §36.102 of the Texas Water Code. Subject to §36.102 of the Texas Water Code as amended:

- (1) the District may enforce these rules by injunction, mandatory injunction, or other appropriate remedy in court;
- (2) the Board may set reasonable civil penalties for breach of any rule of the District not to exceed \$10,000 per day per violation, and each day of a continuing violation constitutes a separate violation.
- (3) a penalty under this rule is in addition to any other penalty provided by the law of this State; and

(4) if the District prevails in any suit to enforce its rules, the District may seek and the Court shall grant, in the same action, recovery of attorney's fees, costs for expert witnesses, and other costs incurred by the District before the Court. The amount of the attorney's fees shall be fixed by the court.

**RULE 5.3 - SEALING OF PROHIBITED WELLS.**

(a) Pursuant to a court order, the District may, upon orders from the judge of the courts, seal wells that are prohibited from withdrawing groundwater within the District, to ensure that a well is not operating in violation of the District Rules. A well may be sealed when:

- (1) no application has been made for a permit to drill a new water well which is not excluded or exempted; or
- (2) no application form has been filed for a permit to withdraw groundwater from an existing well which is not excluded or exempted from the requirement that a permit be obtained in order to lawfully withdraw groundwater; or
- (3) no application form has been filed for a change to a permit to withdraw groundwater from an existing well.
- (4) no permit has been issued prior to the operation of a non-exempt well; or
- (5) the Board has denied, canceled or revoked a drilling permit or the operating authority to produce groundwater from a well .

(b) The well may be sealed by physical means, and tagged to indicate that the well has been sealed by the District, and other appropriate action may be taken as necessary to preclude operation of the well or to identify unauthorized operation of the well.

(c) Tampering with, altering, damaging, or removing the seal of a sealed well, or in any other way violating the integrity of the seal, or pumping of groundwater from a well that has been sealed constitutes a violation of these rules and subjects the person performing that action, as well as any well owner or primary operator who authorizes or allows that action, to such penalties as provided by the District Rules.

**RULE 5.4 - CONTINUING RIGHT OF SUPERVISION.**

All District permits are issued subject to the rules of the District and to the continuing right of the District to supervise the depletion of the aquifer within the District's boundaries as authorized by Chapter 36, Texas Water Code, as amended, provided that such regulation does not discriminate, based upon purpose or location of water use.

**RULE 5.5 - RIGHT TO INSPECT, TEST, CAP, LOCATE, AND SEAL WELLS**

(a) Any authorized officer, employee, agent, or representative of the District shall have the right at all reasonable times to enter upon the lands on which a well or wells may be located within the boundaries of the District to:

- (1) inspect such well or wells;



- (2) read or interpret any meter, weir box or other instrument for the purpose of measuring production of water from said well or wells;
  - (3) determine the pumping capacity of said well or wells;
  - (4) measure the water level or obtain water samples for determining the water quality of said well or wells;
  - (5) test the pump and the power unit of the well or wells;
  - (6) cap wells that are open in violation of §36.118, Texas Water Code, as amended, or §76.702, Texas Department of Licensing and Regulation, Water Well Drillers and Water Well Pump Installers Rules, as amended;
  - (7) determine the coordinates (location) of said well or wells using GPS or other available methods;
  - (8) make any other reasonable and necessary inspection and/or test that may be required or necessary for the information or enforcement of the rules and regulations of the District; or
  - (9) seal wells as authorized by court order under Rule 5.3.
- (b) The operation of any well may be enjoined by the Board immediately upon refusal to permit the gathering of information as above provided from such well or wells.

## **SECTION 6. DEPOSITS AND FEES**

### **RULE 6.1 - DEPOSITS.**

- (a) Each application for a permit to drill a well shall be accompanied by a deposit in the amount determined by the Board by resolution, order, or rule that will be accepted by the District. Said deposit shall be returned to the applicant by the District if:
- (1) the application is denied;
  - (2) the application is granted, upon receipt of all drillers' well reports and plugging reports for all wells drilled under a drilling permit along with the following information, if available: the pump HP, pump discharge size, and pump yield (GPM) for the completed wells; or
  - (3) the permit location is abandoned without having been drilled, upon return and surrender of said permit marked **"Abandoned" or "Canceled"** by the applicant. In the event neither the registration forms and drillers' well report and/or plugging reports nor the permit marked **"Abandoned" or "Canceled"** is returned to said District within six **(6) months** after the approval date of the permit or the extension date thereof, the said deposit shall become the property of the District.

*[Rule amended by Board Action - September 5, 2007]*

**RULE 6.2 - ADMINISTRATIVE FEES.**

The District shall collect fees for:

- (1) all services provided outside of the District. The fees shall be established by the Board and be reviewed and revised as needed to cover the cost to the District; and
- (2) the District may establish and collect reasonable fees to cover costs incurred by the District for services and processing of applications. A schedule of fees sufficient to cover actual costs incurred by the District may be established by the Board and may be reviewed and amended as needed to cover the cost to the District.

**SECTION 7. WELL REGISTRATION**

**RULE 7.1 - WELL REGISTRATION.**

Well Registration is required for all existing and future wells in the District and shall be filed with the District on a form and in the manner required by the District.

- (a) All existing and future exempt and non-exempt wells drilled in the District shall be registered with the District and shall be known as Authorized Well Sites.
- (b) Registration shall include the following information, submitted on forms provided by the District:
  - (1) name and address of the well owner;
  - (2) legal description of the well location or proposed location;
  - (3) well use or proposed use; and
  - (4) well status - producing, abandoned, capped, or plugged.
- (c) Registration may include the following information:
  - (1) well description including:
    - (i) date drilled;
    - (ii) well depth;
    - (iii) casing type and size;
    - (iv) surface completion;
    - (v) pump type;
    - (vi) pump HP; and
    - (vii) gallons per minute (GPM) being produced.
  - (2) coordinates (Latitude/Longitude) for the well location;
  - (3) distance in feet to nearest well; and
  - (4) such additional data as may be required by the Board.

- (d) In order to provide for the registration of existing water wells that are subject to the rules and regulations of the District, it shall be the policy of this Board that District personnel and/or designated agents acting for the District may register wells drilled and equipped within the District which the land owner or his/her agent has not registered; provided that such wells were not drilled, equipped, and operated (pumped) in such a manner as to violate any rules and regulations of the District.
- (e) All Permitted Wells or Authorized Well Sites issued under these Rules are conditional, and the Board may revoke, suspend, or modify its authorization if the person to whom the authorization was issued does not comply with the Rules of the District; does not comply with the terms and conditions stated in the drilling permit; or abandons the well. The District shall provide reasonable notice and opportunity for hearing before revoking, suspending, or modifying the authorization.
- (f) Changes in permit conditions, i.e. use of the groundwater, increase in the amount of water produced, and replacement of the well are considered a forfeiture of grandfather status and the well owner must apply for a new permit before producing water.
- (g) If there is a change in well ownership and no other change to the well or authorized well site, the new well owner must submit a change of ownership notice to the District within ninety (90) days of the transfer of ownership.
- (h) It is a violation of the District Rules for any person or entity to produce groundwater from any well without first having:
  - (1) applied to and received approval for a new permit from the District; or
  - (2) submitted a notice of change of ownership to the District for existing wells or authorized well sites within ninety (90) days of the transfer of ownership.

**RULE 7.2 - PREREGISTRATION REQUIRED FOR EXEMPT WELLS.**

- (a) Completed Preregistration forms for the drilling, reworking, redrilling, or reequipping of an exempt well or monitor well must be filed with the District prior to proceeding with the work. Preregistration is required for all wells defined as exempt under Rule 2.1. It is a violation of the District Rules for any person or entity to drill, rework, redrill, or reequip an exempt well until a well preregistration form has been filed with and approved by the District.  
*[Rule amended by Board Action - November 1, 2006.]*
- (b) Preregistration shall be submitted on forms provided by the District. Preregistration forms must be administratively complete to be considered by the District.  
*[Rule amended by Board Action - November 1, 2006.]*
- (c) The application to drill, rework, redrill, or reequip an exempt well may be submitted to the district in person, by fax,

mail, or email by the owner of the land or his duly appointed agent, including a partner, operator, driller, or any other person who has the authority to construct the well and/or operate the well for the proposed use.

*[Rule amended by Board Action - November 1, 2006.]*

## **SECTION 8. DRILLING PERMITS**

### **RULE 8.1 - DRILLING PERMIT REQUIRED FOR NON-EXEMPT WELLS.**

- (a) No person shall begin to drill a well or increase the rate of production of an existing well without having first applied to the District and been issued a permit to do so, unless the well after drilling or after other modifications, will be exempt under Rule 2.1.
- (b) Domestic and livestock wells located on 10 acres or less are NOT exempt by Chapter 36, Texas Water Code, and a Drilling Permit must be applied for and approved by the District prior to drilling.

*[Rule amended by Board Action - November 1, 2006.]*

- (c) Drilling a well without a permit or operating a well at a higher rate of production than the rate approved for the well is declared to be illegal, wasteful per se, and a nuisance.
- (d) It is a violation of the District Rules for a well owner, well operator, or water well driller to drill a non-exempt well until an application for a Drilling Permit has been filed with the District and approved. It is also a violation of the District Rules for a water well driller to fail to submit an approved copy of the Drilling Permit along with the Well Report that is required to be submitted to the District. A violation occurs on the first day the drilling, alteration, or operation begins and continues each day thereafter until the appropriate permits are approved.

### **RULE 8.2 - ISSUANCE OF DRILLING PERMITS FOR NON-EXEMPT WELLS.**

- (a) The Board shall issue or cause to be issued a drilling permit for a properly spaced well upon proper application executed and filed by the owner or his/her agent with the District and accompanied by the required deposits or fees and containing the matters specified below. A drilling permit is required for each new non-exempt well. All applications shall be in writing, on forms provided by the District and contain the information called for in the application form and shall be prepared in accordance with all instructions which may have been issued by the Board with respect to the filing of an application. An application shall be considered properly filed when administratively complete, signed, and tendered to the District or to a person duly designated by the District to receive the same. Applications shall not be considered until the application is administratively complete.

*[Rule amended by Board Action - November 1, 2006.]*

- (b) Rules for the filing of applications:

- (1) If the applicant is an individual, the application shall be signed by the applicant or his duly appointed agent.

The agent may be requested to present satisfactory evidence of his authority to represent the applicant.

- (2) If the application is by a partnership, the applicant shall be designated by the firm name followed by the words "a Partnership" and the application shall be signed by at least one of the general partners who is duly authorized to bind all of the partners.
- (3) In the case of a corporation, public district, county or municipality, or political sub-division of the State, the application shall be signed by a duly authorized official. A copy of the resolution or other authorization to make the application may be required by the officer or agent receiving the application.
- (4) In the case of an estate or guardianship, the application shall be signed by the duly appointed guardian or representative of the estate.

- (c) Upon receipt of a properly completed drilling permit application and prior to the issuance of a permit, District staff may inspect the proposed well location to verify compliance with District rules. After inspection or upon verification of the information in the application, if the completed permit application does not comply with District rules, the application must be either amended to bring it into compliance with the rules or a properly completed application for an exception to the Rules must be filed with the District and presented to the Board so that, following notice and hearing, a ruling can be made on the permit application.

*[Rule amended by Board Action - November 1, 2006.]*

- (d) The Board of Directors delegates to the general manager the authority to act on completed permit applications for which no hearing is required and that comply with District rules.

*[Rule amended by Board Action - November 1, 2006.]*

- (e) Failure to abide by the rules of the district concerning drilling permits is a violation of the law and/or the rules of the district and subjects the land owner, the driller, and the pump installer to legal action by the district. A violation occurs on the first day the drilling, alteration, or operation of a well begins and continues each day thereafter until the appropriate permits are approved.

**RULE 8.3 - PLACE OF DRILLING OF WELL.**

After an application for a drilling permit has been granted, the well, if drilled, must be drilled in compliance with all District rules. If the well should be commenced or drilled at a different location greater than 30 feet from the location given on the drilling permit application, the drilling or operation of such well may be enjoined by the District pursuant to Chapter 36 , Texas Water Code, as amended and/or the District may initiate enforcement proceedings under Rules 5.1 and 5.2. The District shall have the right to confirm reported distances and inspect the wells or well locations.

**RULE 8.4 - REWORKING OR REPLACING OF WELL.**

(a) An existing well may be reworked, re-drilled, or re-equipped in a manner that will not change the status of the existing well as either an exempt well or a permitted (non-exempt) well. Preregistration is required when reworking, redrilling, or reequipping any existing well in the District. Subject to Rule 8.1, a drilling permit is required when reworking or redrilling an existing non-exempt well to increase the rate of production.

*[Rule amended by Board Action - November 1, 2006.]*

(b) No person shall rework, redrill, or reequip an exempt well in a manner that would change the status of the well without first having made an application to the Board, and having been granted a permit by the Board to do so. In the event the application to change the status of an existing exempt well meets the Minimum Spacing of Wells (Rule 9.1), the District may grant a permit without notice or hearing.

(c) A drilling permit must be applied for and granted by the District to replace an existing well with a replacement well. A replacement well must not be located toward any other well, authorized well site, or property line unless the new location complies with the minimum spacing requirements set out in Rule 9.1.

(1) If the new location cannot comply with the minimum spacing of wells, then the replacement well, in order to be considered as such, must be drilled within **thirty (30) feet** of the old well and not elsewhere. The new well shall not be drilled nearer the property line than the old existing well nor located toward any other well or authorized well site within **three hundred and thirty (330) feet** or within **six hundred and sixty (660) feet** along a property line unless the original well was "grandfathered" inside the spacing requirements of Rule 9.1.

(2) The location of the old well (the well being replaced) shall be protected in accordance with the spacing rules of the District until the replacement well is drilled and tested. The landowner or his agent must within **four (4) months** of the issuance of the permit declare in writing to the District which one of these two wells he desires to produce. If the landowner does not notify the District of his choice within this period, then it will be conclusively presumed that the new well is the well he desires to retain. Within 30 days after the four (4) month period or extension thereof and the determination of which well will be retained for production:

(i) if the tract of land is drilled to density, the well that is not to be produced shall be abandoned and plugged and a properly completed Plugging Report shall be submitted to the District;

(ii) If the tract of land is not drilled to density, the old permitted well shall be either:

(a) Abandoned and plugged; or

(b) Properly equipped in such a manner that it cannot produce more than 25,000 gallons of water a day and used solely for domestic or livestock use; or

(c) Closed in accordance with Texas Health and Safety Code §756.01 et seq., as amended.

(iii) During the 4 month testing period, either the old well or the new well may be operated but not both.

**RULE 8.5 - TIME LIMIT FOR DRILLING PERMITS.**

Any drilling permit granted hereunder shall be valid if the work permitted shall have been completed within **four (4)** months from the filing date of the application. It shall thereafter be void. Provided, however, that the District, for good cause, may extend the life of such permit for an additional **four (4)** months if a written application for such extension shall have been made to the District during the first **four (4)** month period. Provided, further, that when it is made known to the District that a proposed project will take more time to complete, the District, upon receiving written application may grant such time as is reasonably necessary to complete such project.

**RULE 8.6 - REQUIREMENT OF DRILLER'S WELL REPORT, CASING AND PUMP DATA.**

- (a) Complete records shall be kept and reports thereof made to the District concerning the drilling, maximum production potential, equipping and completion of all wells drilled either by a licensed driller or an individual land owner. Such records shall include an accurate driller's log, any electric log which shall have been made, and such additional data concerning the description of the well, its potential, hereinafter referred to as "maximum rate of production" and its actual equipment as may be required by the District. Such records shall be filed with the District within sixty (60) days after the completion of the well.
- (b) Subject to the Water Well Drillers rules, every licensed well driller shall deliver either in person, by fax, email, or send by first-class mail, a photocopy of the State Well Report to the District within sixty (60) days from the completion or cessation of drilling, deepening, or otherwise altering a well.
- (c) No person shall produce water from any well hereafter drilled and equipped within the District, except that necessary to the drilling and testing of such well and equipment, unless or until the District has been furnished an accurate driller's log, any electric log which shall have been made, and a registration of the well correctly furnishing all available information required on the forms furnished by the District.

**SECTION 9. WELL SPACING AND WELL DENSITY**

**RULE 9.1 - MINIMUM SPACING OF WELLS.**

(a) **Distance Requirements:**

- (1) All wells shall be drilled at least three hundred and thirty (330) feet from the nearest well or authorized well site and at least fifty (50) feet from the nearest property line. However, for wells used solely for domestic and livestock use, this distance may be decreased to a minimum of ten (10) feet from any property line provided the annular space between the casing and the borehole wall is cemented from the land surface to the top of

the production layer.

*[Rule amended by Board Action - September 5, 2007]*

- (2) In the event the well is being drilled within two hundred and eighty (280) feet of a property line, then the distance between the wells or authorized well sites along the property line shall be at least six hundred and sixty (660) feet and at least fifty (50) feet from the nearest property line.
- (3) In the interest of protecting life and for the purpose of preventing waste and preventing confiscation of property, the Board reserves the right in particular subterranean water zones and/or reservoirs to enter special orders increasing or decreasing distances provided by this rule.

*[Rule amended by Board Action - September 5, 2007]*

#### **RULE 9.2 - WELL DENSITY.**

- (a) Subject to Rule 9.1, paragraph (a) (1) et seq. above, no more than a cumulative total of sixteen **16 non-exempt wells**, excluding non-exempt domestic or livestock wells located on 10 acres or less, whether drilled prior to or subsequent to enactment of this rule shall be permitted per survey section (640 acres) (hereinafter referred to as "drilled to density"). In the event the applicant owns less than a full section or the survey section contains more or less than 640 acres, then the number of wells permitted for said tract shall be proportionately increased or reduced so that the total number of wells permitted shall be established by dividing the number of acres owned by the number of acres in the section and multiplying by sixteen (16).

*[Rule amended by Board Action - September 5, 2007]*

- (b) In determining the total number of permitted wells allowed per tract over forty (40) acres, if the calculation indicates a fraction of a well up to and including 0.500 of a well, the number shall be rounded down to the last full well; if the calculation indicates a fraction of a well 0.501 of a well and above, the number shall be rounded up to the next full well. District personnel shall use the most current tax roll for obtaining the acreage involved. In the event, the acreage is not listed in the tax roll, then the acreage listed on the ownership map or other legal documentation provided by applicant shall be used.
- (c) In applying this rule, if the property is "Drilled to Density", and one of the existing non-exempt wells is incapable of producing in excess of 17.4 gpm, the District may issue an additional permit for that property. The land owner or his agent must within four **(4) months** of the issuance of the permit or extension date thereof declare in writing which well he desires to produce. Within thirty **(30) days** after determining which well will be retained for production, the well that is not to be produced shall be plugged and a properly completed Plugging Report shall be submitted to the District on forms supplied by the District. Failure to abide by the rules of the District concerning



the plugging of these wells is a violation of the law and/or the rules of the District and subjects the land owner to legal action by the District. A violation occurs at the end of the thirty (30) day period and continues each day thereafter until the appropriate action is taken to plug the well.

(d) In the event the tract of land is less than forty (40) acres, subject to (a)(1) et seq. above, the district may issue a drilling permit for a well that shall be:

- (1) properly completed with 5 inch or smaller casing; and
- (2) equipped to produce 25 gallons per minute or less (maximum 1½ HP pump).

*[Rule amended by Board Action - November 1, 2006.]*

A land owner desiring a permit under this section must:

- (1) Indicate this request on the drilling permit application; and
- (2) Present well and pump data to District for approval of pump equipment prior to the equipping of the well and production of water.

### **RULE 9.3 - EXCEPTION TO SPACING AND DENSITY RULES.**

(a) In order to protect vested property rights, to prevent waste, or to prevent confiscation of property, the Board may grant an exception to the above spacing and well density regulations. This rule shall not be construed so as to limit the power of the Board, and the powers stated are cumulative only of all other powers possessed by the Board.

(b) If an exception to such spacing and well density regulations is desired, the application shall be submitted by the applicant in writing to the Board at its District Office on forms furnished by the District. Such application and plat shall be signed and certified by some person actually acquainted with the facts who shall state that all the facts therein are true and correct. Incomplete applications will not be accepted by the District.

*[Rule amended by Board Action - September 5, 2007]*

(c) If the application is for an exception to the spacing requirements of Rule 9.1:

- (1) for a well subject to Rule 8.1, other than a domestic or livestock well located on 10 acres or less, the application shall explain the circumstances justifying an exception to the spacing and well density provisions. The application shall be accompanied by a plat or sketch, drawn to scale of one (1) inch equaling six hundred and sixty (660) feet. The plat or sketch shall show thereon the property lines of the tract on which the proposed well is to be located and shall show accurately to scale all wells within (¼) mile of the proposed well site . The application shall also contain the names and addresses of all property owners adjoining the tract on which the well is to be located and all owners of wells within (¼) mile of the

proposed well location. Written notice of the application shall be given by the District to any landowner whose property line is within 50 feet of the proposed well site and any well owner whose well is located within 330 feet of the proposed well site.

- (2) for a domestic or livestock well subject to Rule 8.1(b) located on 10 acres or less, the application shall explain the circumstances justifying an exception to the spacing and well density provisions and shall be accompanied by a plat or sketch showing the property lines of the tract and the footage of the proposed well site to the property line and to all wells located on adjoining property. The application shall be reviewed by the District board of directors who shall either approve or deny the application at a properly noticed meeting, open to the public, without holding a hearing.

*[Rule amended by Board Action - September 5, 2007]*

- (d) If the application is for an exception to the density requirements of Rule 9.2, then the plat or sketch shall show thereon the property lines of the tract on which the proposed well is to be located and the property lines of all other tracts within the survey section. The application shall also contain the names and addresses of all landowners within the survey section. Written notice of the application shall be given by the District to each landowner within the survey section.

*[Rule amended by Board Action - November 1, 2006.]*

- (e) No sooner than ten (10) days after written notice has been given to the applicant and each landowner or well owner required to be notified under Paragraph (c) (1) or (d) above, the Board shall hold a public hearing at which all affected parties may appear and be heard. Following the hearing, the Board shall decide whether or not an exception should be granted. Provided, however, that if the Applicant presents waivers signed by the landowners or well owners required to be notified under Paragraph (c) (1) or (d) above stating that they have no objection to the proposed location of the well site, then the Board may thereupon proceed to decide upon the granting or refusing of such application without holding a hearing.

*[Rule amended by Board Action - September 5, 2007]*

- (f) In deciding to grant an exception, the board may add such conditions or restrictions to the permit application as it deems necessary to prevent waste, or to protect the aquifers. Such conditions or restrictions may include, but are not limited to, the use of the groundwater, the amount of water that can be produced, metering, annual production reports, or other conditions as deemed necessary and prudent by the board.

*[Rule added by Board Action - September 5, 2007]*

- (g) Any changes desired by a landowner to conditions placed on the original permit must be resubmitted to the

board by the permittee for a new exception prior to making any change. Failure to file a request for a new exception is a violation of the District Rules and subjects the land owner to legal action by the district. A violation occurs on the first day the alteration or operation of the well begins and continues each day thereafter until the appropriate permits are approved.

*[Rule added by Board Action - September 5, 2007]*

## **SECTION 10. CAPPING AND PLUGGING OF WELLS**

### **RULE 10.1 - OPEN WELLS TO BE CLOSED OR CAPPED.**

Every owner or operator of any land within the District, upon which is located any open or uncovered well is, and shall be, required to close or cap the same as set forth below and in accordance with Chapter 36, Texas Water Code and subsequent changes thereto:

- (a) The District may require the owner or lessee of land on which an open or uncovered well is located to keep the well closed or capped with a covering capable of sustaining weight of not less than four hundred (400) pounds, except when said well is in actual use by the owner or operator thereof; and no such owner or operator shall permit or allow any open or uncovered well to exist in violation of this requirement.
- (b) Officers, agents and employees of the District are authorized to serve or cause to be served notice upon any owner or operator of a well in violation of this rule, thereby requesting such owner and/or operator to close or cap such well with a covering in compliance herewith.

### **RULE 10.2 - PLUGGING OF ABANDONED OR DETERIORATED WELLS.**

It is the responsibility of the landowner to plug or have plugged a well that is deteriorated or abandoned.

- (a) If a well that does not penetrate any undesirable water zone(s) is deteriorated or abandoned, all removable casing shall be removed from the well and the entire well pressure filled with cement to the land surface. In lieu of filling the entire well with cement to the land surface, one of the following procedures may be followed:
  - (1) The well may be filled with mud, as defined herein, followed by a cement plug not less than ten (10) feet in length, extending down from the land surface;
  - (2) The cement plug may be started from a depth of three (3) feet below land surface and extended not less than ten (10) feet in length; or
  - (3) Wells in potable water formations may be filled with rock or gravel through the water bearing formation, then filled with mud to a level thirteen (13) feet below land surface, followed by a cement plug not less than ten (10) feet in length and three (3) feet below land surface. Dirt or topsoil shall be filled to the surface of the well. Hand dug wells may be filled with rock or gravel through the water bearing formation, then filled with clay soil or caliche

other suitable material to a level six (6) feet below ground level, then filled with dirt to the surface of the well.

- (b) The person that plugs an abandoned or deteriorated well shall, within sixty (60) days after plugging is complete, submit a copy of the plugging report (on forms furnished by the District) to the District.
- (c) Officers, agents and employees of the District are authorized to serve or cause to be served notice upon any owner or operator of a well in violation of this rule, thereby requesting such owner and/or operator to plug such well permanently with a covering in compliance herewith.

**RULE 10.3 - FAILURE TO COMPLY WITH CAPPING OR PLUGGING RULES.**

- (a) In the event any owner or operator fails to comply with the request to either cap or plug a well(s) within thirty (30) days, a written notice shall be delivered to the owner of said well or wells either by certified mail or by priority mail with confirmation of delivery requesting compliance with the rule within ten (10) days of receipt of the written notice. If, after the ten (10) day period, an inspection of the well or wells reveals that the landowner has not complied with the request or refuses to plug or cap a well, any employee, person, firm, or corporation employed by the District may go upon said land and plug or cap said well in a manner complying with this rule and the Well Drillers and Water Well Pump Installers Rules and all expenditures thereby incurred shall constitute a lien upon the land where such well is located.. Any officer, agent, or employee of the District, is authorized to perfect said lien by the filing of the affidavit authorized by §36.118 of the Texas Water Code as amended. All of the powers and authority granted in such section are hereby adopted by the District, and its officers, agents, and employees are hereby bestowed with all of such powers and authority.

**SECTION 11. CHEMICAL INJECTION AND FOREIGN SUBSTANCE SYSTEMS**

**RULE 11.1 - EQUIPMENT REQUIREMENTS FOR THE PROTECTION OF GROUNDWATER QUALITY.**

All irrigation distribution systems or water distribution systems into which any type of chemical (except disinfecting agents) or other foreign substances will be injected into the water pumped from water wells shall be equipped with an in-line, automatic quick-closing check valve capable of preventing pollution of the groundwater. The required equipment shall be installed on all systems whenever a pump is installed or repaired or at the time of a chemical injection, chemigation or foreign substance unit is added to a water delivery system. The type of check valve installed shall meet the specifications detailed in the provisions of the Texas Department of Licensing and Regulation, §76.1007. Technical Requirements - Chemical Injection, Chemigation, and Foreign Substance Systems.

**SECTION 12. WELL DRILLERS AND PUMP INSTALLERS**

**RULE 12.1 - PERSONS AUTHORIZED TO DRILL WELLS AND INSTALL PUMPS.**

Only persons who are licensed water well drillers and/or licensed commercial pump installers, in good standing with the

Department of Licensing and Regulation Texas Water Well Drillers Board, or persons exempt under §76.300 of the Texas Administrative Code, are allowed to either drill water wells or perform work on pumps or irrigation systems within the District. Individual landowners who are not required to be licensed may drill water wells on their property provided that:

- (1) the wells are completed according to State and District completion requirements;
- (2) well reports are completed and submitted to the District within sixty (60) days of completion of the well; and
- (3) well registration forms are properly completed and filed with the District.

**RULE 12.2 - RESPONSIBILITY TO COVER OR CAP NEWLY DRILLED WELL.**

- (a) It shall be the responsibility of the driller of a newly drilled well to place a cover or cap over the boring or casing, that is not easily removable, if the well is to be left unattended without a pump installed. It shall be the responsibility of the pump installer to place a cap over the casing that is not easily removable if the well is to be left unattended with the pump removed.
- (b) Any licensed person who knowingly violates this rule, the State Statutes, or the Water Well Drillers and Pump Installers rules, may be subject to an administrative penalty, reprimand, or suspension or revocation of their license by the Texas Commission of Licensing and Regulation or any subsequent agency with jurisdiction thereof.

**RULE 12.3 - RESPONSIBILITY TO SUBMIT APPROVED DRILLING PERMIT AND WELL REPORT.**

- (a) It shall be the responsibility of the well driller to submit an approved copy of the Drilling Permit along with the completed Well Report to the District within 60 days of completing a non-exempt well.
- (b) Any licensed person who violates this rule is subject to enforcement of these rules as stated in Section 5 - Enforcement of Rules.

**SECTION 13. WATER WELL DRILLING, COMPLETING, CAPPING, AND PLUGGING**

**RULE 13.1 - WELL DRILLING, COMPLETION, CAPPING AND PLUGGING.**

**(a) Responsibilities of the Well Driller and Landowner.**

All well drillers, landowners drilling their own wells, and persons having a well drilled, deepened, or altered shall adhere to the provisions of Texas Department of Licensing and Regulation, Title 16, Texas Administrative Code §76.702, Well Drilling, Completion, Capping and Plugging as contained in the State Water Well Drillers and Water Well Pump Installers Rules, as amended, prescribing the location of wells and proper drilling, completion, capping, and plugging of wells.

**(b) Location and Standards of Completion for Wells.**

Wells shall be located and completed in accordance with the provisions of Texas Department of Licensing and

Regulation, §76.1000, Locations and Standards of Completion for Wells, as amended.

(c) **Reporting Undesirable Water or Constituents.**

All well drillers including landowners drilling their own wells shall adhere to the provisions of the State Water Well Drillers and Pump Installers Rules, Texas Department of Licensing and Regulation, §76.701 and any subsequent changes or amendments, when reporting any undesirable water or constituents that have been encountered.

(d) **Standards of Completion for Water Wells Encountering Undesirable Water or Constituents.**

If a water well driller or landowner drilling his/her own well knowingly encounters undesirable water or constituents and the well is not plugged or made into a completed monitoring well, the driller shall complete the well in accordance with Texas Department of Licensing and Regulation, §76.1001, Standards of Completion for Water Wells Encountering Undesirable Water or Constituents, as amended.

(e) **Standards for Wells Producing Undesirable Water or Constituents.**

Wells completed to produce undesirable water shall be completed in accordance with Texas Department of Licensing and Regulation, §76.1002, Standards for Wells Producing Undesirable Water or Constituents, as amended.

(f) **Re-completions.**

The landowner shall have the continuing responsibility of insuring the integrity of the well in accordance with Texas Department of Licensing and Regulation, §76.1003, Re-completions, as amended.

(g) **Standards for Capping and Plugging of Wells and Plugging Wells that Penetrate Undesirable Water or Constituent Zones.**

Wells must be capped and plugged in accordance with Texas Department of Licensing and Regulation, §76.1004, Standards for Capping and Plugging of Wells and Plugging Wells that Penetrate Undesirable Water or Constituent Zones, as amended.

(h) **Standards for Water Wells (drilled before June 1, 1983).** Wells drilled prior to June 1, 1983, unless abandoned, shall be grandfathered without further modification unless the well is found to be a threat to public health and safety or to water quality as described in the provisions of the Texas Department of Licensing and Regulation, §76.1005, Standards for Water Wells (drilled before June 1, 1983), as amended.

## **SECTION 14. AQUIFER STORAGE AND RECOVERY PROJECTS**

### **RULE 14.1 - PERMIT REQUIRED.**

- (a) No injection well may be drilled in any applicable aquifer for the purpose of storing surface water or groundwater without first obtaining a permit from the District.

(b) The permit may be for any term proscribed by the Board and may be renewed at the end of the term.

(c) The permit will be processed in accordance with these Rules.

**RULE 14.2 - APPLICATION.**

(a) application for an Aquifer Storage and Recovery injection well must include the following:

- (1) all information required for an application for a Class V injection well before the Texas Commission on Environmental Quality;
- (2) a map or plat showing the injection facility and the aquifer in which the water will be stored; and
- (3) a map or plat showing the location of all water wells completed to the same aquifer within a five-mile radius of the proposed injection site.

(b) applicable application fee must accompany the application

**RULE 14.3 - BOARD CONSIDERATION.**

(a) The Board shall consider the following:

- (1) whether the introduction of water into the aquifer will alter the physical, chemical, or biological quality of native groundwater to a degree that would render the groundwater produced from the aquifer harmful or detrimental to people, animals, vegetation, or property, or require treatment prior to beneficial use; and
- (2) whether the water stored can be successfully harvested without causing undue hardship to the aquifer or any user thereof.

(b) The Board may consider all relevant facts including the following:

- (1) the location and depth of the aquifer in which the stored water will be located;
- (2) the nature and extent of the surface development and activity above the stored water; and
- (3) the ability of the permittee to determine the compatibility of the stored water with the resident water and monitor the impact on the receiving aquifer.

**RULE 14.4 - PERMIT CONDITIONS.**

(a) The Board may include any permit conditions necessary to ensure the safety, quality, and quantity of groundwater available for withdrawal by other well owners.

(b) Violation of any permit condition may result in cancellation of the permit, civil penalties, or both.

**SECTION 15. RECHARGE FACILITIES**

**RULE 15.1 - APPLICATION AND PERMITTING REQUIREMENTS.**

Applications shall be made to and permits must be obtained from the Board before installing and/or operating a recharge facility as defined herein. Such applications shall be on forms provided by the District and shall be in accordance with

and contain the information called for in the form of application.

**RULE 15.2 - RULES FOR FILING APPLICATIONS.**

The application shall be executed by a party having knowledge of the facts called for on the form.

**RULE 15.3 - INFORMATION TO BE PROVIDED IN APPLICATION.**

The following information will be provided in or must be submitted with the application, along with any applicable application fee:

- (1) the name and address of the applicant;
- (2) the name and address of the fee owner(s) of the land upon which the recharged facility will be located;
- (3) the legal description of the exact proposed location of the recharge facility;
- (4) the time schedule for construction and/or operation of the facility;
- (5) the names and addresses of the property owners within one-half (1/2) mile of the proposed recharge facility location, and the location of any wells on those properties;
- (6) a complete construction and operations plan that will include, but is not limited to, information as to:
  - (i) a technical description of the facility to be used for recharge;
  - (ii) the source of the water to be recharged;
  - (iii) the quality of the water to be recharged;
  - (iv) the volume of water to be recharged;
  - (v) the rate at which the water will be recharged; and
  - (vi) the formation into which water will be recharged;
- (7) scientific evidence showing that the proposed operation will not:
  - (i) endanger the structural characteristics of the formation receiving the recharged water;
  - (ii) cause pollution; or
  - (iii) cause waste; and
- (8) any additional information that may be required by the Board.

**RULE 15.4 - NOTICE OF HEARING.**

(a) Not less than thirty (30) days before the date set for District consideration of an application, the District shall mail notice by first-class mail, postage prepaid to:

- (1) the applicant, the records of whose application has been filed with the District; and
- (2) the property owners within one-half (1/2) mile of the proposed recharge facility location.

(b) Because of the potential to impact areas outside a one-half (1/2) mile radius, notice of the application shall be



published by the District in a newspaper of general circulation in the District.

(c) The notice shall contain the following:

- (1) the name and address of the applicant;
- (2) the date on which the application was filed;
- (3) the time and place of the hearing;
- (4) the location of the proposed recharge facility; and
- (5) a brief summary of the information included in the application.

**RULE 15.5 - HEARING**

A hearing on an application may be heard without the necessity of issuing further notice other than the time and place where the Board meeting is to take place. Hearings shall be conducted in accordance with provisions stipulated in these Rules.

**RULE 15.6 - MONITORING AND REPORTING.**

The operator of a recharge facility shall be required to keep records and make reports to the District regarding the operation of the recharge facility. Reports to the District shall be made on a monthly basis, beginning at the time a permit to operate is issued. Such reports shall include, but are not limited to:

- (1) volumes of water recharged through the recharge facility;
- (2) the source of the water recharged through the recharge facility;
- (3) the quality of the water recharged through the recharge facility; and
- (4) additional information as may be specifically required by a permit to operate a recharge facility.

**RULE 15.7 - RESPONSIBILITY**

The owner of a recharge facility shall assume and shall be charged with strict liability for the prevention of pollution and waste, as these terms are defined herein, from such facility, as well as damage to the recharged formation by reason of the operation of said facility.

**SECTION 16. TRANSPORTATION OF WATER FROM THE DISTRICT**

**RULE 16.1 - PERMIT REQUIRED.**

In order to conserve, preserve, protect, and prevent waste of the groundwater in the District, and to thereby insure the continuing health, welfare, and safety of the citizens of this District, all persons or entities desiring to transport groundwater outside of the boundaries of the District must make application and obtain permits from the District before installing and/or operating a transportation facility and/or pipeline and or equipment.

**RULE 16.2 - EXCEPTIONS.**

A groundwater transportation permit is not required for transfers of groundwater from the District in the following cases:

- (1) transfers of groundwater from the District from any well currently in operation located within the District prior to the effective date of this Rule provided that amount of water transported from such well annually shall not exceed the greatest amount of water transported in any one of the previous three (3) calendar years;
- (2) transfers of groundwater from the District which are incidental to beneficial use or which take place only sporadically; or,
- (3) transfers of groundwater from the District of less than twenty-five (25) acre feet per year.

**RULE 16.3 - APPLICATION.**

Applications shall be made and permits must be obtained from the District before installing and/or operating a transportation facility. Such applications shall be on forms provided by the District and shall be in accordance with and contain the information called for in the form of application. Otherwise, the application will not be considered. Water wells to be used for the transportation of water out of the District shall be subject to spacing and production requirements as described herein. The Board reserves the right to approve a transportation permit application at a reduced rate. Due to the unpredictable nature of aquifer recharge in the District, the Board reserves the right to reduce the production limits of the well(s) when the water levels in the well(s) drop to fifty percent (50%) of their original static water levels. Construction of a transportation facility must commence within two (2) years of the issuance of the permit, or the permit will be invalid.

**Application Requirements:** The permit provided for herein must be applied for and filed with the District on the form or forms promulgated by the District hereunder and such permit must be obtained from the District prior to the proposed transporting of water, all in accordance with the provisions of this rule. The application shall be in writing and sworn to and executed by a party having knowledge of the facts called for on the form. Knowingly or unknowingly falsifying information on a permit application will invalidate the application and the permit. The following information shall be provided in or be submitted with an application :

- (1) the name, post office address and place of residence or principal office of the applicant;
- (2) the name and address of the property owner(s) and the legal description of the land upon which the well(s) are or will be located to produce water to be transported;
- (3) the coordinates (latitude and longitude) of the well(s) from which water is to be produced for transport outside the District;
- (4) the names and addresses of the property owners within one-half (½) mile of the location of the well(s) from

- which water is to be transported and the location of any wells on those properties;
- (5) the nature and purposes of the proposed use and the amount of water to be used for each purpose;
  - (6) the time schedule for construction and/or operation of the facility;
  - (7) a complete construction and operations plan that includes, but not limited to, information as to:
    - (i) a technical description of the proposed well(s) and production facility, including the depth of the well(s) the casing diameter, type and setting of the casing, the perforation interval of the casing, cementing information, and the size of the pump(s);
    - (ii) a technical description of the facilities to be used for the transportation of the water;
  - (8) the volume of water to be transported annually;
  - (9) scientific evidence showing that the proposed operation will not:
    - (i) cause pollution; or cause waste;
    - (ii) cause a significant decline in the water levels.
  - (10) provide information showing the effect of the proposed transportation on the quantity and quality of water available within the District;
  - (11) identify any other possible sources which could be used for the stated purposes, including quality and quantity of such alternate sources;
  - (12) identify any other liquids that could be substituted for the fresh ground water and possible sources of such liquid including quantity and quality.
  - (13) a water conservation plan and a drought management plan;
  - (14) the application must be accompanied by a map or plat drawn on a scale not less than one inch equals 4,000 feet, showing substantially:
    - (i) the location of the existing or proposed well; and
    - (ii) the location of the existing or proposed water transporting facilities; and
    - (iii) the location of the proposed or increased use or uses.
  - (15) static water levels of existing well(s) shall be obtained either form original drillers reports or by measurement of District personnel and be included in the application;
  - (16) additional information that may be required by the Board;
  - (17) the application must be accompanied by an initial application fee in the amount of five hundred dollars **(\$500.00)**. The application fee may be amended as may be determined by the Board to cover all reasonable costs for processing the application.

(18) the District shall determine whether the application, maps, and other materials comply with the requirements of this Act. The District may require amendment of the application, maps, or other materials to achieve necessary compliance.

**RULE 16.4 - HEARING AND APPLICATION EVALUATION.**

(a) **Notice of Hearing:** Within 30 days after the date the administratively complete application is submitted, the District shall set a date for a hearing on the application. A hearing shall be held within 35 days after the setting of the date and the district shall act on the application within 35 days after the date of the hearing. Notice of the hearing shall be given by:

(1) first-class mail not less than thirty (30) days before the date set for District consideration of the transportation permit application. Notice shall be mailed to:

- (i) the applicant, whose application has been filed with the District;
- (ii) the property owners within one-half(½) mile of the location of the well(s) from which water is to be produced and transported; and
- (iii) due to the potential impact to wells in areas outside a one-half (½) mile radius, notice of the hearing on the application shall be published by the District in a newspaper of general circulation in the District.

(2) The notice shall include:

- (i) the name and address of the applicant;
- (ii) the date the application was filed;
- (iii) the location, purpose, and proposed use of the well from which the water to be transported is produced or to be produced;
- (iv) the amount of water to be transported monthly ;
- (v) a description of the transportation facility;
- (vi) the time and place of the hearing; and
- (vii) any additional information the District considers necessary.

(b) **Hearing:** At the time and place stated in the notice, the District shall hold a hearing on the application. The hearing may be held in conjunction with any regular or special meeting of the District, or a special meeting may be called for the purpose of holding a hearing. Any person may appear at the hearing, in person or by attorney, or may enter his appearance in writing. Any person who appears may present evidence, orally or by affidavit, in support or in opposition to the issuance of the permit, and it may hear arguments.

(1) After the hearing, the District shall make a written decision granting or denying the application. The application

may be granted in whole or in part. Any decision to grant a permit, in whole or in part, shall require a majority vote of Directors present.

- (2) Pursuant to Water Code §36.122, before approving any permit for transport of groundwater outside of the District boundaries, the District shall consider the following:
  - (i) the availability of water within the district and in the proposed receiving area during the period for which the water supply is requested;
  - (ii) the availability of feasible and practical alternative supplies to the applicant;
  - (iii) the amount and purposes of use in the proposed receiving areas of the water supply;
  - (iv) the projected effect of the proposed transfer on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the district; and
  - (v) the approved regional water plan and certified district management plans.
- (3) Such application shall not be approved unless the Board of Directors finds and determines that:
  - (i) the transporting of water for use outside the District applied for will not substantially affect the quantity and quality of water available to any person or property within the District;
  - (ii) that all other feasible sources of water, available to the person or entity requesting a permit have been developed and used to the fullest;
  - (iii) that no other liquid could be feasibly substituted for the fresh groundwater; and
  - (iv) that the proposed use, of any part of the proposed use, will not constitute waste as defined under the laws of the State of Texas.
- (4) In evaluating the application, the District shall consider:
  - (i) the quantity of water proposed to be transported; the term for which the transporting is requested;
  - (ii) the safety of the proposed transportation facilities with respect to the contamination of the aquifer;
  - (iii) the nature of the proposed use; whether the amount of withdrawal of the groundwater requested is reasonable;
  - (iv) whether withdrawal of such an amount is contrary to the conservation and use of groundwater;
  - (v) whether the withdrawal is not otherwise detrimental to the public welfare; and
  - (vi) such other factors as are consistent with the purposes of the District.

**RULE 16.5 - PERMIT PROVISIONS AND FEES.**

- (a) **Permits:** On approval of an application, the District shall issue a permit to the applicant. The applicant's right to transport shall be limited to the extent and purposes stated in the permit. A permit shall not be transferable except

as provided in Rule 16.7.

The permit shall be in writing and signed by the Board President and attested by the Board Secretary and it shall contain substantially the following information:

- (1) the name of the person to whom the permit is issued;
  - (2) the location of the well(s) from which water is to be transported;
  - (3) the date the permit is issued;
  - (4) the term for which the permit is issued, not to exceed five years from the issue date if construction of a conveyance system has not been initiated prior to issuance of the permit, and not to exceed 30 years if construction of a conveyance system has been initiated prior to the issuance of the permit;
  - (5) the date the original application was filed;
  - (6) the destination and use or purpose for which the water is to be transported;
  - (7) the maximum quantity of water to be transported monthly ;
  - (8) a requirement that the water withdrawn under the transport permit be put to beneficial use at all times;
  - (9) any restrictions on the rate or amount of withdrawal;
  - (10) the time within which construction or work on the well transportation facilities, including conveyance facilities and equipment, must begin and the time within which it must be completed;
  - (11) a statement that the permittee will comply with all well closure and plugging guidelines of the District;
  - (12) a statement that the permittee will comply with any drought contingency plan prescribed by the District; and
  - (13) any other information the District prescribes.
- (b) The District may set and collect fees for the transport of water out of the District. In order to monitor and maintain the quality of the groundwater and to investigate the feasibility of enhanced recharge projects to increase the amount of available groundwater for use by all well owners, fees of one dollar (\$1.00) per acre foot for water used in agriculture, and seventeen cents (\$0.17) per thousand (1,000) gallons for all other uses, may be assessed by the District. Fees are due the first of each month, and are to be included with the monthly pumping report. These fees may also be used to:
- (1) pay expenses related to enforcement of Chapter 36, TWC and District rules;
  - (2) mitigate the economic impact and other detriments that will result from the use of water to service interests outside the District; and
  - (3) for any other use as allowed by Chapter 36, TWC and District rules.
- (c) A transportation permit shall be valid for a period of up to five (5) years, if construction of a conveyance system has

not been initiated prior to issuance of the permit, and not to exceed thirty (30) years if construction of a conveyance system has been initiated prior to the issuance of the permit. If construction of a conveyance system is begun before the expiration of the initial term, the term shall automatically be extended to the terms not to exceed thirty (30) years; and shall contain such other standard and special provisions as are set out by the District.

- (d) The District shall assess and the applicant shall pay a fee for costs incurred by the District for hydrological and hydrogeological studies including but not limited to, groundwater modeling conducted by the District to process an application for the transportation of water from the District.

**RULE 16.6 - MONITORING AND REPORTING.**

- (a) All transporting facilities for wells subject to registration and permitting shall be equipped with flow monitoring devices approved by the District and shall be available for inspection by District personnel at all reasonable times.
- (b) The operator of a transportation facility shall be required to keep records and make reports to the District as to the operation of the transportation facility.
- (c) Permitted groundwater transportation facilities shall submit reports to the District on a monthly basis, beginning at the time a permit is issued to operate. Such reports shall include, but are not limited to, the volume of water transported during the preceding month.

**RULE 16.7 - PERMIT EXTENSIONS, TRANSFERS, AND REVOCATION.**

- (a) A permittee may apply for an extension of any permit granted under this subsection or for transfer of a permit to another person. The District shall consider and grant or deny such application for extension or transfer of a permit in the same manner as is provided herein for the application for a permit.
- (b) Any permit granted under this subsection shall be subject to revocation for non use or waste by the permittee, or for substantial deviation from the purposes or other terms stated in the permit. Revocation of a permit for non use shall require that no water is transported under the permit for a period of five (5) years.
- (c) The owner of the transportation facility shall be held strictly liable for the prevention of pollution and waste, by reason of the operations of said facility.

**SECTION 17. PUBLIC COMPLAINTS AND INFORMAL HEARINGS**

**RULE 17.1 - PUBLIC COMPLAINTS.**

Members of the public having complaints regarding the District's policies, procedures, or operations may present their complaints or concerns to the Board pursuant to the procedures set forth in the District's Manual of Hearings Procedures. The Board intends that, whenever feasible, complaints shall be resolved at the lowest possible administrative level.

**RULE 17.2 - CLOSED MEETING.**

If a complaint involves concerns or charges regarding an employee, it shall be heard by the Board in a closed meeting unless the employee to whom the complaint pertains requests that it be heard in public.

**SECTION 18. HEARINGS**

**RULE 18.1 - TYPES OF HEARINGS**

The District conducts two general types of hearings: adjudicative and rule making.

- (a) **ADJUDICATIVE.** Adjudicative hearings are conducted in accordance with the Lipan Kickapoo Water Conservation District Manual of Hearing Procedures.
  - (1) Permit hearings: Applications, Amendments and Revocations, Exceptions to Spacing Rules. Permit hearings involve permit matters, in which the rights, duties, or privileges of a party are determined after an opportunity for an adjudicative hearing; and
  - (2) Other matters. A public hearing may be held on any matter within the jurisdiction of the duties and responsibilities of the Board, if the Board deems a hearing to be in the public interest, or necessary to effectively carry out the duties and responsibilities of the District. Any matter designated for hearing before the Board may be referred by the Board for hearing before a Hearings Examiner.
- (b) **RULE MAKING.** Rule making hearings involve matters of general applicability that implement, interpret, or prescribe the law or District policy. Rule making hearings are conducted in accordance with §36.101, Texas Water Code.

**RULE 18.2 - GENERAL PROVISIONS.**

- (a) **COMPUTING TIME.** If the day on which compliance is due under the terms and provisions of these Hearing Procedures is a Saturday, Sunday, or legal holiday, then compliance will be due the next day that is not a Saturday, Sunday, or legal Holiday.
- (b) **NOTICE AND SCHEDULING OF HEARINGS.** The General Manager is responsible for giving notice of all hearings and public meetings of the District in the following manner:
  - (1) Notice will be given to each person who requests copies of hearing notices pursuant to the procedures set forth in subsection (3), and any other person the General Manager or Board of Directors deems appropriate. The date of delivery or mailing of notice may not be less than ten (10) calendar days before the date set for the hearing.
  - (2) A copy of the notice must be posted at the District's office and the county courthouse of each county within the District in the place where notices are usually posted. The date of posting shall not be less than 10 business



days before the date of the hearing.

- (3) Any person having an interest in the subject matter of a hearing(s) may receive written notice of such hearing(s) by submitting a request in writing. The request must identify with as much specificity as possible the hearing(s) for which written notice is requested. The request remains valid for a period of one year from the date of the request, after which time a new request must be submitted. Failure to provide written notice under this section does not invalidate any action taken by the Board.
- (4) After giving proper notice, hearings may be held in conjunction with any Regular or Special called meeting of the Board or hearings may be scheduled at other times as deemed appropriate by the Board. All hearings will be held at the District office unless the Board determines that another location would be more appropriate for a specific hearing.

(c) **CONDUCT OF HEARINGS.**

- (1) Hearings will be conducted in such a manner as the Board deems most suitable to the particular case. It is the purpose of the Board to obtain all the relevant information and testimony pertaining to the issue before it as conveniently, inexpensively and expeditiously as possible without prejudicing the rights of either applicants or contestants.
- (2) All hearings will be conducted in conformance with the Lipan-Kickapoo Water Conservation District Manual of Hearings Procedures, the Texas Rules of Civil Procedure and the Texas Rules of Evidence. Where there is a conflict between the District's Manual of Hearings Procedures and the Texas Rules of Civil Procedure and the Texas Rules of Evidence, the procedures set forth in the Manual of Hearings Procedures will prevail.

(d) **CHANGED CONDITIONS.**

The decision of the Board on any matter contained herein may be reconsidered by it of its own motion or upon motion showing changed conditions, or upon the discovery of new and different conditions or facts after the hearing or decision of such matter. If the Board should decide to reconsider a matter after having announced a ruling or decision, or after having finally granted or denied an application, it shall give notice to persons who were proper parties to the original action and such persons shall be entitled to a hearing thereon if they file a request therefor within fifteen (15) days from the date of the mailing of such notice.

**SECTION 19. FINAL ORDERS OF THE BOARD**

**RULE 19.1 - FINAL ORDERS OF THE BOARD.**

The orders of the Board in any non-contested application or proceeding shall become the final order of the Board on the day it is entered by the Board. All orders of the Board in contested applications, appeals or other proceedings shall contain a statement that the same was contested. In such event the order will become final after fifteen (15) days from the entry thereof and be binding on the parties thereto unless a Motion for Rehearing is filed under Sections 17 and 18 hereof.

**REPEAL OF PRIOR REGULATIONS**

All of the previous rules and regulations of the District have been revised and amended; and except as they are herein republished, they are repealed. Any previous rule or regulation which conflicts with or is contrary to these rules is hereby repealed.

**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**

**Adopted August 4, 2004**

\_\_\_\_\_  
**Michael Hoelscher, Secretary**

\_\_\_\_\_  
**A.H. Denis, III, President**

**Amended November 1, 2006**

\_\_\_\_\_  
**Leon Braden, Secretary**

\_\_\_\_\_  
**Michael Hoelscher, President**

**Amended September 5, 2007**

\_\_\_\_\_  
**Leon Braden, Secretary**

\_\_\_\_\_  
**Michael Hoelscher, President**

# **APPENDIX D**

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# LIPAN-KICKAPOO WATER CONSERVATION DISTRICT

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P.O. Box 67  
Vancourt, Texas 76955  
Ph: 325-469-3988 Fax: 325-469-3989

## MANAGEMENT PLAN 2018-2023

**WHEREAS**, the Lipan-Kickapoo Water Conservation District (Water District) was created by Acts of the 70<sup>th</sup> Legislature (1987), p. 2010, Ch. 439, S.B. 1525, in accordance with Article 16, Section 59 of the Constitution of Texas and Chapters 51 and 52 of the Texas Water Code, as amended; and

**WHEREAS**, S.B. 1525 was amended by Acts of the 77<sup>th</sup> Legislature (2001), H.B. 1909, in accordance with Chapters 36 and 49 of the Texas Water Code, as amended; and

**WHEREAS**, the Lipan-Kickapoo Water Conservation District (Water District) was recodified to Special District Local Laws Code; Title 6. Water and Wastewater; Subtitle H. Districts Governing Groundwater; Chapter 8805; by Acts 2009, 81<sup>st</sup> Leg., R.S., Ch. 1139, Sec. 1.05, eff. April 1, 2011; and

**WHEREAS**, the District is required by Chapter 36.1071 of the Texas Water Code to develop and adopt a Management Plan; and

**WHEREAS**, the District is required by Chapter 36.1072 of the Texas Water Code to review and readopt the plan with or without revisions at least once every five years and to submit the adopted Management Plan to the Executive Administrator of the Texas Water Development Board for review and approval if the plan is administratively complete; and

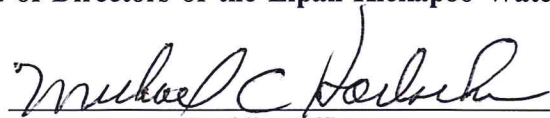
**WHEREAS**, the current Management Plan expires on June 24, 2018 and must be reviewed and replaced with a new Management Plan for 2018-2023, prior to expiration of the current plan; and

**WHEREAS**, after proper notice and hearing, the District Board of Directors has determined that the Proposed Management Plan addresses the requirements of Chapter 36.1071 and is administratively complete and ready for submission to the Texas Water Development Board for review and approval.

**NOW, THEREFORE**, be it resolved, that the Board of Directors of the Lipan-Kickapoo Water Conservation District hereby adopts the Management Plan for 2018-2023; and

**FURTHER**, be it resolved, that this new Management Plan shall become effective immediately upon adoption and final approval of the Texas Water Development Board.

Adopted this 7<sup>th</sup> day of March, 2018, by the Board of Directors of the Lipan-Kickapoo Water Conservation District.

  
Presiding Officer

Attest:

  
Board Secretary

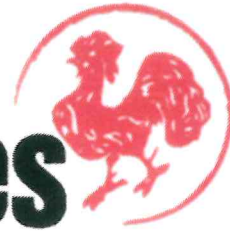
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# **APPENDIX E**

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# Standard-Times



PART OF THE USA TODAY NETWORK

34 W Harris Ave o San Angelo, Texas 76903 o 325-653-1221 o 800-588-1884

## PROOF OF PUBLICATION

STATE OF TEXAS, COUNTY OF TOM GREEN

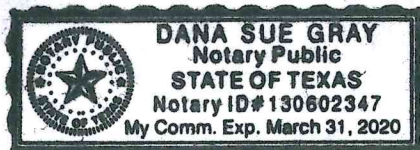
On **February 5, 2018**, personally appeared before me the undersigned, a Notary Public in and for said county and state, , **Pam Hammer** – *Advertising Director* of the **SAN ANGELO STANDARD-TIMES**, a daily newspaper published in San Angelo, County of TOM GREEN, State of Texas and of general circulation in the following counties: **Tom Green, Coke, Concho, Crockett, Irion, Kimble, Mason, McCulloch, Menard, Reagan, Runnels, Schleicher, Sterling, Sutton**. The attached advertisement, a true copy of which is hereto annexed, was published in said newspaper in its issues thereof the following dates: **February 5, 2018**. Subscribed and sworn to before me on **February 5, 2018**.



Advertising Director, San Angelo Standard-Times

Dana Sue Gray Ad # 1908193





**PUBLIC NOTICE**  
Lipan-Kickapoo Water Conservation District  
P.O. Box 67  
Vancourt, Texas 76955  
Ph: 325-469-3988  
Email: [lkwcd@centex.net](mailto:lkwcd@centex.net)  
Website: [lipan-kickapoo.org](http://lipan-kickapoo.org)

A Public Hearing is scheduled to be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas on Wednesday, March 7, at 7:30 am. The purpose of this hearing is to take public comment on a proposed revised Management Plan (2018-2023) for the District. Full text copies of the Proposed Management Plan may be obtained from the Water District office, the district website, by email request, or by calling the district office. Written comments on the proposed Management Plan are being taken until 4 pm, Monday, March 5, 2018. Comments may be mailed, emailed or submitted in person to the Water District.

**NOTICE OF HEARING**  
**ON**  
**PROPOSED MANAGEMENT PLAN**  
**FOR THE**  
**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**  
**Wednesday, March 7, 2018 at 7:30 AM**

A Public Hearing is scheduled to be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas. The purpose of this hearing is to take public comments on the proposed Management Plan (2018-2023) for the District.

**PUBLIC NOTICE**

**SPECIAL MEETING OF THE BOARD OF DIRECTORS**

**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**

The Board of Directors will meet in Special Session on Wednesday, March 7, 2018, immediately following the Public Hearing on the Proposed Management Plan (2018-2023) for the District. The meeting will be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas. Items on this agenda may be taken out of the order indicated.

**AGENDA**

- (1) Call to Order
- (2) Public Comments. \*
- (3) Discussion and possible action on a Change of Well Use Permit Amendment Application from a non-exempt well to an exempt well by Rodney Drgac.
- (4) Discussion and possible action to adopt the Proposed Management Plan (2018-2023) with any revisions as necessary.
- (5) Next regular meeting tentatively set for April 4, 2018 (1<sup>st</sup> Wednesday) at 7:30 AM.
- (6) Adjournment.

*\* Under the Open Meetings Act, Chapter 551, all meetings of the District are open to the Public, except for executive sessions. The Act does not give the public a right to speak at such meetings. However, the Board at its discretion may allow any person to address the Board on any item and for the length of time as determined by the Board.*

Date: February 28, 2018  
Time: 7:29 AM

POSTED February 28, 2018  
At 1:05 o'clock P M  
Julia Miller Julia Miller  
County Clerk, Ruffels County, Texas  
By \_\_\_\_\_ Deputy

**NOTICE OF HEARING**  
**ON**  
**PROPOSED MANAGEMENT PLAN**  
**FOR THE**  
**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**  
**Wednesday, March 7, 2018 at 7:30 AM**

A Public Hearing is scheduled to be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas. The purpose of this hearing is to take public comments on the proposed Management Plan (2018-2023) for the District.

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- (1) Call to Order
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Date: February 28, 2018  
Time: 7:29 AM

#5705  
**FILED**  
The 28 Day of February,  
2018 at 11:42 O'clock A M  
Phillip A. Sewell  
County Clerk, Concho Co. TX  
By [Signature]

**NOTICE OF HEARING**  
**ON**  
**PROPOSED MANAGEMENT PLAN** FILED FOR RECORD  
**FOR THE**  
**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT** 18 FEB 28 PM 2: 52  
**Wednesday, March 7, 2018 at 7:30 AM** ELIZABETH MCGILL  
COUNTY CLERK  
COUNTY OF TARRANT TEXAS

A Public Hearing is scheduled to be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas. The purpose of this hearing is to take public comments on the proposed Management Plan (2018-2023) for the District.

**PUBLIC NOTICE**

**SPECIAL MEETING OF THE BOARD OF DIRECTORS**

**LIPAN-KICKAPOO WATER CONSERVATION DISTRICT**

The Board of Directors will meet in Special Session on Wednesday, March 7, 2018, immediately following the Public Hearing on the Proposed Management Plan (2018-2023) for the District. The meeting will be held at the Lipan-Kickapoo Water Conservation District Office, Suite C, Vancourt Post Office Building, Vancourt, Texas. Items on this agenda may be taken out of the order indicated.

**AGENDA**

- ( 1) Call to Order
- ( 2) Public Comments. \*
- ( 3) Discussion and possible action on a Change of Well Use Permit Amendment Application from a non-exempt well to an exempt well by Rodney Drgac.
- ( 4) Discussion and possible action to adopt the Proposed Management Plan (2018-2023) with any revisions as necessary.
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*\* Under the Open Meetings Act, Chapter 551, all meetings of the District are open to the Public, except for executive sessions. The Act does not give the public a right to speak at such meetings. However, the Board at its discretion may allow any person to address the Board on any item and for the length of time as determined by the Board.*

Date: February 28, 2018  
Time: 7:29 AM

# **APPENDIX F**

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## Lipan-Kickapoo WCD

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**To:** info@tomgreenwcid1.org; allison.strube@cosatx.us; chuckb@ucratx.org;  
citymanager@ballinger-tx.com; john.donley@cityofwinters.org; jgrant@crmwd.org  
**Subject:** LKWCD Proposed Management Plan 2018-2023  
**Attachments:** PROPOSED\_Management Plan\_Jan17\_2018\_with\_Appendix.pdf

# Lipan-Kickapoo Water Conservation District

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P.O. Box 67  
Vancourt, Texas 76955  
Ph: 325-469-3988 Fax: 325-469-3989  
Email: [lkwcd@centex.net](mailto:lkwcd@centex.net) Website: [www.lipan-kickapoo.org](http://www.lipan-kickapoo.org)

January 30, 2018

**Subject:** Lipan-Kickapoo WCD Management Plan - PROPOSED

The Lipan-Kickapoo WCD has drafted a new management plan to replace the one adopted in 2013 that is set to expire in June of this year. Under §36.1072, Texas Water Code, as amended, the District must review and adopt a new plan every five years and submit it to the Texas Water Development Board for review and approval.

Under §36.1071, Texas Water Code, as amended, the Lipan-Kickapoo WCD is required to coordinate with surface water entities located within the district in preparation of its management plan. Although there is only one surface water entity located within the district's boundaries, the district has chosen to submit a copy of this proposed management plan not only to the Tom Green County Water Control and Improvement District #1 that is located within the District boundaries, but also to the surface water entities that have storage either in the district, partially in the district, or adjacent to the district for review and comments. This includes:

- 1) Tom Green County Water Control and Improvement District #1
- 2) City of San Angelo
- 3) Upper Colorado River Authority
- 4) City of Winters
- 5) Colorado River Municipal Water District
- 6) City of Ballinger
- 7) Region F Regional Water Planning Group.

Please review this management plan and submit any comments or suggestions to the District by March 5, 2018. A public hearing will be held on Wednesday, March 7, 2018 at 7:30 AM at the Lipan-Kickapoo WCD office in Vancourt to take additional comments on the proposed plan. Immediately following the hearing, the Board of Directors will meet and review all comments and make any necessary changes to the proposed plan. The proposed plan will then be considered for adoption by the Board of Directors for submission to the Texas Water Development Board for final approval of the plan.

If you have any questions or need additional information, as you review this plan, please contact me at 469-3988. We appreciate your attention and cooperation in reviewing this management plan.

Thank you.

Allan J. Lange

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:32 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <info@tomgreenwcid1.org> ...  
**Attachments:** details.txt

Your message <[info@tomgreenwcid1.org](mailto:info@tomgreenwcid1.org)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[info@tomgreenwcid1.org](mailto:info@tomgreenwcid1.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:33 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <allison.strube@cosatx.us> ...  
**Attachments:** details.txt

Your message <[allison.strube@cosatx.us](mailto:allison.strube@cosatx.us)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[allison.strube@cosatx.us](mailto:allison.strube@cosatx.us)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:33 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <chuckb@ucratx.org> ...  
**Attachments:** details.txt

Your message <[chuckb@ucratx.org](mailto:chuckb@ucratx.org)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[chuckb@ucratx.org](mailto:chuckb@ucratx.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:32 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <john.donley@cityofwinters.org> ...  
**Attachments:** details.txt

Your message <[john.donley@cityofwinters.org](mailto:john.donley@cityofwinters.org)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[john.donley@cityofwinters.org](mailto:john.donley@cityofwinters.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:32 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <jgrant@crmwd.org> ...  
**Attachments:** details.txt

Your message <[jgrant@crmwd.org](mailto:jgrant@crmwd.org)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[jgrant@crmwd.org](mailto:jgrant@crmwd.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Tuesday, January 30, 2018 9:33 AM  
**To:** lkwd@centex.net  
**Subject:** Delivery Notification (success) to <citymanager@ballinger-tx.com> ...  
**Attachments:** details.txt

Your message <[citymanager@ballinger-tx.com](mailto:citymanager@ballinger-tx.com)> was successfully relayed.  
Subject: LKWCD Proposed Management Plan 2018-2023 For <[citymanager@ballinger-tx.com](mailto:citymanager@ballinger-tx.com)>, Relayed



## Lipan-Kickapoo WCD

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**To:** 'info@tomgreenwcid1.org'; 'allison.strube@cosatx.us'; 'john.donley@cityofwinters.org';  
'jgrant@crmwd.org'; 'chuckb@ucratx.org'; 'citymanager@ballinger-tx.com'  
**Subject:** LKWCD "ADOPTED" Management Plan 2018-2023  
**Attachments:** Adopted\_Managemen\_Plan\_Mar\_7\_2018\_with\_Appendix.pdf

# Lipan-Kickapoo Water Conservation District

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P.O. Box 67  
Vancourt, Texas 76955  
Ph: 325-469-3988 Fax: 325-469-3989  
Email: [lkwcd@centex.net](mailto:lkwcd@centex.net)

March 7, 2018

**Subject:** Lipan-Kickapoo WCD Management Plan - ADOPTED

The Lipan-Kickapoo WCD has adopted a new management plan to replace the one adopted in 2013 that is set to expire later this year. Under §36.1072, Texas Water Code, as amended, the District must review and adopt a new plan every five years and submit it to the Texas Water Development Board for review and approval.

Under §36.1071, Texas Water Code, as amended, the Lipan-Kickapoo WCD is required to coordinate with surface water entities located within the district in the preparation of its management plan. In compliance with this chapter of the water code, we have attached a copy of the new adopted management plan for your review and comments. Although there is only one surface water entity located within the district's boundaries, the district has chosen to submit a copy of the adopted management plan not only to the Tom Green County Water Control and Improvement District #1 that is located within the District boundaries, but also to the surface water entities that have storage either in the district, partially in the district, or adjacent to the district for review and comments. This includes:

- 1) Tom Green County Water Control Water Control and Improvement District #1
- 2) City of San Angelo
- 3) Upper Colorado River Authority
- 4) City of Winters
- 5) Colorado River Municipal Water District
- 6) City of Ballinger
- 7) Region F Regional Water Planning Group.

Please review this management plan and submit any comments or suggestions to the District. If you have any questions or need additional information, as you review this plan, please contact me at (325) 469-3988. We appreciate your attention and cooperation in reviewing this management plan.

Sincerely,

Allan J. Lange  
General Manager  
Lipan-Kickapoo Water Conservation District  
P.O. Box 67  
Vancourt, TX 76955  
Wk: (325) 469-3988

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 1:12 PM  
**To:** lkxcd@centex.net  
**Subject:** Delivery Notification (success) to <info@tomgreenwcid1.org> ...  
**Attachments:** details.txt

Your message <[info@tomgreenwcid1.org](mailto:info@tomgreenwcid1.org)> was successfully relayed.  
Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[info@tomgreenwcid1.org](mailto:info@tomgreenwcid1.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 12:40 PM  
**To:** lkxcd@centex.net  
**Subject:** Delivery Notification (success) to <chuckb@ucratx.org> ...  
**Attachments:** details.txt

Your message <[chuckb@ucratx.org](mailto:chuckb@ucratx.org)> was successfully relayed.  
Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[chuckb@ucratx.org](mailto:chuckb@ucratx.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 12:39 PM  
**To:** lkxcd@centex.net  
**Subject:** Delivery Notification (success) to <allison.strube@cosatx.us> ...  
**Attachments:** details.txt

Your message <[allison.strube@cosatx.us](mailto:allison.strube@cosatx.us)> was successfully relayed.  
Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[allison.strube@cosatx.us](mailto:allison.strube@cosatx.us)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 12:40 PM  
**To:** lkxcd@centex.net  
**Subject:** Delivery Notification (success) to <citymanager@ballinger-tx.com> ...  
**Attachments:** details.txt

Your message <[citymanager@ballinger-tx.com](mailto:citymanager@ballinger-tx.com)> was successfully relayed.  
Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[citymanager@ballinger-tx.com](mailto:citymanager@ballinger-tx.com)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 12:38 PM  
**To:** lkwcd@centex.net  
**Subject:** Delivery Notification (success) to <jgrant@crmwd.org> ...  
**Attachments:** details.txt

Your message <[jgrant@crmwd.org](mailto:jgrant@crmwd.org)> was successfully relayed.

Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[jgrant@crmwd.org](mailto:jgrant@crmwd.org)>, Relayed

## Lipan-Kickapoo WCD

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**From:** Mail Delivery Subsystem [postmaster@wcc.net]  
**Sent:** Wednesday, March 07, 2018 12:38 PM  
**To:** lkwcd@centex.net  
**Subject:** Delivery Notification (success) to <john.donley@cityofwinters.org> ...  
**Attachments:** details.txt

Your message <[john.donley@cityofwinters.org](mailto:john.donley@cityofwinters.org)> was successfully relayed.

Subject: LKWCD "ADOPTED" Management Plan 2018-2023 For <[john.donley@cityofwinters.org](mailto:john.donley@cityofwinters.org)>, Relayed