

**THE HIGH PLAINS UNDERGROUND  
WATER CONSERVATION  
DISTRICT NO. 1**

**MANAGEMENT PLAN  
1998-2008**

**AUGUST 11, 1998**

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# INTRODUCTION

## District Creation

The original boundaries of the High Plains Underground Water Conservation District No. 1 were delineated in March 1951 by the Texas State Board of Water Engineers. Then, on September 19, 1951, the people in 13 Southern High Plains Counties voted to create the District in accordance with the Underground Water Conservation Districts Act passed by the Texas Legislature in 1949 (currently codified as Chapters 35 and 36 of the Water Code, Vernon's Texas Codes Annotated).

Today, after several annexation elections, the District consists of all of Bailey, Cochran, Hale, Lubbock, Lynn, and Parmer Counties, as well as part of Armstrong, Castro, Crosby, Deaf Smith, Floyd, Hockley, Lamb, Potter, and Randall Counties. An area of 10,728 square miles or 6,869,910 acres is served by the Water District ( Figure 1).

## Board Of Directors

The District is governed by a five-member Board of Directors. Each of the 15 counties within the District has a five-member County Committee composed of individuals elected for four-year terms.

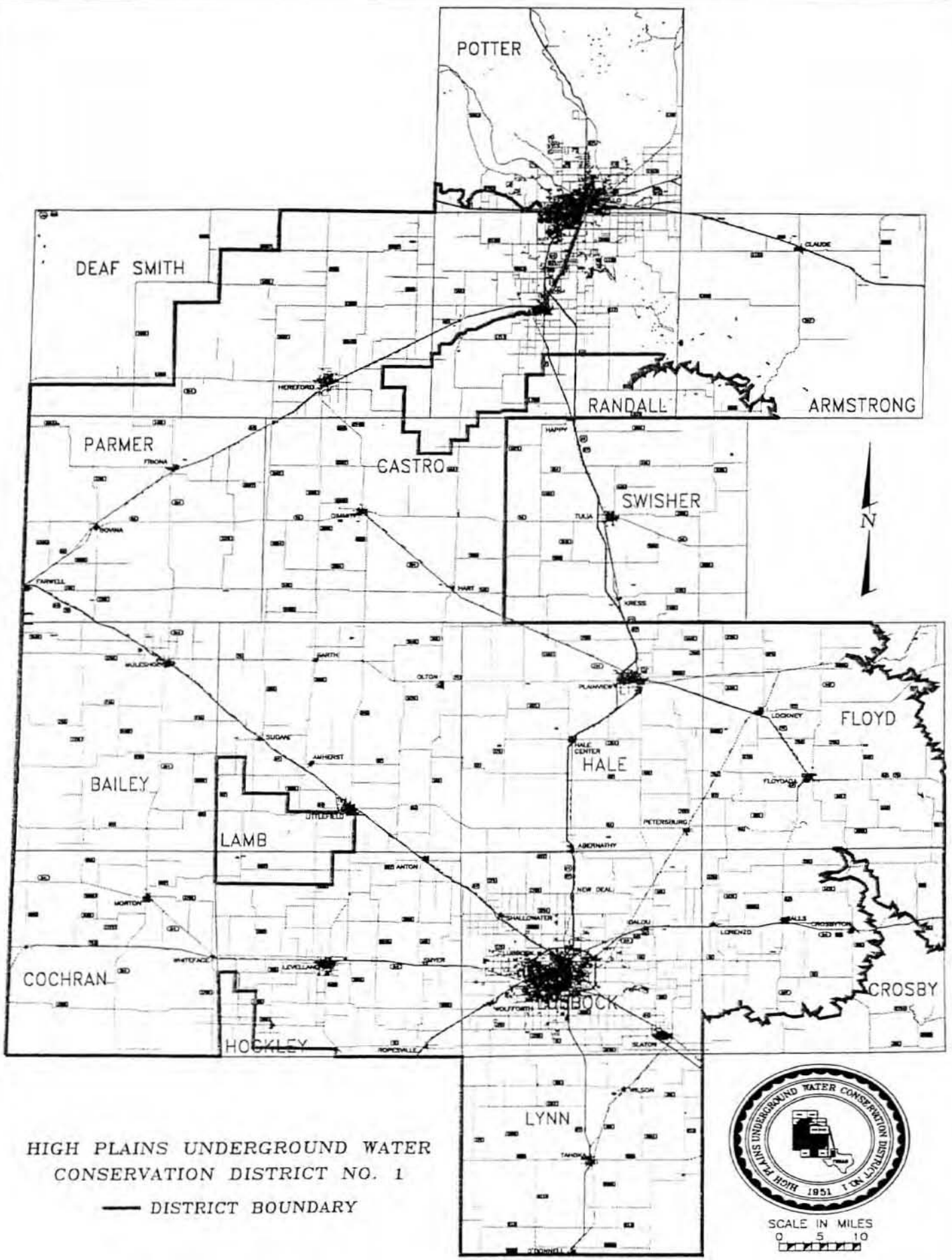
Table 1

Board of Directors of the High Plains Underground Water Conservation District No. 1.

<u>Office</u>	<u>Name</u>	<u>Term Ends</u>
President	James P. Mitchell	January 2002
Vice-President	Dale Gober	January 2000
Secretary-Treasurer	Bruce B. Rigler	January 2002
Member	Robert J. Meyer	January 2000
Member	Jim Copeland	January 2002

## District's Mission

The purpose of this district, as required in the Texas Water Code, Chapter 36, is to provide for conserving, preserving, protecting, and recharging the underground water and prevention of waste of the underground water. During its 47-year history, the High Plains Underground Water Conservation District No. 1 has developed a management philosophy, from which management strategies have been developed. The Board has made and enforced rules with the advice and consent of the 75 County Committee Members to best accomplish the purpose of the District.



HIGH PLAINS UNDERGROUND WATER  
CONSERVATION DISTRICT NO. 1

— DISTRICT BOUNDARY



SCALE IN MILES  
0 5 10

## Planning Horizon

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This plan is a revision of the last management plan adopted by the Board in June 1998. This plan becomes effective August 11, 1998, upon adoption by the Board of Directors of the District and will remain in effect until a revised plan is approved or until August 31, 2008, whichever is earlier.

## Policy Guidelines

The Board of Directors from the District's inception have upheld the philosophy that ownership of the ground water is a private property right. The Directors continue to support this right for the landowners.

The philosophy of ground water management in this District was established early and formally adopted by the Board: *The District is dedicated to the principle that conservation is best accomplished through public education.*

The Board of Directors are elected by the people within their Directors precincts, under the general Election laws of Texas. The rules promulgated to date by the Board were carefully thought out, were the result of specific needs, and were adopted only after considerable public input. These rules provide a fair and equal opportunity for all water users to use water from the aquifer for beneficial purposes. The Board has established the policies of the District that are carried out by the staff.

As conditions change through time, the Board reevaluates its policies. This management plan document is a dynamic management plan meant to be reviewed, evaluated, revised as needed, and re-adopted at least every five years.

Management objectives, goals, and performance standards set forth in this document are considered by the Board to be reasonable and prudent. Whenever the Board determines that a change is needed, they will act accordingly after careful consideration of all the facts and after receiving public input.

## Ground Water Resources

### Ogallala Aquifer

The principal source of ground water in the District is stored in the Ogallala Formation. The formation consists of clay, silt, fine to coarse-grained sand, gravel, and caliche. The layering of these materials is very erratic and varies within short distances, both vertically and horizontally.

Most of the Ogallala is loosely arranged (unconsolidated); however, near the top and locally within the formation some of the sediments have been cemented by calcium carbonate to form beds of caliche. The caliche occurs in single or multiple layers in the uppermost part of the formation. Because caliche is resistant to erosion, it forms the “caprock” of the escarpment.

Water in the Ogallala Formation is stored in the pore spaces (between the grains) of the clay, silt, sand, and gravel, which make up the geological deposit (Figure 2).

The water in the formation is not confined under layers of clay or rock; therefore, it is considered to be under water-table conditions, meaning that the water level in a well drilled into the saturated portion of the formation does not rise above the static water level of the aquifer in the general area around the well.

The water moves very slowly, generally from the northwest to the southeast, at a rate of about 150 feet per year, or about one mile in 35 years on a gradient of 10 feet per mile. The coefficient of storage of the formation is about 15 percent by volume of saturated thickness. This means that 100 feet of saturated thickness would contain 15 feet of water.

### **Cretaceous Aquifer**

The Edwards-Trinity High Plains Aquifer, commonly referred to as the Cretaceous Aquifer, underlies the Ogallala Aquifer throughout a portion of the District (Figure 3). In some areas of the District, the Cretaceous and Ogallala Aquifers are hydrologically connected. Ground water in the Cretaceous is generally fresh to slightly saline. Water quality deteriorates where Cretaceous formations are overlain by saline lakes.

Recharge to the Cretaceous generally occurs directly from the bounding Ogallala formation. Some upward movement of ground water into the Cretaceous from the underlying Triassic Dockum formation also may occur (Ashworth and Hopkins, 1995).

### **Dockum Aquifer**

The Dockum Aquifer underlies the Cretaceous and Ogallala formations throughout the District (Figure 4). The primary water-bearing zone in the Dockum group, commonly called the “Santa Rosa”, consists of up to 700 feet of sand and conglomerate interbedded with layers of silt and shale (Ashworth and Hopkins, 1995). Aquifer permeability is typically low, and well yields generally do not exceed 300 gallons per minute throughout most of the southern part of the District. In the northern part of the District, the well yields are greater.

Water quality in the Dockum is the limiting factor when considering its use within the District (Ashworth and Hopkins, 1995). In the northern part of the District, the water quality is better than in the southern end of the District.



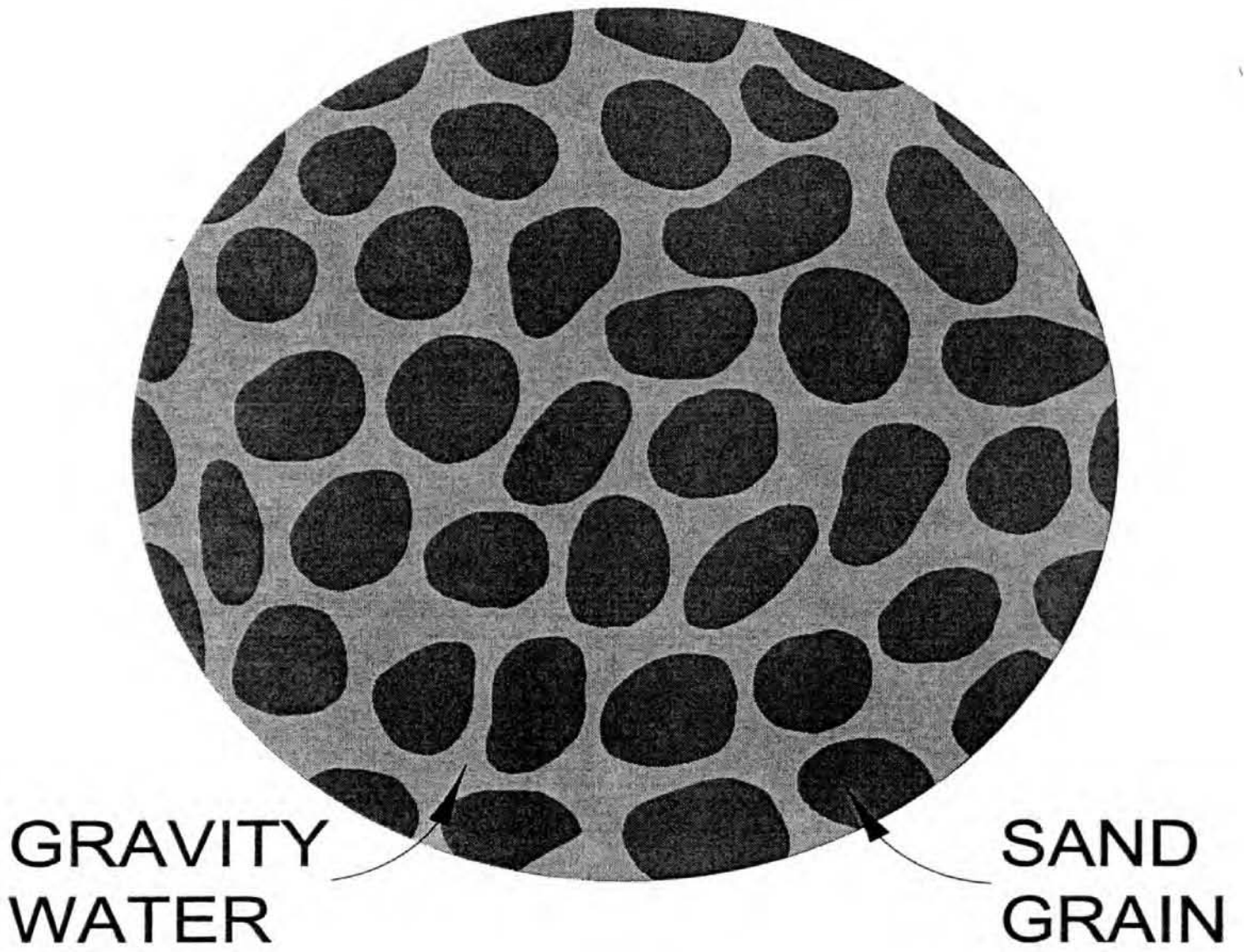


FIGURE 2  
PORE SPACES OF GEOLOGICAL FORMATION OF OGALLALA AQUIFER

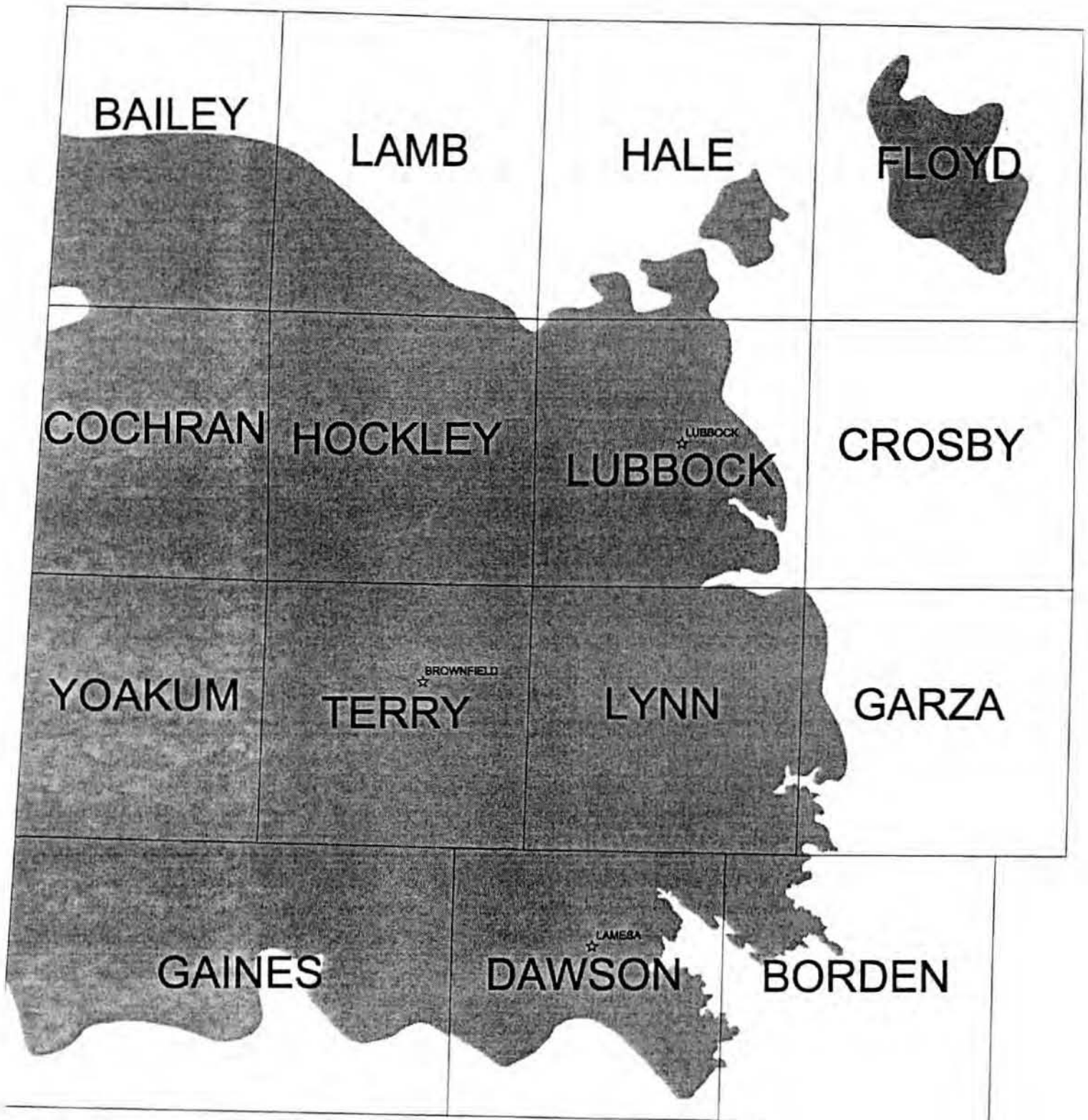
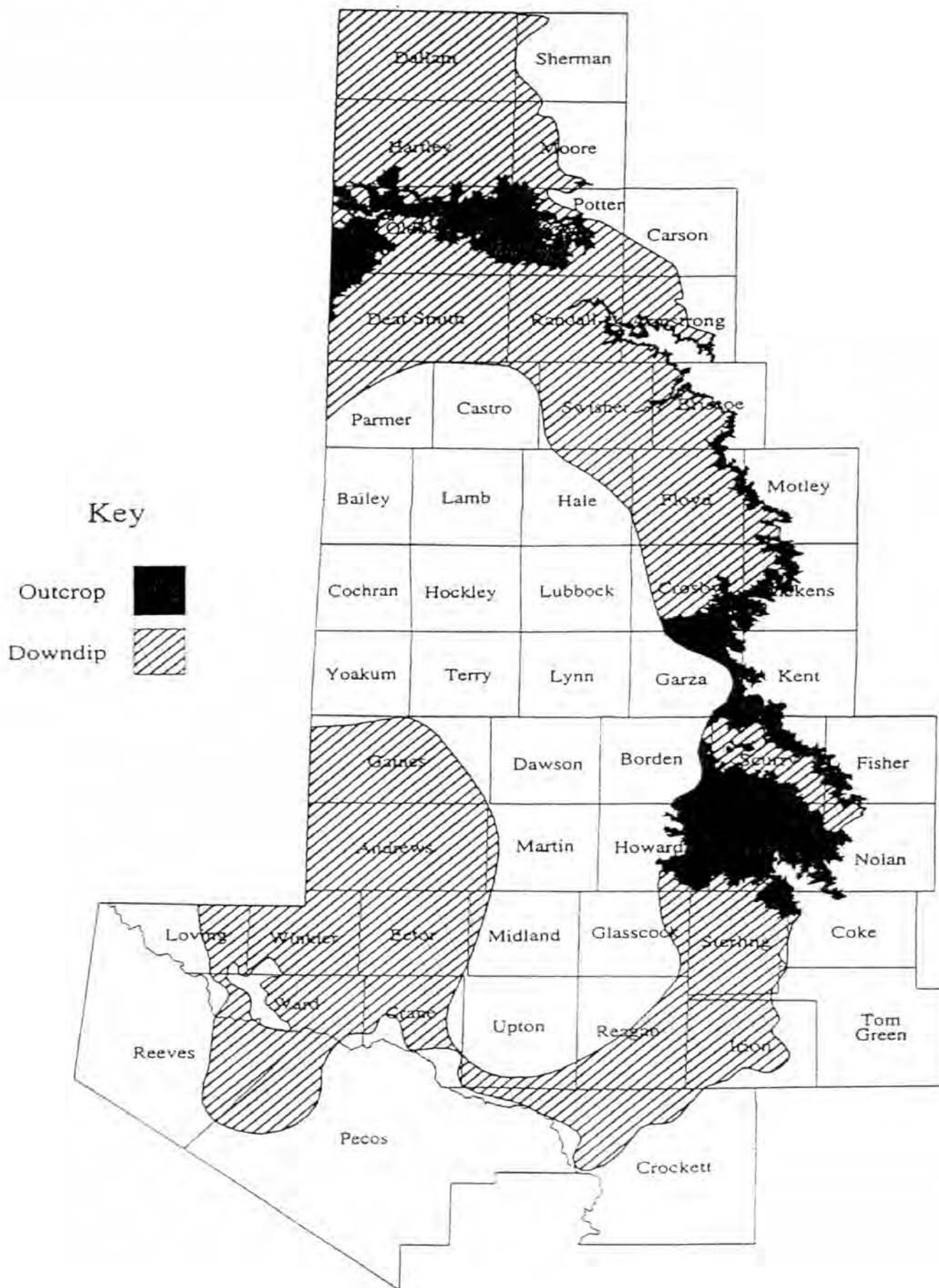


FIGURE 3  
AERIAL EXTENT OF THE CRETACEOUS AQUIFER IN TEXAS

Figure 4: Aerial extent of the Dockum Aquifer in Texas



## Surface Water Resources

The only fresh surface water occurring within the District is in playa lakes and a few little creeks where water runs only when rainfall events are of high intensity or of long duration. The playas play an important role in aquifer recharge and support some wildlife when rainfall events are significant enough to cause runoff to accumulate in these naturally occurring depressions. Some playas have been modified and used to collect tailwater and rainfall runoff to supplement irrigation. Much of the natural recharge to the aquifer is thought to be from rainfall runoff when collected in the playas. The infiltration rate is much higher in a playa when it is dry and the soils in the bottom of the basin have developed deep cracks.

Perhaps the most significant surface water resources of benefit to the District are the four surface water reservoirs located outside the District boundaries. They are Lake Meredith, located in Hutchinson County north of the District, which delivers water to the cities of Amarillo, Plainview, Lubbock, Levelland, Slaton, Tahoka and O'Donnell inside the District, plus four more cities outside the District. Lake Mackenzie, located in Briscoe County, delivers water to Lockney and Floydada inside the District, plus Silverton and Tulia outside the District. White River Lake, located west of Spur, delivers water to Crosbyton and Ralls inside the District, plus Post and Spur located outside the District. Water from Lake Alan Henry is intended to be used to provide water to Lubbock in 25 to 35 years. In the meantime, it is being used as a recreational area.

The current and projected surface water supply estimates were provided to the District by the TWDB water plan data, page 25-27. This information is summarized Table 2. Water supply amounts are in units of acre-feet per year by decade.

Table 2  
Surface Water Supply Estimates for the Reservoirs Supplying Surface Water within the District

Reservoir	2000	2010	2020	2030	2040	2050
Lake Meredith	74,350	71,400	68,450	65,500	62,550	54,000
Mackenzie	5,200	5,200	5,200	5,200	5,200	5,200
White River	4,000	4,000	4,000	4,000	4,000	4,000
Totals	83,550	80,600	77,650	74,700	71,750	68,200

The reservoirs are projected to be able to meet the demand for surface water during the planning period.

## Total Useable Amount of Ground Water

The existing total useable amount of recoverable ground water in the District is estimated in Texas Water Development Board Report 341, *The High Plains Aquifer System of Texas, 1980 to 1990 Overview and Projections*, September 1993. These estimates are shown in Table 3 in millions of acre-feet by county by decade period from 1990 to the year 2040.

## Projected Ground Water Supply and Demand

Table 3 is the projected volume of water in storage by decade.

Table 3 - Volume of Water in Storage in Millions of Acre-Feet by Decade Period \*

County	1990	2000	2010	2020	2030	2040
Armstrong <sup>1</sup>	0.11	0.10	0.10	0.09	0.09	0.08
Bailey	6.28	5.50	4.87	4.32	3.87	3.51
Castro <sup>2</sup>	11.74	9.76	8.10	6.61	5.32	4.21
Cochran	4.06	3.37	2.87	2.47	2.15	1.90
Crosby <sup>2</sup>	6.62	5.86	5.15	4.50	3.94	3.47
Deaf Smith <sup>2</sup>	10.66	9.01	7.74	6.72	5.92	5.28
Floyd <sup>2</sup>	9.37	8.23	7.18	6.21	5.35	4.57
Hale	12.32	9.99	7.97	6.08	4.43	3.17
Hockley <sup>2</sup>	4.40	3.68	3.16	2.74	2.38	2.07
Lamb <sup>2</sup>	10.09	8.30	6.78	5.42	4.26	3.29
Lubbock	5.11	3.97	3.14	2.47	1.96	1.58
Lynn	3.62	3.24	2.99	2.80	2.63	2.50
Parmer	9.64	7.98	6.67	5.55	4.62	3.88
Potter <sup>1</sup>	0.48	0.45	0.43	0.42	0.40	0.39
Randall <sup>1</sup>	3.95	3.49	3.08	2.74	2.45	2.22
<b>Totals</b>	<b>98.45</b>	<b>82.93</b>	<b>70.23</b>	<b>59.14</b>	<b>49.77</b>	<b>42.12</b>

<sup>1</sup> Portions of Armstrong, Potter, and Randall counties are included in TWDB's North Model.

<sup>2</sup> Volume of water is an approximate representation for the portions of counties within the Water District.

\*Data reported by Texas Water Development Board in 1990.

## Amounts of Ground Water Being Used Within the District on an Annual Basis

The Texas Water Development Board in its 1996 Water Plan data provided estimates of the amount of ground water that has been and will be used by decade period to the year 2050, as shown in Table 4.

Table 4 Amounts of Ground Water Used by County by Decade

County	1995	2000	2010	2020	2030	2040	2050
Armstrong	12,809	14,644	12,878	12,237	11,543	9,130	8,531
Bailey	211,045	219,092	197,564	120,137	68,458	52,656	47,702
Castro	443,623	343,270	320,385	266,669	161,140	60,429	39,596
Cochran	121,404	33,761	32,329	30,991	29,565	28,304	27,193
Crosby	135,523	102,176	98,083	92,093	83,346	67,839	52,376
Deaf Smith	290,321	282,345	233,041	159,606	97,926	67,298	37,932
Floyd	247,164	121,806	106,026	92,699	79,215	66,677	61,625
Hockley	178,346	96,397	88,397	82,331	75,100	71,000	68,656
Lamb	398,194	353,345	297,805	193,833	129,680	35,201	33,777
Lubbock	294,661	218,758	176,012	151,481	118,536	98,779	61,335
Lynn	64,228	35,150	34,964	32,892	31,189	29,661	28,219
Parmer	441,251	435,725	356,665	195,577	112,110	88,768	74,276
Potter	32,995	13,490	8,379	8,791	9,536	10,056	8,988
Randall	54,513	40,529	39,189	39,086	38,027	30,823	27,695
<b>Totals</b>	<b>2,926,077</b>	<b>2,310,488</b>	<b>2,001,717</b>	<b>1,478,423</b>	<b>1,045,371</b>	<b>716,621</b>	<b>577,901</b>

In 1995, the Water District updated Hydrologic Atlases for each county it serves. Each of the atlases contains a map illustrating the saturated thickness of the aquifer as of that date. The saturated thickness maps provide an indication of the quantity of water in storage. A review of these maps indicates that sufficient water is in storage to meet the estimated water demands listed in Table 4 for each county through 2050.

## The Annual Amount of Recharge to the Ground Water Resources Within the District and How Natural or Artificial Recharge May be Increased.

A recent paper compiled by Drs. Warren W. Wood, Ken A. Rainwater, and David B. Thompson titled "Quantifying Macropore Recharge: Examples from a Semi-Arid Area" reprinted from *Ground Water*, Volume 35, No. 6, November-December 1997, provides their best analysis of natural recharge to the Ogallala Aquifer in the Water District service area. The following is taken from the "Summary and Conclusions" of their paper:

“For the Southern High Plains of Texas and New Mexico, a significant amount of the total recharge is through macropores. Of the total regional annual average recharge of 11 mm/y, macropore recharge flux ranges between 60 and 80 percent (7 to 9 mm/y), interstitial recharge flux beneath the playa floors ranges between 15 and 35 percent (1.6 and 4.4 mm/y), and regional interstitial recharge is approximately 5 percent (0.5 mm/y). The values of stable isotopes of ground water composition that show little enrichment relative to precipitation are consistent with these figures.”

11 mm/y equals 0.4358 of an inch per year per surface acre.

The surface area of the High Plains Underground Water Conservation District is 6,869,910 acres. Natural recharge of 0.4358 of an inch per acre per year would equal a total of 2,993,906.7 acre inches or 249,492.22 acre-feet per year. Natural recharge can best be increased with an addition to the water supply. The District has begun a precipitation enhancement program which is expected to provide this opportunity. The amount of natural recharge increase should at a minimum be in direct proportion to the amount of increase in precipitation. In 1997, our calculations indicate that the amount of precipitation received was 8 percent above average for the Water District service area. An 8 percent increase of the estimated 249,492 acre-feet would be 19,959 acre-feet.

## **Management of Ground Water Resources**

The District has been in operation since 1951. The District maintains a qualified staff to assist the water users in protecting, preserving, and conserving the aquifer. The Board of Directors have in the past and continues today to base its decisions on the best data available to treat all the water users fairly and equally. The Board determines the programs and activities that the District shall undertake to provide the best possible service to the area. The Water District's rules are enforced to protect the quality of the ground water and to prevent waste of water.

A water level monitoring network was established to keep track of the changes in the water table. Data from these wells are used to maintain an inventory of the amount of water in storage in the aquifer. Permits are required prior to drilling a well that is under the District's jurisdiction. Other programs are in operation to help users to conserve the Ogallala Aquifer. All the District's programs are designed to conserve the resource while maintaining the economic viability of the area.

Utilizing the District Goals, Objectives and Standards, a written annual report will be provided to the Board of Directors on the status of implementing these programs.

## Drought Contingency Plan

The drought of 1998 reminds us of how dependent we are on precipitation and of the importance of irrigation application efficiency as it relates to crop yields. Precipitation is the primary water supply source for the area served by the High Plains Underground Water Conservation District.

Most of the precipitation occurs as rainfall. Approximately 30 percent of the average annual precipitation occurs in rainfall events ranging from a trace to a half inch, which provides limited benefit for crop production. About 60 percent occurs in events ranging from one half inch to 2 inches, with the remaining 10 percent occurring in larger events. Rainfall events which exceed one half inch that occur in the area are generally short duration, high intensity events which exceed the infiltration rates of the soil. Consequently, runoff occurs if the land is not prepared to hold the water in place until it has time to soak into the soil. This is especially important when large precipitation events occur in the area. Ground water is pumped from the Ogallala Aquifer to make up the difference between the crop water demand and the precipitation received prior to and during the growing season (May through September for summer crops and August through May for winter crops). Even though approximately 60 percent of the average annual precipitation generally occurs just prior to and during the summer growing season, on a year-to-year basis, it cannot be depended upon to occur timely and in amounts that will satisfy the needs of the crops growing in the area. Droughts occur and reoccur in the area as do cycles of above average precipitation.

The unpredictability of the amounts and timing of precipitation events make it impossible to determine how much ground water the irrigator will need to pump to meet his crop water demands on a year by year basis.

Each of the principal crops grown in the Water District require specific amounts of water measured in inches to grow the plant and produce a specific yield. For instance, five inches of water is required to grow the cotton plant. Then for every additional inch of water the cotton crop receives in a timely fashion, it will generally produce 50 pounds of lint cotton per acre. The same type of equations are available for all other types of crops grown in the service area of the High Plains Underground Water Conservation District.

The irrigator makes a large investment when he purchases the land; drills and equips the wells; installs irrigation distribution systems; purchases the necessary equipment to farm the land, fuel and labor for preparing the land to farm, fertilizers, herbicides, and seed; makes pre-plant irrigations, buys crop insurance; pays interest on borrowed money used for operating capital and living expenses, etc. Therefore, depending on the market price he expects to receive for the crop he is growing, he sets a minimum yield he must produce to break even, to make a 5 percent profit, and to make a 10 percent profit on his investment. If he sets a yield goal of 750 pounds of lint cotton per acre, the crop must have a total of 20 inches of water: five inches to produce the plant plus one inch per 50 pounds of lint or 15 inches for a total of 20 inches. Assuming he receives the average amount of precipitation of 18 inches and that 60



percent of this occurs just prior to and during the growing season (11.7 inches) and, further, that 60 percent of the amount he receives is effective precipitation (events of half inch or more), the net amount of water provided by precipitation his crop could have available to use during the growing season would be 7.02 inches. It is likely he would have cared for his land in such a manner that he would have stored in the soil at least 50 percent of the precipitation he received during the fall, winter, and early spring, providing an additional 3.6 inches of water. In theory, his crop would have benefit of 10.62 inches of precipitation, leaving 9.38 inches to be provided by irrigation.

Should the year yield only 75 percent of normal precipitation or a total of 13.5 inches, using the same formula, he would have 7.56 inches of effective precipitation and would need to provide 12.44 inches through irrigation to produce the 750 pounds of lint per acre yield goal.

Should the year yield only 50 percent of normal precipitation of 9 inches, again using the same formula, precipitation would provide only 5 inches of useable water, leaving 15 inches to be provided by irrigation to produce the 750 pounds of lint per acre yield goal.

Rain fed or dryland production totally dependent on precipitation would have 10.6 inches of effective precipitation as per the first example. Five inches to produce the plant and 5.6 inches to produce fruit provides the opportunity for yields of 280 pounds of cotton lint per acre during an average rainfall year.

Water lost to evaporation, penetration below the plant root zone, and irrigation tailwater during the irrigation application are extremely important components we address in our education programs.

The importance of irrigation water application efficiency can best be illustrated by reverting back to the previous example given for the amount of water needed to produce 750 pounds of lint cotton per acre yield. In an average precipitation year when the irrigator receives about 18 inches of precipitation of which 10.62 inches is effective, he would need to add 9.38 inches through irrigation to produce his yield goal.

The table below illustrates how much water would have to be pumped at different water application efficiency levels to provide his crop 9.38 inches of water.

<u>Amount of Water Needed</u>	<u>Applied at Application Efficiency %</u>	<u>Must Pump</u>
9.38 inches	50%	18.76 inches
9.38 inches	60%	15.64 inches
9.38 inches	70%	13.40 inches
9.38 inches	80%	11.73 inches
9.38 inches	90%	10.43 inches
9.38 inches	95%	9.88 inches

Most of the farmers in the region are making a serious effort to maximize the benefits of the precipitation they receive and maximize water application efficiency through irrigation. Most irrigation systems in the southern High Plains of Texas have a design capacity to only supplement precipitation, **not** to meet the total water demand of the crop. During periods of drought, the crop yield potential declines in amounts proportional to the amount of water lost during the irrigation application. As an example, if the irrigation system is only capable of delivering 10 inches of water per acre during the irrigation season and the application efficiency is 70 percent, the three inches of water lost during irrigation applications translates into a potential yield loss of 150 pounds of lint per acre.

Figure 5 illustrates the efficiency of four types of irrigation application techniques used in the High Plains Underground Water Conservation District No. 1. There are more than 10,000 center pivot systems in operation in the Water District. Surge valves are used on Agricultural Water Conservation Equipment Loan Program almost every farm which does not have a center pivot system. There are 20,000 to 30,000 miles of underground pipe used to convey the water from the wells to the fields being irrigated. It has become a novelty to find a farm being irrigated from an open, unlined ditch. Irrigation application efficiency in the District averages 80 percent or better on 60 to 70 percent of the farms being irrigated in the District.

More than 95 percent of the ground water used in the Water District is used to irrigate crops. The economy of the area is almost totally dependent on agricultural production, either directly or indirectly. Since drought is an inevitable part of West Texas, response to drought where 95 percent of the water use is on agriculture crops cannot be the typical solution used by many municipalities of rationing water. Reducing irrigation to crops grown during periods of drought will result in significant yield reduction and/or crop failure and would be devastating to the region's economy. During periods of drought, the District places an even greater emphasis on conservation, although all the District's programs are at all time directed at preventing waste and promoting water conservation.

Much of the District's education effort is directed toward encouraging conservation practices. Conservation undertaken only during drought conditions can have only limited success. Irrigation water users are encouraged to evaluate their operation and conserve to the best of their ability at all times. The result of the continuing educational efforts of the District over the almost 50 years of its history is that the people within the District are more aware of local water resources and water conservation measures than the population throughout the rest of Texas and the rest of the nation and the rest of the world.

In addition , the educational efforts have paid off through the adoption of ever-increasingly efficient water use by all classes of water users and by the development of ever more efficient technology to deliver the irrigation water.

People from all over the state, the nation, and the world come to this District to learn how to make better, more efficient use of their own water resources.

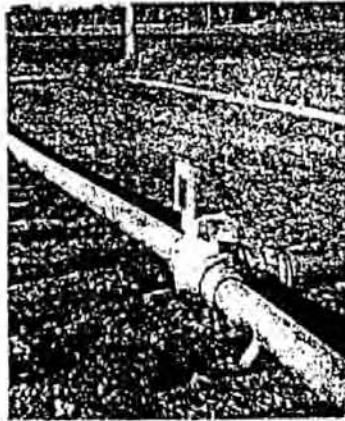
### FURROW IRRIGATION



**60% Efficiency**

A solid set irrigation pattern results in almost two-thirds of the field having a full water surface area exposed to evaporation

### SURGE IRRIGATION



**80% Efficiency**

Water savings from 10 to 40 percent have been measured after the addition of surge valves to conventional furrow irrigation systems.

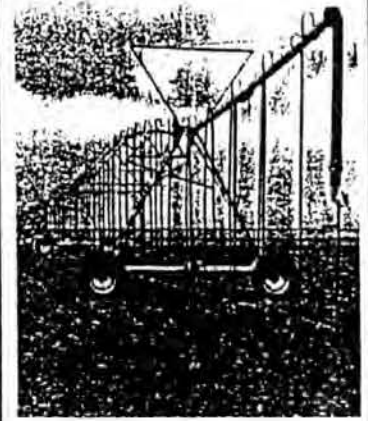
### PARTIAL DROP CENTER PIVOT



**80% Efficiency**

Nozzles located four feet above the soil surface have the same efficiency as surge irrigation during a normal year.

### LEPA



**95% Efficiency**

Nozzles located in the furrow just above the soil surface significantly reduce losses from evaporation and wind drift.

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There is every reason to believe that the constant development of improved, more water-efficient technology will continue and that this new technology will continue to be adopted by the people within this District as fast as it is developed.

**Goals, Management Objectives and Performance Standards**

**Actions, Procedures, Performance and Avoidance for Plan Implementation**

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guidepost for determining the direction or priority for all District activities. All operations of the District, all agreements entered into by the District, and any additional planning efforts in which the District may participate will be consistent with the provisions of this plan.

The District shall treat all citizens equitably.

The District will seek cooperation in the implementation of this plan and the management of ground water supplies within the District. All activities of the District will be undertaken in cooperation and coordination with the appropriate state, regional, and local water management entities.

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**Measurement of Success in Achieving Management Goals**

An annual report will be written outlining the District's performance in achieving its goals. The report will be prepared in a format of the performance standards listed following each management objective. The report will be presented to the Board within 90 days of the end of each fiscal year. The first annual report will be prepared upon completion of the 1998 fiscal year. Estimates of the fiscal resources expended in the accomplishment of each objective will be included in the report.

The District will continue to enforce its rules to conserve, preserve, protect, and prevent the waste of the ground water resources under its jurisdiction. The Board periodically reviews the District's rules and makes revisions as needed to manage the ground water resources within the District more effectively and to assure that the duties prescribed in Chapter 36, Texas Water Code are carried out.

**GOAL 1.0 Continue to Implement Management Strategies to Protect and Enhance the Quantity of Useable Quality Ground Water by Encouraging the Most Efficient Use.**

**Management Objective 1.01— Continue Water Level Monitoring Program**

Annually keep an inventory of available ground water by maintaining an observation well network of approximately one well per 9 square miles, or approximately 1,200 wells within the Water District service area.

**Performance Standards**

- 1.01a Annually, physically measure the depth-to-water below land surface in each well in the observation well network in which it is possible to measure and record the depth-to-water.
- 1.01b Enter the water well measurements into the District's data base each year.
- 1.01c Maintain approximately the same number of wells in the Observation Well Network each year by locating replacements for wells which can no longer be measured and for which the owner's permission can be obtained to use the well for annual measurements.
- 1.01d Provide water level measurements to the landowners/operators by placing a tag on which the measurement is noted on the well when it is measured.
- 1.01e Compare measurements to previous year's measurement and calculate the water level rise/decline in each well for the past year, the past 5 years and the past 10 years.
- 1.01f Calculate average rise/decline for each county or part of a county for the year, for the previous 5 years, and for the previous 10 years. Calculate the net change in the volume of water in storage in each county for the past year.
- 1.01g Disseminate data from annual measurements and comparisons to previous year, previous 5-year period, and previous 10-year period through the District's newsletter and news releases to all print and electronic media within the District.
- 1.01h Maintain depth-to-water income tax depletion allowance database and supply data to landowners annually as one way to keep them aware of changes in their water supply, especially if water level measurements show a dwindling supply.

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## **Management Objective 1.02 — Continue to Update, Publish and Distribute County Hydrologic Atlases**

At five-year intervals, the District constructs and publishes a Hydrologic Atlas for each county within the District and makes the Atlases available to the public. Each Atlas contains four maps and a text explaining the maps. These maps depict the approximate altitude of the base of the Ogallala, the approximate altitude of the water table of the Ogallala, the approximate altitude of the land surface, and the approximate saturated thickness of the Ogallala Formation.

### **Performance Standards**

- 1.02a Measure the depth-to-water in as many wells as possible at five-year intervals to create a database from which to construct revised maps depicting the approximate elevation to the water table in each of the counties.
- 1.02b Update maps illustrating the base of the Ogallala Formation, using data from water well logs drilled since the last maps were constructed.
- 1.02c Construct maps illustrating elevation of water table, elevation of base of the aquifer, and saturated thickness of the aquifer for each county in the Water District.
- 1.02d Publish the updated Atlases in sufficient quantity for distribution during the ensuing five-year period.
- 1.02e Provide Atlases to the public as requested.
- 1.02f Keep records of the number of Atlases distributed each year.

## **Management Objective 1.03 — Continue to Issue Well Permits According to District Spacing Rules**

Issue water well drilling permits for drilling of all non-exempt water wells in accordance with the District's spacing rules.

### **Performance Standards**

- 1.03a Keep records of the number of permits issued each year in each county.
- 1.03b Perform on-site inspections of all wells for which District staff have reason to question compliance with District rules.
- 1.03c Keep records of the number of permits field checked each year.

- 1.03d Keep records of the number of letters mailed to permit applicants requesting applicant to provide additional information or make changes to comply with District rules.
- 1.03e Keep records of the number of these letters which result in changes to comply with District rules and the number of cases still open at year-end.
- 1.03f Plot location of all new permits on topographic map.

**Management Objective 1.04 — Continue to Administer the Low Interest Agricultural Water Conservation Equipment Loan Program**

The District has participated in the TWDB Low Interest Agricultural Water Conservation Equipment Loan Program since it began as a pilot program in 1986. The District will continue to participate as a lender District when the loan rates are favorable and make loans available to all qualified applicants for the purchase of qualified water conserving equipment as long as funds are available.

**Performance Standards**

- 1.04a Keep records of the number of loan applications submitted each year from individual borrowers.
- 1.04b Keep a records of the number of loans made each year.
- 1.04c Keep a record of the number of applications denied each year.
- 1.04d Keep a record of the loans approved, but not closed.
- 1.04e Continue to provide TWDB with annual reports on outstanding loans until all funds from a contract are repaid to the TWDB.

**Management Objective 1.05 — Continue Pre-Plant Soil Moisture Monitoring Program**

Each year, District personnel take soil moisture readings during the winter. The readings are made, using a Troxler Neutron Gauge, in special buried sites throughout the District. These sites are read at 6 inch increments to a depth of 6 feet or to the caliche layer, whichever comes first; the measurements are entered into District's computer data base; contour maps are produced and published before the next crop growing season; and the information is made available through the District's newsletter and all print and electronic media within the District. Irrigators use the maps to determine how much water they need to apply to their fields prior to planing their field crops.

### **Performance Standards**

- 1.05a Maintain a network of approximately 300 sites throughout the District.
- 1.05b Keep a record of the number of sites located and read with neutron probes each year.
- 1.05c Keep a record of the number of sites which staff is unable to locate each year.
- 1.05d Keep a record of the number of sites scheduled to be re-installed or replaced each year.
- 1.05e Construct a contour map showing amount of moisture in the root-zone soil profile.
- 1.05f Construct a contour map showing moisture deficit in the root-zone soil profile.
- 1.05g Publish maps illustrating soil moisture deficits and available moisture in monthly newsletter and provide copies to news media in the area for publication, along with news releases.

### **Management Objective 1.06 — Continue Potential Evapotranspiration Irrigation Scheduling Program**

Each year, farmers willing to participate in an irrigation scheduling program using the weather station data and high frequency light irrigation applications are located and enrolled in the program. Research has shown that this irrigation scheduling method reduces pumpage of irrigation water.

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### **Performance Standards**

- 1.06a Keep a record of the number of farmers signed to participate each year.
- 1.06b Keep a record of the number of farmers who follow the program throughout the season each year, along with the number who drop out and their reasons for not following the program.

## **GOAL 2. Continue to Implement Programs to Protect the Quality of the Aquifer and to Control and Prevent the Waste of Ground Water**



## **Management Objective 2.01 — Continue to Provide Laboratory Services to Residents**

Continue to provide fecal coliform bacteria testing service to residents of the District at their request and report results of tests promptly. On an annual basis, the District will perform these tests for all of those requesting the service.

### **Performance Standards**

- 2.01a Maintain a record of all tests performed.
- 2.01b Provide options for sanitizing wells if result is positive.
- 2.01c Retest well after sanitizing.
- 2.01d Keep a record of laboratory service tests conducted each year.
- 2.01e Keep a record of the number of samples collected each year.
- 2.01f Keep a record of the number of results communicated to those requesting tests each year.

## **Management Objective 2.02 — Continue to Assure Proper Closing, Destruction, or Re-equipping Under District Rules of Abandoned or Replaced Wells**

Field inspect each well abandoned or replaced and assure proper closing under Water Well Drillers' Rules or that the well is re-equipped in accordance with District rules.

### **Performance Standards**

- 2.02a Keep records of number of wells abandoned or replaced each year.
- 2.02b Keep records of the number of wells destroyed and note on the topographic map each year.
- 2.02c Keep records of the number of wells re-equipped in accordance with the District's rules each year.

## **Management Objective 2.03 — Continue to Enforce the District's Rule on the Closing of Open or Uncovered Wells**

The District staff inspects all sites reported as being open or improperly covered in a timely manner and follows through to assure proper closing or repair.

**Performance Standards**

- 2.03a Notify owner and/or operator if an open hole or deteriorated well exists.
- 2.03b Keep records of the number of open, improperly covered, or deteriorated wells reported and inspected each year.
- 2.03c Keep records of the number of notification letters mailed each year.
- 2.03d Keep records of the number of second notices mailed each year.
- 2.03e Keep records of the number of wells the District had to close each year.
- 2.03f Keep a record of the number of well plugs provided annually.

**GOAL 3. Continue to Implement Management Strategies That Provide Public Information/ Education Opportunities To Assist In Accomplishing Goals 1.0 and 2.0.**

35 **Management Objective 3.01: Monthly Newsletter (*The Cross Section*)**

36 Each year, 12 newsletters are produced for distribution to District constituents and other interested parties. A minimum of 12 articles will appear each year discussing methods to enhance and protect the quantity of usable quality ground water within the District.

**Performance Standards**

- 3.01a Annually document number of newsletters published.
- 3.01b Annually document the circulation of the newsletter during that year.

**Management Objective 3.02 -- Continue to Provide News Releases To Print and Electronic Media within the District**

Each year, news releases discussing methods to enhance and protect the quantity of usable quality ground water are written and distributed to all print and electronic media within the District.

**Performance Standards**

- 3.02a Annually document number of news releases prepared and distributed to local and regional media detailing methods to enhance and protect the quantity of usable quality ground water within the District.

### **Management Objective 3.03 — Continue to Produce Radio Public Service Announcements and Distribute Them to Stations Located Within the District**

Each year, a series of 60-second pre-recorded radio public service announcements discussing methods to enhance and protect the quantity of usable quality ground water are produced and distributed to radio stations within the District.

#### **Performance Standards**

- 3.03a Annually document number of public service announcements produced, distributed, and aired on local radio stations within the District.

### **Management Objective 3.04 — Continue to Produce TV Public Service Announcements**

Each year, a series of 30-second pre-recorded TV public service announcements discussing methods to enhance and protect the quantity of usable quality ground water are produced and distributed to regional television stations.

#### **Performance Standards**

- 3.04a Annually document number of public service announcements produced and distributed to regional television stations.

### **Management Objective 3.05 — Continue to Make Public Presentations**

Each year, District staff presents a minimum of 15 programs addressing protection and enhancement of usable quality ground water in the District.

#### **Performance Standards**

- 3.05a Annually document number of public presentations given by District staff and Board

### **Management Objective 3.06 — Continue to Maintain Public Information Boards At District Office**

Each year, the District makes Water Management Notes, technical reports, brochures, and other printed information available to the public in the reception area of the Water District office and at its county offices.

#### **Performance Standards**

- 3.06a Annually document the number of publications made available to the public via the information boards.

- 3.06b Annually document the number of the items printed and/or photocopied for public distribution.

### **Management Objective 3.07 -- Continue to Design Public Information Displays For Use At Fairs/Meetings**

Each year, the District places informative displays at regional fairs, farm shows, and professional meetings to address the protection and enhancement of usable quality ground water in the District.

#### **Performance Standards**

- 3.07a Annually document the number of the displays placed at regional fairs, farm shows, and professional meetings within the Water District's service area.

### **Management Objective 3.08 — Continue to Provide Information Via Internet Website**

This past year, the District began to make information about water and water conservation available to the public via its home page on the Internet. This information is continuously updated.

#### **Performance Standards**

- 3.08a Annually document the number of "hits" the Water District web site receives.

### **Management Objective 3.09 — Continue to Sponsor Classroom Education Programs**

For the past two years, the District has sponsored the *Learning To Be Water Wise* water conservation education program (featuring home retrofits with high-efficiency fixtures) and its accompanying curriculum in public and/or private schools within its service area.

#### **Performance Standards**

- 3.09a Annually prepare a program overview, documenting the names of participating schools, the number of participating students, program operation, feedback from students/teachers, and projected water savings as a result of the program.
- 3.09b Use of the *Learning To Be Water Wise* pre-test and post-test will identify annually how much students have learned about water and water conservation as a result of this education program.

- 3.09c Make annual evaluation of water savings achieved as a result of the *Learning To Be Water Wise* education program sponsored by the District.

### **Management Objective 3.10 — Continue to Make Classroom Presentations**

Upon request by instructors, District Information/Education Section staff members visit area classrooms to present information about ground water quality, quantity, and water conservation to public school students.

#### **Performance Standards**

- 3.10a Annually document the number of classroom presentations made.

### **Management Objective 3.11 — Continue to Make Audio-Visual Materials Available to Teachers**

Each year, the District makes 16mm films and videos on a wide-range of water-related subjects available through regional education service centers and the Water District headquarters. Films and videos are evaluated by District staff. Those considered worthwhile are purchased and distributed to the regional education service centers in Amarillo and Lubbock.

#### **Performance Standards**

- 3.11a Annually document the number of audio-visual materials utilized by teachers within the Water District.

### **Goals not Applicable**

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

- § 36.1071 (a) (3) Controlling and preventing subsidence
- § 36.1071 (a) (4) Addressing conjunctive surface water management issues
- § 36.1071 (a) (5) Addressing natural resource issues

A RESOLUTION by the High Plains Underground Water Conservation District No. 1 adopting a revised ten-year management plan and authorizing the filing of this management plan with the Texas Water Development Board for certification

WHEREAS, after public notice and hearing, the Board hereby finds that the attached revised ten-year Management Plan addresses the purposes for which this district was formed in 1951 by vote of the people; and

WHEREAS, after review, the Board hereby finds that the attached revised ten-year Management Plan fulfills the requirements of Texas Water Code, Section 36.1071, as amended by Senate Bill 1 passed by the 75<sup>th</sup> Texas Legislature, 1997;

BE IT THEREFORE RESOLVED BY THE BOARD OF DIRECTORS OF THE HIGH PLAINS UNDERGROUND WATER CONSERVATION DISTRICT NO. 1 that the attached revised ten-year Management Plan is hereby approved and authorized to be filed with the Texas Water Development Board seeking review and certification by the Texas Water Development Board, as required by Texas Water Code, Section 36.1072.

James P. Mitchell  
James P. Mitchell  
President, Board of Directors

ATTEST:

Bruce Rigler  
Bruce Rigler  
Secretary/Treasurer, Board of Directors

(DISTRICT SEAL)



CERTIFICATION

THE STATE OF TEXAS  
COUNTY OF LUBBOCK

We, the undersigned members of the Board of Directors of the High Plains Underground Water Conservation District No. 1 (the "District"), Lubbock, Texas, DO HEREBY CERTIFY as follows:

1. That on the 11<sup>th</sup> day of August 1998, a meeting of the Board of Directors was held at 10:00 a.m. in the Conference Room located at 2930 Avenue Q, Lubbock, Texas; the duly constituted members of the Board of Directors being as follows and being present at said meeting:

James P. Mitchell, President  
Dale Gober, Vice President  
Bruce B. Rigler, Secretary/Treasurer  
Robert J. Meyer, Member  
Jim Copeland, Member

2. That a public hearing, with due notice published and posted, was held to receive public input into the content of the district's proposed management plan.
3. That following the hearing, the attached resolution entitled: "A RESOLUTION by the High Plains Underground Water Conservation District No. 1 adopting a revised ten-year management plan and authorizing the filing of this management plan with the Texas Water Development Board for certification" was introduced and submitted to the Board for passage and adoption. After presentation and due consideration of the resolution, and upon a motion made by Dale Gober and seconded by Robert Meyer, the resolution was duly passed and adopted by the Board by the following vote:

5 voted "For"                      0 voted "Against"                      \_\_\_\_\_ abstained

all as shown in the official Minutes of the Board for the meeting held on the aforesaid date.

4. That the attached resolution is a true and correct copy of the original on file in the official records of the Board; the duly qualified and acting members of the Board on the date of the aforesaid meeting are those persons shown above and, according to the records of the Secretary's office, advance notice of the time, place and purpose of said meeting was given to each member of the Board of the District; and that said meeting, and deliberation of the aforesaid public business, was open to the public and written notice of said meeting was posted and given in advance thereof in compliance with the provisions of TEXAS GOVERNMENT CODE ANNOTATED, Chapter 551.

TO CERTIFY WHICH AND IN WITNESS WHEREOF, we have hereunto signed our names officially and affixed the seal of said District, this the 11<sup>th</sup> day of August 1998.



---

James P. Mitchell  
President, Board of Directors

---

Dale Gober  
Vice President, Board of Directors

---

Bruce B. Rigler  
Secretary/Treasurer, Board of Directors

---

Robert Meyer  
Member, Board of Directors

---

Jim Copeland  
Member, Board of Directors

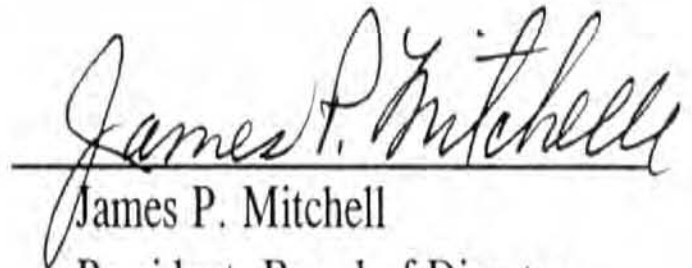


Affidavit

State of Texas

County of Lubbock

Before me, the undersigned official representative of the High Plains Underground Water Conservation District No. 1, James P. Mitchell, who being by me here and now duly sworn, upon oath says: "I do solemnly swear that the foregoing resolution on to which this affidavit is attached, is in all things true and correct to the best of my knowledge and belief.

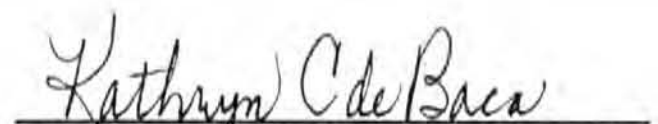


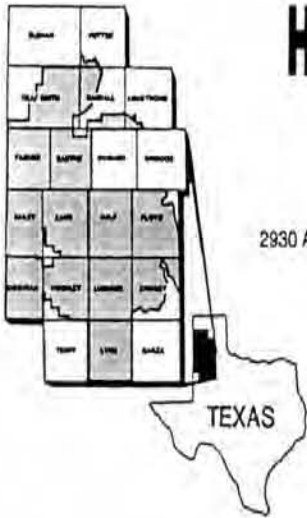
James P. Mitchell

President, Board of Directors  
High Plains Underground Water  
Conservation District No. 1

Sworn to and subscribed before me, by the said James P. Mitchell on this the 11<sup>th</sup> day of August 1998 to certify, which witness my hand and seal of office.



  
Kathryn C de Baca  
Notary Public



# HIGH PLAINS UNDERGROUND WATER CONSERVATION DISTRICT NO. 1

2930 Avenue Q

LUBBOCK, TEXAS 79405

806 762-0181  
FAX 806 762-1834

## BOARD OF DIRECTORS

JAMES P. MITCHELL	President
DALE GOBER	Vice President
BRUCE B. RIGLER	Secretary-Treasurer
ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

12

John Williams  
Canadian River Municipal Water Authority  
P.O. Box 99  
Sanford, TX 79078

Dear John:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Development Board rules, Texas Administrative Code, §356.6.

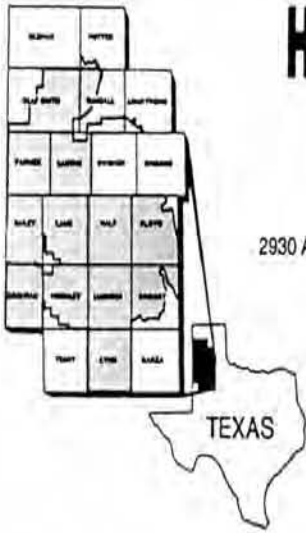
If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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JIM COPELAND	Member

A. WAYNE WYATT	Manager
----------------	---------

August 12, 1998

Roy Garris  
Mackenzie Municipal Water Authority  
Route 1 Box 14  
Silverton, TX 79257

Dear Roy:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Development Board rules, Texas Administrative Code, §356.6.

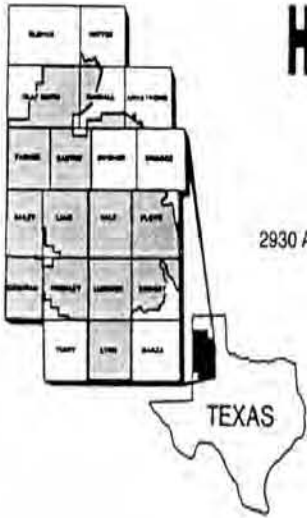
If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

Tommy O'Brien  
White River Municipal Water District  
Star Route 2  
Spur, TX 79370

Dear Tommy:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Development Board rules, Texas Administrative Code, §356.6.

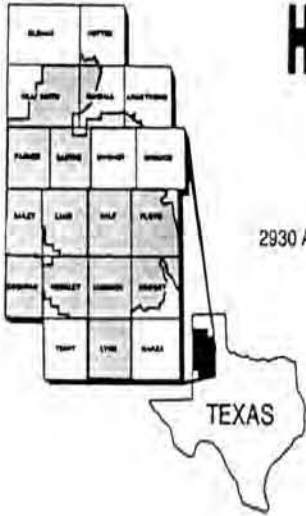
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Sincerely,

A. Wayne Wyatt  
General Manager

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JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

Glen Olson, Manager  
Dallam County U.W.C.D  
P.O. Box 103  
Texline, TX 79087

Dear Mr. Olson:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

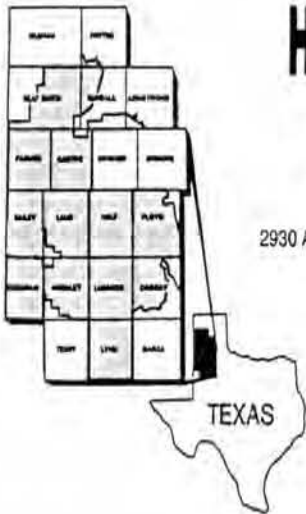
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Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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ROBERT J. MEYER	Member
JIM COPELAND	Member

A. WAYNE WYATT	Manager
----------------	---------

August 12, 1998

Ferrell Wheeler, Chairman  
Garza County Underground and Fresh  
Water Conservation District  
Route 2 Box 134

Post, TX 79356

Enclosed is a copy of the Water Management Plan adopted by the Board  
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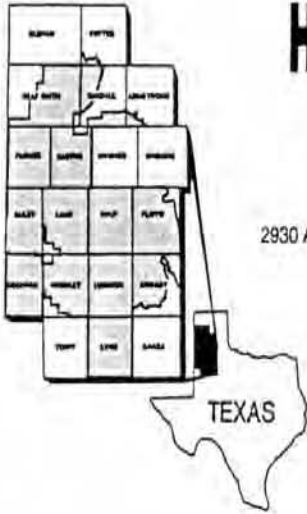
If you see any conflict, please let me know as soon as possible, so that  
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Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

Harvey Everheart  
Mesa U.W.C.D  
P.O. Box 497  
Lamesa, TX 78331

Dear Harvey:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

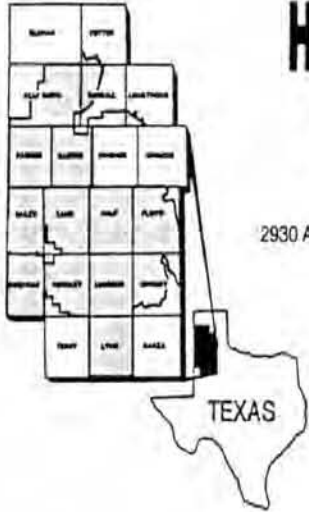
Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors

# HIGH PLAINS UNDERGROUND WATER CONSERVATION DISTRICT NO. 1



2930 Avenue Q

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ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

Richard Bowers, Manager  
North Plains G.C.D. #2  
P.O. Box 795  
Dumas, TX 79029

Dear Richard:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

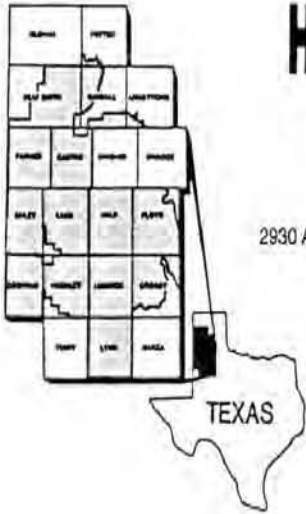
Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors





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ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

C. E. Williams, Manager  
Panhandle G.C.D. #3  
P.O. Box 637  
White Deer, TX 79097

Dear C.E.:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

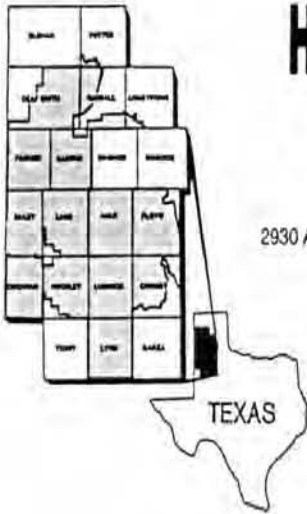
If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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JIM COPELAND	Member

A. WAYNE WYATT	Manager
----------------	---------

August 12, 1998

Frand Acosta, Jr.  
Permian Basin U.W.C.D.  
P.O. Box 1314  
Stanton, TX 79782

Dear Mr. Acosta:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

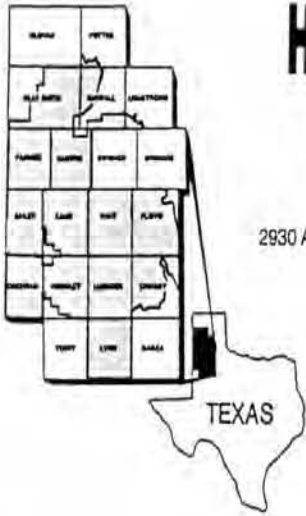
If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



# HIGH PLAINS UNDERGROUND WATER CONSERVATION DISTRICT NO. 1

2930 Avenue Q

LUBBOCK, TEXAS 79405

806 762-0181  
FAX 806 762-1834

## BOARD OF DIRECTORS

JAMES P. MITCHELL	President
DALE GOBER	Vice President
BRUCE B. RIGLER	Secretary-Treasurer
ROBERT J. MEYER	Member
JIM COPELAND	Member
<hr/>	
A. WAYNE WYATT	Manager

August 12, 1998

Lee Arrington  
South Plains U.W.C.D.  
P.O. Box 986  
Brownfield, TX 79316

Dear Lee:

Enclosed is a copy of the Water Management Plan adopted by the Board August 11, 1998, per Texas Water Code, §36.108.

If you see any conflict, please let me know as soon as possible, so that your concerns can be addressed.

Sincerely,

A. Wayne Wyatt  
General Manager

AWW:bw

cc: Board of Directors



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JIM COPELAND	Member

A. WAYNE WYATT	Manager
----------------	---------

August 12, 1998

TWDB  
RECEIVED

AUG 17 1998

TO: BM-original

Craig Pedersen  
Executive Administrator  
Texas Water Development Board  
P.O. Box 13231  
Austin, Texas 78711-3231

Dear Mr. Pedersen:

Enclosed, per Texas Water Development Board rules, 31 Texas Administrative Code, §356.6, are the following:

- (a)(1) a copy of the District's adopted (amended) management plan
- (2) a certified copy of the District's resolution adopting the plan
- (3) a copy of the legal notice run in the *Lubbock Avalanche-Journal* and the *Amarillo Globe-News* giving notice of a hearing to receive input on the management plan
- (4) a copy of the cover letters written to the Canadian River Municipal Water Authority, the White River Municipal Water District, and the Mackenzie Municipal Water Authority, sent along with a copy of the adopted management plan and asking for any input they might have. (This is a moot point, since this District has no jurisdiction over the surface water and therefore has not included any plan for the use of surface water in its water management plan.)
- (5) no evidence of consistency with and any conflict between the adopted management plan and an approved regional water plan, since no regional water plan has yet been adopted.

Please certify this management plan for administrative completeness. It has been reviewed by Comer Tuck and three other staff reviewers and found to be administratively complete.

Also enclosed are copies of the cover letters written to the other underground water conservation districts lying over the Ogallala Aquifer, sent along with a copy of the adopted management plan and asking for any input they might have, per Texas Water Code, §36.108.

Sincerely

A. Wayne Wyatt  
General Manager

AWW:b

cc: Board of Directors

**BRIEFS**

**Police seeking suspects in overnight vandal spree**

A vandalism spree that started Thursday night and continued through Friday morning resulted in about 45 different vandalism reports linked to the same suspects, said Cpl. Jerry Neufeld of the Amarillo Police Department.

The vandalisms started shortly after 10 p.m. Thursday and continued until dawn Friday, said Neufeld. The majority of the vandalisms consisted of suspects shooting out windows in cars and homes with a pellet or BB gun, although Neufeld said reports of suspects driving their car through residential lawns also likely were conducted.

Police can't be sure precisely how many vandalisms were committed by the same suspects until they are able to sort through the approximately 60 vandalism reports they received from Thursday night and separate the normal reports from the ones connected to the spree, Neufeld said.

The high number of connected incidents and the distance between vandalisms make this vandalism fairly unique, Neufeld said. The vandals took in practically every area of the city, Neufeld said.

"We really haven't had a vandalism spree like this in some time," Neufeld said. "These people did a lot of driving to commit this many

crimes over such a wide area."

Police are continuing to search for suspects in the crime spree, but in the meantime, Neufeld said residents can take a few precautions to reduce their chances of becoming victims of this sort of crime.

"The big thing is don't park on the street if it's at all possible," Neufeld said. "Obviously, if you have a garage, we encourage you to use it."

"If you don't have a garage, try to park as close to the house as you can in a well-lighted area."

**SWAT team arrests three in Thursday home raid**

The Amarillo Police Department's SWAT team had a busy day Thursday, following up their drug bust at the Caravan Motel in the morning with another raid at a private home in the afternoon.

The afternoon raid occurred in the 1200 block of South Lincoln Street shortly before 3 p.m. Thursday, a police report said.

The three suspects — two males and a female — who lived in the house had been the subject of an extensive investigation prior to the raid.

Police arrested all three subjects and seized more than seven grams of cocaine with a street value of more than \$800.



Robert Mulhern / Globe-News

**A clean start**

Kim Fields helps more than 50 volunteers remove debris, glass and weeds from vacant areas near Northwest Ninth Avenue and North Hughes Street on Friday as part of the Community Cleanup Day sponsored by the Amarillo United Citizens Forum.

**LEGAL NOTICE**

Hedley Consolidated Independent School District will accept competitive sealed proposals on items in the following categories until 10:00 a.m. August 14, 1998.

Meat products and dairy products for the period of September 1, 1998 through August 31, 1999.

Interested vendors should contact Gene Sheets, Superintendent, at P.O. Box 69, Hedley, Texas, 79237 or call 806-456-5223 for specifications. Hedley ISD reserves the right to accept or reject any or all proposals and to waive formalities.

Runs: N 89, S 89

**LEGAL NOTICE**

**LEGAL NOTICE**

Notice is hereby given that a hearing will be held at 10:00 a.m., Tuesday, August 11, 1998, in the Board Room of the High Plains Underground Water Conservation District No. 1, for the purpose of hearing testimony regarding the District's proposed amended Management Plan required under Senate Bill 1, passed by the 75th Texas Legislature, 1997.

Runs: N 88

**Used Modular Buildings**

Many Sizes • 54x100 • 32x118 • 42x62 • 28x70 • 30x48 • up to 9000 sq. ft.

All the comforts of home for the dorm!

Cotton jersey knit sheet sets

29.97 - 49.97 T/TXL-F-Q-K

Soft and comfortable — like a favorite tee shirt

\$50 to \$80 elsewhere

Step up to the head of the class in footwear by 9 & CO.

49.98 Men's "Cyclone"  
Rugged oiled leather tie, \$65 elsewhere

39.98 Women's "Hop-on"  
Updated loafer, \$58 elsewhere

**Bush to visit Pampa**

PAMPA — Gov. George W. Bush will spend about an hour Friday at a community reception in Pampa, and at least part of that time will be spent talking to the public informally.

Bush will address the community for about 10 minutes at the 2:40 p.m. scheduled reception, then spend about 50 minutes talking, posing for photographs and signing autographs, Bush spokeswoman Heather Browne said. The reception will be held at the M.K. Brown Room of the Pampa Community Building.

Pampa was chosen for the reception because of its size, Browne said. Bush has been targeting smaller communities this summer that usually don't get a chance to meet with the governor, Browne said.

**CALENDAR**

**Today**

• "RICHARD III," Shakespeare in the park, free, 8 p.m., Sam Houston Park, Western Street & Ninth Avenue.

• COLLECTOR'S SHOW, 9 a.m. to 6 p.m., Civic Center Meeting Room.

• TEXAS GUN AND KNIFE SHOW, 9 a.m. to 6 p.m., Civic Center Meeting Room.

• "TEXAS," 8:30 p.m., Palo Duro Canyon State Park Pioneer Amphitheater.

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Clothes, Car Stereo System, King, PUL, FRIG, S.A.V., 810A AVE W, (11:30) & Saturday 10am-12 Noon  
**2407 92nd**  
New Gas Driv'er, Recliner, Bicycle, & Misc.  
**GARAGE SALE**  
Slightly Used Only Items, Various Household Items, Records & Linens.  
2101 94th St.

**Garage Sales/Zone 7**  
BACK TO SCHOOL SALE! Clothes For Jr's, Men And Women, Some Designer Promotional Shirts, Kitchen Appliances, Misc. Items, And Other Household Items 5:30- 8:57H  
Saturday, Only 7:30am-5pm

**Garage Sales**  
**ESTATE SALE**  
Friday, August 7 8:00 - 7:00 p. m.  
Saturday, August 8 8:00 a. m. - 5:00 p. m.  
Sunday, August 9 Noon - 5:00 p. m.  
**ESTATE OF VILAS DOSS**  
317 E. 12th Street  
Littlefield, Texas  
Curtis, Quilling Material, Sewing Notions, Furniture, Appliances, General Household Items, Old Magazines, Books Christmas Items  
Sale Conducted By  
Jacque & Pat Hastings, J. Patrick's Antiques  
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796-2439

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Let The A-J Classified  
Department HELP You  
Find That Special Pet!

**AGENDA**  
**STRUCTURAL STANDARDS**  
**COMMISSION**  
Tuesday, August 11, 1998  
1:30 p.m. - City Council Chambers  
The Structural Standards Commission will hold a public hearing to determine if certain properties and structures in Lubbock, Texas are in violation of the Structural Standards Commission's rules. If you are interested in all persons regardless of disability, if you wish to speak at the hearing, please contact Mark Kessler at (806) 797-2918 or at 1425 13th Street, Room 106, at least forty-eight (48) hours in advance of the hearing. Writies to be heard may be held by the Commission between 3:30 p.m. and 5:00 p.m. on August 11, 1998. All interested persons may speak, then a determination will be made and remedial action ordered on the following cases:

Case No. #1881  
Location: Street  
Legal Description:  
Blk 19 L 4  
Parks Addition  
W.R. Enloe & Sylvia Enloe  
Charles Baldwin  
Case No. #1882  
Location:  
Legal Description:  
Blk 24 L 3  
Amarado Flores  
Amarado Flores  
Case No. #1883  
Location:  
Legal Description:  
Blk 131 L 17  
Thomas Stern  
Interested Parties:  
W.L. Smith  
Case No. #1884  
Legal Description:  
Blk 32 L 2  
Owner:  
Clemente Borella  
Interested Parties:  
Robert A. Brandt, Trustee  
Ricky Green  
Case No. #1885  
Legal Description:  
Blk 2 L 2 & 3 1/2 of Addition  
\*PICKUPPER Addition  
Owner:  
Byrd Construction Co.  
Approved Minutes of July 14, 1998  
Other Business: Release of Orders For Cases #1706  
Discussion of Legal Structural Stand-  
ards Commission



# Garage Sale

You can find a Garage Sale in a particular section by checking listings in our Zoned Classified section. The map shows major streets and highways in the Lubbock City Limits.

**Garage Sale**  
You can find a Garage Sale in a particular section by checking listings in our Zoned Classified section. The map shows major streets and highways in the Lubbock City Limits.

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\$8/Bushel.  
Call 832-3731.  
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BLACK-EYED PEAS, East Of City Near Buffalo Lakes 744-1133  
CADES: Black Eyed, Purple Hull & Cream Peas. Over 100 Varieties. (Exhaustive) Great Corn. 308-4464  
The Bushel Texas Peaches by the Dozen Or 50 Bushel, Wine Apples, Peaches, Blueberries, Raspberries, Strawberries, Apples, Nuts, etc. Call 808-4  
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