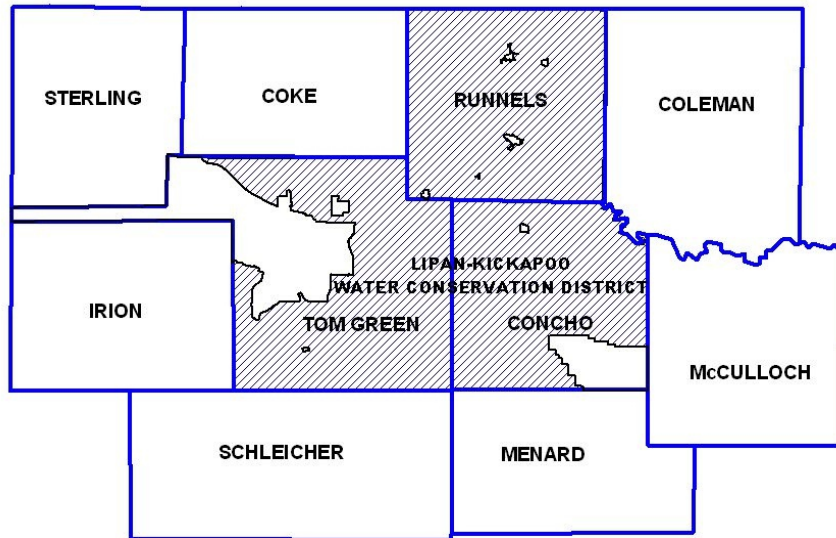


LIPAN-KICKAPOO WATER CONSERVATION DISTRICT



GROUNDWATER MANAGEMENT PLAN

2023-2028

Adopted March 8, 2023

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LIPAN-KICKAPOO WATER CONSERVATION DISTRICT

MANAGEMENT PLAN — 2023-2028

The Lipan-Kickapoo Water Conservation District (the “District”) was created by the 70th 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 70th Legislature, Regular Session, 1987. In 1995, by Acts of the 74th Legislature, Chapter 52 of the Water Code was repealed and replaced with Chapter 36 of the Water Code effective September 1, 1995.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 81st Legislature, the enabling legislation for the District was renotified 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 70th 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 hydro geologic 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 70th 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: Part 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.

Tom Green County

The largest single land use in the county is agriculture with a total of 1,114,721 acres of which 230,869 acres is crop or farm land and the balance of 883,852 acres is range land.¹ 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 aquifer. Irrigation covers approximately 63,322 acres of the county's crop land.² Pivot irrigation systems have been the primary method of applying irrigation water, but in the last few years a considerable number

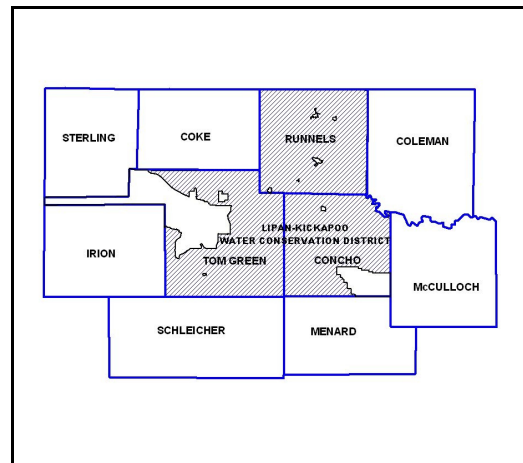


Figure 1. Location of the Lipan-Kickapoo Water Conservation District showing excluded areas.

¹ U.S. Consolidated Farm Services Agency in San Angelo, TX - 2022 Acreage Report.

² [Nass.usda.gov/Publications/AgCensus2017/online_Resources/County_Profiles/Texas/cp48095](https://nass.usda.gov/Publications/AgCensus2017/online_Resources/County_Profiles/Texas/cp48095)

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 560,997 acres of which 109,394 acres is crop or farm land and the balance of 451,602 acres is range land. The crop land 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 and Hickory aquifers. Irrigation covers approximately 4,265 acres of the county's crop land. 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 672,304 acres of which 255,476 acres is crop or farm land and the balance of 416,828 acres is range land. 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 5,363 acres of the county's crop land. The principle methods of irrigation are center pivot, drip irrigation and some furrow irrigation

Overall land use in the District is for agricultural purposes of which approximately 595,739 acres are crop or farm land and 1,752,282 acres are range land. 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 73,150 acres of the District's crop land. The principle method of irrigation is center pivot irrigation, drip irrigation with some furrow irrigation remaining.

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.

²nass.usda.gov/Publications/AgCensus/2017/online_Rsources/County_Profiles/Texascp48395

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 eighteen (18) locally created and locally funded districts that encompass a little less than twenty (19.9) million acres or thirty-one thousand ten (31,010) 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 it’s own unique programs to best serve its constituents.

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:

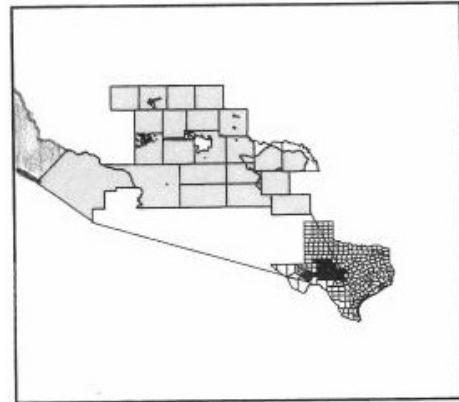


Figure 2. Territory in the West Texas Regional Alliance.

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)	Reeves County UWCD	(2020)

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.

Regional Water Planning

The District has been active in the Region F, Regional Water Planning Group Meetings to provide input in developing and adopting the 2001, 2006, 2011, 2016 and 2021 Regional plans. As the Regional Planning Group moves toward adopting future Regional Plans the District will continue to participate in the planning process.

PURPOSE OF GROUNDWATER 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 ³

Lipan Aquifer - Report 345, “Aquifers of Texas”

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.

³ 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.

Then in 2011, the TWDB in Report 380, “Aquifers of Texas”, 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 not relevant for planning purposes by GMA 7.

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 not relevant 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. There are 13 acre feet/per year for each of the decades from 2020-2070.

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:

https://www.twdb.texas.gov/groundwater/management_areas/gma7.asp

On September 22, 2016, GMA 7 determined and declared the Lipan Aquifer, and the portions of the Edwards Trinity Aquifer within the boundaries of the Lipan-Kickapoo Water Conservation District as not relevant for joint planning purposes within GMA 7.

Modeled Available Groundwater in the District.

There are 13 acre feet/per year available for use for each of the decades from 2020 - 2070 in the Hickory Aquifer within the boundaries of the Lipan-Kickapoo Water Conservation District..

Estimated Historical Groundwater Use within the District

Please refer to Appendix A.

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.

Projected Water Supply Needs

Projected water supply needs in the TWDB estimated historical water use/2022 state water plan data packet (Appendix A) are primarily irrigational. Municipal needs in Concho County, exist for the following water user group. (WUG)s: Millerview-Doole WSC and Concho County. Municipal needs for Runnels County, exist for the following water user groups (WUG): Ballinger, Coleman County SUD, Millersview-Doole WSC, North Runnels WSC, Winters, and Runnels County. Municipal needs in Tom Green County, exist for the following water user groups (WUG): Concho Rural Water, Millersview-Doole WSC, San Angelo, and Tom Green County Please refer to Appendix A, page 11.

Projected Water Management Strategies

Projected water management strategies listed in the TWDB estimated historical water use/2022, state water plan date packet and located within Concho County are: Municipal Conservation, Subordination-San Angelo, Irrigation Conservation-high volume strategy is 539 acre feet by 2070, Subordination-OH Ivie, Millersview-Doole WSC, and Mining Conservation. Runnels County are: Municipal conservation, Subordination-Ballinger, subordination - OH Ivie, Hords Creek, Lake Coleman, San Angelo,, Winters, Winters Lake, Municipal Conservation = Runnels, Miles, Millersview-Doole WSC, North Runnels WSC, and Winters, Concho River Water Project, Mining Conservation, BRA System Operations, and West Texas Water Partnership. Tom Green County: Concho River Water Project, Municipal Conservation: Concho Rural WSC, Dads Supported Living Center, Goodfellow Air Force Base, Millersview Doole WSC, San Angelo and Tom Green County FWSD3, Irrigation Conservation, Mining Conservation, Brush Control, Hickory Well Field Expansion and West Texas Water Partnership. Subordination: San Angelo System Mountain Creek Reservoir, O.H. Ivie Non System Portion. Total high volume strategy is 28,910 by 2070. Please refer to Appendix A.

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.

MANAGEMENT OF GROUNDWATER SUPPLIES, AND 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 ensure 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 hydro geologic properties and to quantify this resource for prudent planning and efficient use.

Management Objective

1.1 Each year measure, record, and accumulate a historic record of static water levels in approximately 70 wells. These wells are privately owned by landowners within the district. We will measure these wells quarterly.

Performance Standards

1.1a - District will continue to maintain a water level monitoring network. (A number of wells that are measured on a regular basis as well as water quality tests performed on various wells at various times.).

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. The District will investigate instances of potential waste of groundwater within 72 hours of receiving complaints

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 - The Staff will report to the Board of Directors as needed regarding potential waste of groundwater and include the number of investigations and newly registered wells. .

2.1 c - All instances of waste or contamination will be investigated and the proper corrective measures will be taken to fix the issue as quickly as possible.

2.1d - Random water sampling is conducted to verify that aquifer contamination is not occurring.

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.

Management Objective

3.2 Each year, the district will participate in the regional planning process by attending the *Region F* water planning group meetings to encourage the development of surface water supplies to meet the needs of water user groups in the district. A representative of the district will attend a minimum of 50% of the *Region F* regional water planning group meetings.

Performance Standards

3.2 a The district will, in the annual report, document the participation of district representatives in *Region F* and the number of meetings attended in the preceding calendar year. Documentation will consist of the table listing, all *Region F* meetings scheduled during the preceding 12 months.

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 the water conservation best management practices guide presented by the TWDB:

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

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.

Goal

6.0(a) Addressing National Resource Issues. (§36.1071(a)(5))

Management Objective

6.1(a) - The district will monitor any wells that are contaminated and test groundwater quality samples from selected newly drilled wells and existing wells. Attend GMA 7 Meetings regularly.

Performance Standards

6.1(a)1 - Test any new wells that show signs of contamination, generally the driller can tell if the well is contaminated and send in a sample. Most contamination in this area is high Chlorides. We will then contact the Railroad Commission to rectify the problem, the well may need to be plugged.. We will also provide lab results to the board of directors for every well sampled.

6.1(a)2 - By attending the GMA7 meetings, there is the opportunity to participate in discussion, planning and education concerning the interrelationship of groundwater with other natural resource issues.

https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/

Goal

7.0(a) Addressing the Desired Future Conditions of the Aquifers. (§36.1071(a)(8))

Management Objective

7.1(a) - To achieve the desired future condition adopted by GMA 7 for the Hickory Aquifer.

Performance Standards:

7.1(a) - The district has established a monitor well in the Hickory Aquifer and is monitoring the water level and rainfall on a real time basis. A comparison of the annual water level measurement and the cumulative water level trend to the adopted Desired Future Condition will be made annually. The water levels will be included in the district database.

MANAGEMENT GOALS DETERMINED NOT-APPLICABLE

Goal 8.0 Controlling and Preventing Subsidence. (§36.1071(a)(3))

Not appropriate or cost effective. In reference to the study: “*Identification of the Vulnerability of the Major and Minor Aquifers of Texas to subsidence with regard to groundwater pumping,*” The Lipan Aquifer is at low risk of future subsidence. Ref. Page 4-162 - 4-164, figure 4.105 and Table 4.41..

<http://www.twdb.texas.gov/groundwater/models/research/subsidence/subsidence.aso>

Goal 9.0 Addressing Recharge Enhancement. (§36.1071(a)(7))

Not appropriate or cost effective. Research project “Evaluation of Groundwater Availability, Recharge, and Monitoring System Design”⁴ completed for the District by LBG-Guyton Association 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. This is a report done for the district that is available by request.

Goal 10.0 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 11.0 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.

Goal 12.0 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.

⁵ Evaluation of Groundwater Availability, Recharge, and Monitoring System Design, LBG-Guyton Associates, Prepared for the Lipan-Kickapoo Water Conservation District, January 12, 2005.