KIMBLE COUNTY GROUNDWATER CONSERVATION DISTRICT

MANAGEMENT PLAN

2009-2019

District Mission

The mission of the Kimble County Groundwater Conservation District is to develop, promote and implement water conservation and management strategies to conserve, preserve, and protect the groundwater supplies of the District, to protect and enhance recharge, prevent waste and pollution, and to effect efficient use of groundwater.. The District seeks to protect the owners of water rights within the District from impairment of their groundwater quality and quantity, pursuant to the powers and duties granted under Chapter 36, Subchapter D of the Texas Water Code.

Time Period for this Plan

This plan becomes effective upon adoption by the Board of Directors and approval by the Texas Water Development Board. The plan remains in effect for ten years after the date of adoption by the Board of Directors and approval by the TWDB, or until such time as a revised or amended plan is approved. Per Texas Water Code 36.1072(e), the district must review and readopt the plan with or without revisions at least once every five years and resubmit the plan to the TWDB for an administrative completeness review.

Statement of Guiding Principles

The District recognizes that its groundwater resources are of utmost importance to the economy and environment, first to the citizens of Kimble County and then to the region. The District is created for the purpose of conserving, preserving and protecting groundwater supply quantity and quality in the District by:

- Acquiring, understanding and beneficially employing scientific data about the District's aquifers and their hydrogeologic qualities and identifying the extent and location of water supply within the District, for the purpose of developing sound management procedures;
- Preventing depletion of the aquifers underlying the District;
- Protecting the private property rights of landowners in groundwater by ensuring that such landowners shall continue to have the opportunity to use the groundwater underlying

their land;
- Promulgating rules for permitting and regulation of spacing, production and transportation of groundwater resources in the District to protect the quantity and quality of the resource;
- Educating the public and regulating for conservation and beneficial use of the water;
- Educating the public and regulating to prevent pollution of groundwater resources;
- Cooperating and coordinating with other groundwater conservation districts with which the District shares aquifer resources.

GENERAL DESCRIPTION OF THE DISTRICT

History

The enabling legislation creating the District, Senate Bill 2, was passed during the 77th Regular Legislative Session (2001). The confirmation election was held on May 4, 2002 with the majority of the votes cast in favor of confirming the creation of the District. On the same ballot, the proposition authorizing the District to levy taxes and setting the maximum tax rate at twenty cents ($.20) per $100 ad valorem value was passed.

The District is governed by a five member locally elected Board of Directors. The directors serve staggered four year terms, with the three directors elected in May of even numbered years and the other two directors elected to four year terms two years later. The initial directors' terms were chosen by drawing lots in accordance with the provisions of the District's enabling legislation enacted in 2001. With elections of directors taking place every two years, 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, Extent, and Topography

The Kimble County Groundwater Conservation District comprises 97.45% of the Kimble County area, which is not included within the boundaries of the Hickory Underground Water Conservation District No. 1, and covers an area of approximately 766,864 acres (1198 square miles) in the west-central part of Texas. Kimble County ranges in elevation from approximately 1783 to 2372 feet above mean sea level. Total population in 2000 was 4356 including the county seat, the City of Junction (population 2771).

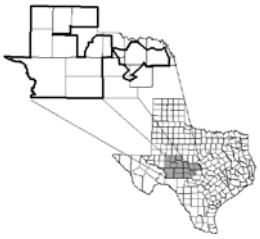
Drainage

The District lies within the Colorado River Basin and is bisected by the Llano River which arises, on the North Llano River, in Sutton County and, on the South Llano River, in Edwards County. The North and South Llano join within the District to become the Llano River at the city of Junction. Within the District there are numerous creeks which are tributaries of the Llano. Drainage of the river is in a generally eastward direction.

REGIONAL COOPERATION AND COORDINATION

West Texas Regional Groundwater Alliance

As a groundwater conservation district within the boundaries of the Region F Regional Water Planning Group, the District will become a cooperating member of the West Texas Regional Groundwater Alliance. In 1988, four groundwater conservation districts; Coke County UWCD, Glasscock County UWCD, Irion County WCD, and Sterling County UWCD signed an original Cooperative Agreement. In the fall of 1996, the original Cooperative Agreement was redrafted and the West Texas Regional Groundwater Alliance was created.



The regional alliance presently has a membership of eighteen locally created and locally funded groundwater conservation districts that encompass almost 9.34 million acres or 14,594 square miles of West Texas. This West Texas region is very diverse in aquifer characteristics, aquifer yields, types of agricultural production, water quality and other factors which make it necessary for each member district to develops its own unique management programs to best serve its constituents. At the same time, however, the member districts share data and technical information, co-ordinate management strategies, develop certain uniform procedures and forms, and conduct policy discussions.

The current member districts are:

Coke County UWCD	Crockett County GCD
Glasscock GCD	Hickory UWCD # 1
Hill Country UWCD	Irion County WCD
Jeff Davis County UWCD	Kimble County GCD
Lipan-Kickapoo WCD	Lone Wolf GCD
Menard County UWD	Middle Pecos GCD
Permian Basin UWCD	Plateau UWC & SD
Santa Rita UWCD	Sterling County UWCD
Sutton County UWCD	Wes-Tex GCD

GROUNDWATER RESOURCES

Edwards-Trinity (Plateau) Aquifer

The Edwards-Trinity (Plateau) aquifer is made up of early Cretaceous age Trinity Group formations and overlying limestones and dolomites of the Comanche Peak, Edwards, and the Georgetown formations. It ranges in thickness from 0 to 750 feet in the District, with the largest area being from 100 to 500 feet thick. Springs issuing from the aquifer form the headwaters for

the Llano River, which flows eastward, and for numerous creeks which are tributary to it.

The Edwards-Trinity (Plateau) is the principle aquifer in the District and underlies more than 797,000 acres of Kimble County. According to the Texas Water Development Board, total groundwater supply in the District in 2010 will be 23,965 acre-feet, almost all of which is in the Edwards-Trinity aquifer.[1]

The saturated thickness of the formation is from 100–300 feet throughout most of county. Water levels have generally remained constant or have fluctuated only with seasonal use. The formation is very fractured, with the water supply lying in joints and fractures of the limestone. The limestone is porous, and recharge to the aquifer is rapid because of the formation of horizontal and vertical dissolution channels in the limestone.

Water quality is good, though generally very hard, with 97.9% of the water supply in the District from this formation having Total Dissolved Solids (TDS) concentrations below 1000 mg/l.[2]

The Edwards Limestone and the Trinity Group crop out over the majority of the area in the District with exception of the alluvial areas along the Llano River and its tributaries and a very small area in the northeastern corner of the county. Underlying the Edwards-Trinity (Plateau) aquifer in the eastern half of the county is a down-dip portion of the Hickory aquifer, which does not have a significant amount of production within the district, and a down-dip portion of the Ellenburger-San Saba aquifer which has a small amount of production within the District.

Ellenburger-San Saba Aquifer

The Ellenburger-San Saba Aquifer underlies 4,000 square miles in parts of 15 counties in the Llano Uplift area of Central Texas. Discontinuous outcrops of the aquifer generally encircle older rocks in the core of the Uplift. The remaining down-dip portion contains fresh to slightly saline water to depths of approximately 3,000 feet below land and surface. Water produced from the aquifer has a range in dissolved solids between 200 and 3,000 mg/l, but usually less than 1,000 mg/l. The quality of water deteriorates rapidly away from the outcrop areas. Approximately, 20 miles or more down-dip from the outcrop, water is typically unsuitable for most uses.[3]

MANAGED AVAILABLE GROUNDWATER IN THE DISTRICT

[1] See Table 1, page 5

[2] Table 3-2, Edwards Trinity (Plateau) Aquifer, Water for Texas - 2002, TWDB 2002

[3] Ellenburger-San Saba Aquifer information obtained from TWDB website: http://www.twdb.state.tx.us/publications/reports/GroundWaterReports/GWReports/Brackish%20GW%20Manual/26-Ellenburger-SanSaba.pdf Report by LBG-Guyton Associates

The District is actively participating in joint planning with 20 other groundwater conservation districts in Groundwater Management Area 7 pursuant to Section 36.108 of the Texas Water Code. However, desired future conditions for District aquifers have not yet been adopted and are not due for submission to the Texas Water Development Board until 2010.

Once desired future conditions for the Edwards-Trinity and Ellenburger-San Saba aquifers have been adopted by GMA 7, an estimate of the Managed Available Groundwater will then be determined by the Texas Water Development Board. At that time the District may choose to amend its management plan.

Methodology for Calculating District Projected Groundwater and Surface Water Supplies, Projected Total Water Demands, and Historical Groundwater Usage

Since 2.55% of the area of Kimble County lies outside the District boundaries in the northeast corner of the county, 97.45% of the projected county total water demand, projected groundwater supply and the historical groundwater usage for the irrigation and livestock water user groups is allocated to the District.

100% of the projected county surface water supply for the irrigation and livestock water user groups in the county is allocated to the District, as only a little over one mile of the Llano river lies outside District boundaries in a sparsely populated area of northeast Kimble County. No irrigation from surface water takes place in that portion of the county within the jurisdiction of the Hickory Underground Water Conservation District No. 1

All Kimble County municipalities, communities with less than 500 people ("County-Other"), manufacturing and mining are located within District boundaries, therefore 100.00% of total county groundwater and surface water supply and demand for these entities is allocated to the District.

Fractional acre-feet are rounded up to a full acre-foot.

TABLE 1.

TOTAL AVAILABLE GROUNDWATER SUPPLY IN THE DISTRICT[4]
(in acre-feet)

AQUIFER	2000	2010-2060 (annual supply)
Edwards-Trinity-Plateau	26,052	23,354
Ellenburger-San Saba	210	210
TOTAL	**26,262**	**23,564**

[4] TWDB 2007 State Water Plan, Volume 3, Regional Water Planning Group Database

TABLE 2.

HISTORICAL WATER USE WITHIN THE DISTRICT[5]
(in acre-feet)

Year	Source	Muni-cipal	Manu facture	Steam Electric	Irriga-tion	Mining	Live-stock	TOTAL
2000	GW	189	2	0	47	91	367	696
	SW	780	580	0	589	0	94	2043
	Total	**969**	**582**	**0**	**636**	**91**	**461**	**2739**
2001	GW	209	0	0	50	91	355	705
	SW	761	4	0	587	0	90	1442
	Total	**970**	**4**	**0**	**637**	**91**	**445**	**2147**
2002	GW	204	0	0	50	91	322	667
	SW	741	13	0	587	0	82	1423
	Total	**945**	**13**	**0**	**637**	**91**	**404**	**2090**
2003	GW	190	0	0	51	91	285	617
	SW	692	13	0	2619	0	73	3397
	Total	**882**	**13**	**0**	**2670**	**91**	**358**	**4014**
2004	GW	165	0	0	86	91	294	636
	SW	602	13	0	2205	0	75	2895
	Total	**767**	**13**	**0**	**2291**	**91**	**369**	**3531**

Total combined annual surface and groundwater use in Kimble County has declined from 7529 acre-feet in 1974 to 3541 acre-feet in 2004.

TABLE 3.

[5]Source: Historical Water Usage Summary, Texas Water Development Board Water Use Survey database website, 5-14-08

Estimates of Recharge from Precipitation, Discharges to Surface Water Bodies, and Flows Into, Out of, and Between Edwards and Trinity Groups in the Edwards-Trinity Aquifer within the District[6]

	AQUIFER OR CONFINING UNIT	Amount (acre-feet)
Estimated annual recharge to the District from precipitation	Edwards and associated limestones	24,731
	undifferentiated Trinity units	6,871
Estimated annual volume of water that discharges from the aquifer to springs and surface water bodies, including lakes, streams and rivers	Edwards and associated limestones	26,982
	undifferentiated Trinity units	30,913
Estimated annual volume of flow into the district within each aquifer	Edwards and associated limestones	17,229
	undifferentiated Trinity units	12,670
Estimated annual volume of flow out of the district within each aquifer	Edwards and associated limestones	6,893
	undifferentiated Trinity units	3,960
Estimated net annual volume of flow between each aquifer in the district	Edwards and Associated limestones flowing into undifferentiated Trinity units	8,828

Estimates of Recharge from Precipitation, Discharges to Surface Water Bodies, and Flows Into, Out of the Ellenburger-San Saba Aquifer within the District

[6] TWDB, GAM Run 08-74, December 9, 2008

These estimates will not be available until the Texas Water Development Board has developed a Groundwater Availability Model for the Ellenburger-San Saba aquifer.

TABLE 4.

PROJECTED GROUNDWATER SUPPLIES FOR WATER USER GROUPS[7]
(in acre-feet)

Water User Group	2010	2020	2030	2040	2050	2060
County Other	203	200	200	200	200	200
Irrigation	288	288	288	288	288	288
Livestock	564	564	564	564	564	564
Manufacturing	3	3	3	3	3	3
Mining	91	91	91	91	91	91
TOTAL	**1149**	**1146**	**1146**	**1146**	**1146**	**1146**

SURFACE WATER RESOURCES

There are 12,056 acre-feet of water rights permitted by the TCEQ in the Llano River and its tributaries in Kimble County, of which 1,000 acre-feet are permitted for municipal use, 2,466 for industrial, 100 for mining and the remaining 8,490 acre-feet are permitted for irrigation purposes.[8] However, the TWDB estimates that total surface water use in the county amounted to only 2895 acre-feet in 2004. [9]

TABLE 5.

PROJECTED SURFACE WATER SUPPLIES IN THE DISTRICT[10]
(in acre-feet)

Water User Group	Source	2000	2010	2020	2030	2040	2050	2060

7 TWDB 2007 State Water Plan, Volume 3, Regional Water Planning Database

8 Data from 1999 TNRCC water rights list

9 TWDB 2007 State Water Plan, Volume 3, Regional Water Planning Group Database

10 TWDB 2007 State Water Plan, Volume 3, Regional Water Planning Database

Junction	Llano River-Run-of- River	0	0	0	0	0	0	0
County-Other	Llano River-Run-of- River	0	0	0	0	0	0	0
Manufacturing	Llano River-Run-of- River	0	0	0	0	0	0	0
Mining	Llano River-Run-of- River	0	13	13	13	13	13	13
Irrigation	Llano River-Run-of- River	1,980	1,475	1,475	1,475	1,475	1,475	1,475
Livestock	Local Supply	98	89	89	89	89	89	89
Total Projected Surface Water Supplies		**2,078**	**1,577**	**1,577**	**1,577**	**1,577**	**1,577**	**1,577**

TABLE 6.

TOTAL PROJECTED WATER SUPPLIES IN THE DISTRICT 2000-2060[11]
(in acre-feet)

SOURCE	2010	2020	2030	2040	2050	2060
GW	1,149	1,146	1,146	1,146	1,146	1,146
SW	2,078	1,577	1,577	1,577	1,577	1,577
TOTAL	**3,227**	**2,723**	**2,723**	**2,723**	**2,723**	**2,723**

TABLE 7.

TOTAL PROJECTED DEMAND FOR WATER WITHIN THE DISTRICT 2010-2060[12]
(in acre-feet)

Water						

[11] Tables 4 and 5.

[12] TWDB 2007 State Water Plan, Volume 3 Regional Water Planning Database

User Group	2010	2020	2030	2040	2050	2060
Junction	936	935	926	917	910	910
County-Other	212	207	203	196	194	194
Manufac-turing	702	767	823	880	932	1002
Mining	71	67	65	63	61	60
Irrigation	960	924	890	855	820	786
Livestock	651	651	651	651	651	651
Total	**3,532**	**3,551**	**3,558**	**3,562**	**3,568**	**3,603**

TABLE 8.

2007 STATE WATER PLAN PROJECTED WATER NEEDS IN THE DISTRICT 2010-2060[13]
(in acre-feet)

Water User Group	2010	2020	2030	2040	2050	2060
Junction	-936	-935	-926	-917	-910	-910
County Other	-9	-7	-3	4	6	6
Manufac-turing	-699	-764	-820	-877	-929	-999
Mining	33	37	39	41	43	44
Irrigation	786	823	858	894	930	964
Livestock	0	0	0	0	0	0

[13] TWDB, 2007 State Water Plan, Volume 3, Regional Water Planning Database

Net Water Surplus/ Need	**-825**	**-846**	**-852**	**-855**	**-860**	**-895**
Total Projected Water Need	**-1,644**	**-1,706**	**-1,749**	**-1,790**	**-1,833**	**-1,903**

(Negative values = water need; positive values = water surplus)

WATER MANAGEMENT STRATEGIES

The following water Management strategies for Kimble County were included in the 2007 State Water Plan:

TABLE 9.

PROJECTED 2007 STATE WATER PLAN WATER MANAGEMENT STRATEGIES (in acre-feet)

Water User Group	Water Management Strategy	Source	2010	2020	2030	2040	2050	2060
Manufac-turing	Develop Edwards-Trinity supplies	Edwards-Trinity Plateau Aquifer	1,000	1,000	1,000	1,000	1,000	1,000
Manufac-turing	Subordination	Llano River	1,000	1,000	1,000	1,000	1,000	1,000
Junction	Subordination	Llano River	991	991	991	991	991	991
County-Other	Subordination	Llano River	9	9	9	9	9	9
Irrigation	Irrigation Conservation	Conservation	0	74	147	147	147	147
Total Projected WMS			**3,000**	**3,074**	**3,147**	**3,147**	**3,147**	**3,147**

The District will permit additional wells in the Edwards-Trinity Plateau aquifer as needed for manufacturing, as surplus supply is available.

The District will implement the irrigation conservation strategy through its Management Goal 1.0.

The remaining water management strategies are related to surface water rights subordination agreements and are outside the powers and jurisdiction of the District.

ANNUAL AMOUNT OF ADDITIONAL NATURAL OR ARTIFICIAL RECHARGE THAT COULD RESULT FROM IMPLEMENTATION OF A FEASIBLE METHOD FOR RECHARGE

Brush control

Historical accounts of Kimble County and historical photographs in the possession of the District make it apparent that during the period from 1850 through 1885, when Kimble County was experiencing the beginning of European settlement, the country was mostly open grassland with little brush and few trees, and there was considerably greater flow of water in the Llano River and its creeks and tributaries than occurs at present. Now there is extensive invasion of brush, particularly mesquite and juniper, over large areas of the district.

District personnel have observed that in the late Spring when brush and trees come out of dormancy creeks (including those from which there are no irrigation withdrawals at any time) and sections of the Llano River dry up and remain in that condition throughout the summer during droughts. In the Fall, when brush and trees become dormant, creeks begin to flow again, regardless of whether or not there has been rainfall.

A current study demonstrates that for the entire watershed of the North Concho river, which lies within the same region, average annual water yield level increases by 81%, or about 48,523 acre feet with removal of all growths of mesquite and juniper in areas with heavy and moderate brush coverage (leaving areas with light brush growth intact)[14]. The average annual water yield increase in subbasin 8 of the study, being the subbasin closest to Kimble County, is 89,889 gallons per acre, or 0.27 acre-foot/acre, annually.[15] Average annual rainfall for the Main Concho River basin averages 23.6 inches annually, compared with Kimble County's 23 inches. The study finds that the average annual evapo-transpiration for land in the Main Concho River basin

[14] "Main Concho River Watershed" in Brush Management/Water Yield Feasibility Studies of Eight Watersheds in Texas, TWRI Study 182, p. 3

[15] Ibid., p. 3

with heavy to moderate brush on it is 22.04 inches (93% of precipitation) while it is 20.89 inches (89% of precipitation) for the no-brush condition.[16]

The Edwards-Trinity aquifer outcrops at the surface of subbasin 8 of the Main Concho basin and over all of Kimble County. The authors of the study believe that the re-evaporation coefficient of such shallow aquifers is higher for brush than other types of cover than it is in deeper aquifers because brush is deeper rooted. They base their assumptions on a re-evaporation coefficient for brush-covered units of 0.4, while non-brush units were estimated at a coefficient of 0.1.[17]

Applying those coefficients to areas of Kimble County heavily infested with brush, and assuming removal of only half the brush from those areas, and that Kimble County would, overall, only increase yield by the same average as the entire North Concho basin, (as opposed to the higher yield found in subbasin 8) surface water yield could be increased by 40%, and re-evaporation from the aquifer sufficiently reduced to result in the equivalent of a 70% increase in total annual recharge.

NOTE ON PROJECTED DEMANDS FOR GROUNDWATER IN KIMBLE COUNTY

The Texas Water Development Board has based its combined surface and groundwater projections for Kimble County on the premise that population will increase in Kimble County from 4,446 to only 4,785 over the next 50 years.[18]

With no increase in over-all demand for water within the District anticipated by the TWDB, groundwater use is projected to remain at historical levels of about 1100 acre-feet/year.

However, the experience of the District in the last five years suggests that population numbers may be on the verge of a significant increase and the character of water use in the county may be changing to the extent that there will be substantial reason for concern about supplies. The District has observed that:

a) New subdivision plats continue to be filed.

b) According to the Kimble County Appraisal District, over 60% of the landowners in the District are now non-residents. These non-residents utilize their properties in the District for hunting, recreational and vacation home purposes, using water that is not taken into account by the TWDB, which bases some estimates for projected demand, especially "county-other" on resident population.

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[16] Ibid., p. 3

[17] Ibid. p. 2

[18] Table 2-2, Population Projections for Region F Counties, Water for Texas - 2002

b) Newcomers appear to be coming from areas where they are accustomed to higher levels of water use than the long-time residents. The District has experienced a significant increase in numbers of inquiries about irrigation wells from new county residents for properties that have not previously had irrigation.

c) New residents have impounded riparian waters for domestic and livestock use, pursuant to the 200 acre-foot statutory exemption, on creeks and streams where water was formerly withdrawn for those purposes on a daily-need basis, but not impounded.

d) Even though studies indicate that Kimble County has adequate water supplies, in the most recent several years of below-average rainfall the District has received a number of reports of wells going dry. There is increased drilling in the county, but driller's logs submitted to the District have indicated as many dry holes as successful wells.

It is apparent, then, that there is need for management of the groundwater resource, and, above all, for better information on the characteristics, recoverable supplies, and recharge of the aquifers.

MANAGEMENT OF GROUNDWATER SUPPLIES

A primary function of the District is to obtain data about aquifer supplies and conditions in order to develop more effective management of the resource. The District has established monitor wells to gather baseline data in order to monitor changing storage conditions of groundwater supplies within the District. The District will obtain data from the monitor wells on a regular basis, make reports thereon to the Board of Directors, and maintain cumulative records of the water levels in the wells.

The District has adopted rules to regulate groundwater withdrawal by means of spacing regulation and production limits. If regular monitoring indicates that aquifer levels are declining, the District will amend those rules, within the limitations imposed by Chapter 36 of the Texas Water Code, to protect the aquifer resources.

The District may deny a well permit or limit a high production permit in accordance with the provisions of the District Rules and this Management Plan. The relevant factors to be considered in denying or limiting a permit shall be:

1) the purpose of the District Rules, including but not limited to preserving and protecting the quality and quantity of the aquifer resources, and protecting existing uses

2) the equitable distribution of resources

3) The economic hardship resulting from denial or limitation of a permit.

The District will enforce the terms and conditions of permits and the Rules of the District.

The District recognizes the importance of public education to encourage efficient use, implement conservation practices, prevent waste, and preserve the integrity of groundwater, and will seek opportunities to educate the public on water conservation issues and other matters relevant to the protection of the aquifer resources through public meetings, newspaper articles, and other means which may become available.

ACTIONS, PROCEDURES, PERFORMANCE AND AVOIDANCE FOR PLAN IMPLEMENTATION

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

The District will adopt rules for the management of groundwater resources through permitting of wells and production of groundwater, pursuant to Chapter 36 of the Texas Water Code and the provisions of this Plan, and will amend those rules as necessary. All rules will be adhered to and enforced. The promulgation and enforcement of the rules will be based on the best scientific and technical evidence available.

For good cause shown the District, in its discretion, and after notice and hearing, may grant an exception to the District Rules. In doing so, the Board shall consider the potential for adverse effect on adjacent landowners. The exercise of said discretion by the Board shall not be construed as limiting the power of the Board.

The District will seek cooperation in the implementation of this plan and the management of groundwater supplies within the District. The District will co-operate and co-ordinate with other water districts managing water resources from the same aquifers, and with other local water management entities.

Coordination With Surface Water Entities

The Board of Directors and Manager of the District will meet at least once yearly with the Kimble County Water Control and Improvement District to discuss conjunctive use issues and joint water management goals.

Methodology for Tracking Progress

The District will hold regular Board Meetings for the purpose of conducting District business. Each month, the Manager's Report will reflect the number of meetings attended; number of water levels monitored; articles published concerning water issues; number of water analysis samples collected and analyzed; resulting action regarding potential contamination, or remediation of actual contamination; reports on any school or civic group programs; meetings with the surface water management district; and other matters of district importance.

During the last monthly Board of Directors' meeting each fiscal year, beginning with October 1, 2001, The District manager will prepare and present an annual report to the Board of Directors on District performance in regards to achieving management goals and objectives. The annual report will be maintained on file at the District Office.

Goals, Management Objectives and Performance Standards

Goal 1.0 - Providing the Most Efficient Use of Groundwater

1.1. Management Objective

At least once each year the District will provide, in a public meeting or forum, available information on water conservation practices for the efficient use of water. These will include but are not limited to publications from the Texas Water Development Board, Texas Commission on Environmental Quality, Texas Agricultural Extension Service, and other sources.

1.1 Performance Standard

Report to the Board of Directors on distribution of informational materials on water conservation practices in a public meeting or forum at least once each year.

1.2 Management Objective

At least once each year the District will publish in a newspaper with local circulation an article on efficient water use and availability of information materials at the District office.

1.2 Performance Standard

One article published each year.

1.3. Management Objective

Each year the District will present a program in a local school, to a class or other school group, on water conservation practices, water quality analysis, or other water issues.

1.3. Performance Standard

Report to the Board of Directors on one program on water conservation practices, water quality analysis or other water issues presented each year in a local school.

Goal 2.0 - Controlling and Preventing the Waste of Groundwater

2.1. Management Objective

To collect data for the purpose of managing for prevention of waste of groundwater, the District will, over the next five years, develop a network of 16 monitor wells, distributed as evenly as practicable around the county.

2.1 Performance Standard

The addition of two monitor wells each year to the district well-monitoring network until a total of 16 has been reached

2.2 Management Objective

To measure, record and accumulate a historic record of static water levels in monitor wells on a regular periodic basis.

2.2 Performance Standard

The static water levels in two monitor wells will be measured and recorded every quarter until the district has four monitor wells in its network. Thereafter four monitor wells will be measured and recorded every quarter.

2.3 Management Objective

At least twice each year the District will publish the availability of water analysis services in the local newspaper.

2.3 Performance Standard

Two advertisements for water testing services published each year.

2.4 Management Objective

To monitor water quality in the district, the District will sample and conduct water quality tests on selected monitor wells at least once each year for possible contamination which would jeopardize the integrity of the groundwater supply.

2.4 Performance Standard

Four water quality analysis tests performed each year on selected monitor wells.

Goal 3.0 - Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater, and Which are Impacted by the Use of Groundwater

3.1. Management Objective

Although there is very little oil production in Kimble County the District will monitor one or more selected wells within areas of the District where there is oil production, for possible contamination problems which would jeopardize the integrity of the groundwater resource.

3.1 Performance Standard

Twice each year two well samples will be collected and analyzed for petroleum- related contamination in areas of the district where there is oil production.

Goal 4.0 - Addressing Conjunctive Surface Water Management Issues

4.1 Management Objective

Each year the District shall conduct a joint planning and/or policy meetings with the

City of Junction to discuss conjunctive use issues.

4.1 Performance Standard

One joint planning and/or policy meeting conducted jointly with the City of Junction each year.

4.2 Management Objective

The District will meet at least once yearly with the Kimble County Water Control and Improvement District to discuss conjunctive use issues and joint water management goals.

4.2 Performance Standard

One joint meeting with the Kimble County Water Control and Improvement District each year.

Goal 5.0 - Addressing Drought Conditions.

5.1 Management Objective

Each year the District will monitor the Palmer Drought Severity Index by downloading at least one PDSI map per month. If the index indicates that the District will experience severe drought conditions, the District will publish a notice or article in the local paper bringing attention to the severity of the drought and the need to practice water conservation.

5.1 Performance Standard

Annual report to Board of Directors listing the number of months each year that at least one PDSI map was downloaded, the number of times the Palmer Drought Severity Index indicated severe drought conditions, and the number of times a notice was published in the local newspaper.

Goal 6.0 - Conservation.

6.1 Management Objective

At least once each year the District will distribute water conservation literature in a public forum such as a district meeting, a livestock show, or a county function.

6.1 Performance Standard

Annual report to Board of Directors listing when and where water conservation information was distributed during the year.

Goal 7.0 - Addressing rainwater harvesting

7.1 Management Objective

Include literature on rainwater harvesting in one public education presentation

annually

7.1 Performance Standards

Annual report to Board including the number of presentations of rainwater harvesting literature at educational presentation

Goal 8.0 - Addressing brush control

8.1 Management Objective

Include literature on brush control in one public education presentation annually

8.1 Performance Standards

Annual report to Board including the number of presentations of brush control literature at educational presentation

Goals Not Applicable to the Kimble County Groundwater Conservation District.

Goal 1.0 - Controlling and preventing subsidence.

There is no history of subsidence of aquifer formations within the district upon water level depletion and available scientific information is that the formations are of sufficient rigidity that subsidence will not occur.

Goal 2.0 – Addressing Recharge Enhancement

Although the Board of Directors has discussed the benefits of spreader dams for recharge enhancement within the District, there are no longer state or federal programs available to assist agricultural landowners with funding to build them. The Board of Directors has concluded there is not sufficient funding available within the District to participate in a recharge enhancement program.

Goal 3.0 - Addressing Precipitation Enhancement

The District Manager has reported to the Board of Directors on Precipitation Enhancement programs conducted by neighboring groundwater conservation districts, but the Board of Directors has determined that there is not sufficient funding available to the district to participate in such a program.

Goal 4.0 - Addressing in a Quantitative Manner the Desired Future Conditions of Groundwater Resources in the District

No Desired Future Conditions have been adopted in Groundwater Management Area 7 and none are due for submission to the Texas Water Development Board until 2010. Therefore, this goal is not applicable to the District at this time.

Definitions and Concepts

"Board" - the Board of Directors of the Kimble County Groundwater Conservation District.

"District" - the Kimble County Groundwater Conservation District.

"Effective recharge" - the amount of water that enters the aquifer and is available for development

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

"Integrity" - means the preservation of groundwater quality.

"Ownership" - pursuant to TWC Chapter 36, §36.002, means the recognition of the rights of the owners of the land pertaining to groundwater.

"Recharge" - the addition of water to an aquifer.

"Surface Water Entity" - TWC Chapter 15 Entities with authority to store, take divert, or supply surface water for use within the boundaries of a district.

"TCEQ" - Texas Commission on Environmental Quality.

"TWDB" - Texas Water Development Board.

"Waste" - pursuant to TWC Chapter 36, §36.001(8), 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) escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;

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

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

(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 Section 11.205.

“Well” - means an artificial excavation that is dug or drilled for the purpose of producing groundwater.