

**Annual Report  
to the  
Board of Directors  
on  
Attainment of Management Plan Goals  
and  
Selected Activities  
of the**

**South Plains Underground  
Water Conservation District**

**Fiscal Year 2004**

**September 1, 2003 through August 31, 2004**

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# South Plains Underground Water Conservation District

## Board of Directors

<u>Name</u>	<u>Representing</u>	<u>Term Ends</u>
Dan Day, President	Precinct 3	May 2008
Doyle Moss, Vice-President	Precinct 1	May 2008
Scott Hamm, Secretary	Precinct 4	May 2006
Matt Hogue, Member	Precinct 2	May 2006
Larry Yowell, Member	Director-at-Large	May 2006

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## **District Mission Statement**

The South Plains Underground Water Conservation District will develop, promote, and implement management strategies to provide for the conservation, preservation, recharging, and prevention of waste of the groundwater resources, over which it has jurisdictional authority, for the benefit of the people that the District serves.

## **Introduction and Overview**

SB 1, 75<sup>th</sup> Texas Legislature (1997), requires groundwater conservation districts governed by Chapter 36, Texas Water Code, to submit management plans for certification by the Texas Water Development Board. The management plans must specifically address the following management goals as applicable:

1. provision for the most efficient use of groundwater;
2. control and prevention of the waste of groundwater;
3. control and prevention of subsidence;
4. conjunctive surface water management issues;
5. natural resource issues;
6. drought conditions; and ,
7. conservation

The management plans must also identify the performance standards and management objectives under which each district will operate to achieve their management goals.

The current Management Plan of the District was developed during the spring and summer of 2003. After notice and hearing, the Board of Directors officially adopted the plan on September 9, 2003. The plan became effective on September 9, 2003 and was certified by the Texas Water Development Board on November 7, 2003.

This annual report is a review of the District's activities for fiscal year 2004 and an evaluation of the District's performance in meeting its goals and objectives.

## **Report on Attainment of Goals**

### **Goal 1.0 Encouraging the most efficient use of groundwater**

#### **Management Objective 1.01—Water Level Monitoring**

During winter 2004, 139 wells were measured. This compares to 139 wells in 2003. A report of the change in water levels was presented at the South Plains Ag Conference in January. Also, a list of water level measurements was included in the May edition of the District's newsletter

#### **Performance Standards**

**1.01a**—100% of measurement wells had water levels recorded

**1.01b**—100% of wells not measured had notes describing reason

**1.01c**—139 water level measurements entered into database

**1.01d**—139 wells in network

**1.01e**—There were no new wells added in 2004

#### **Management Objective 1.02—Technical Field Services**

99 requests for Technical Field Services were fulfilled in 2004. This is 38 fewer than the 137 requests in 2003. May was the busiest month for flow tests, when 30 tests were performed.

The District's database makes the entry and retrieval of flow test information much easier.

#### **Performance Standards**

**1.02a**—100% of field service requests were fulfilled

**1.02b**—524 tests were entered in database. Some of the results were from previous years.

#### **Management Objective 1.03—Laboratory Services**

The total number of lab tests performed for producers in 2004 was 71. This is lower than the 130 tests run in 2003.

Also, 14 bacteria tests were run in 2004, compared to 34 in 2003.

#### **Performance Standards**

**1.03a**—85 lab service requests were fulfilled

**1.03b**—512 records entered in database. Some of the results were from previous years.

**1.03c**—85 results were reported to constituents

#### **Management Objective 1.04—Research and Demonstration**

During 2004, the District participated in two research and demonstration projects. These projects included a grant proposal to the TWDB for analysis of several metering methods, as well as participation in the Hamilton Park Project. Unfortunately, the TWDB grant was denied. The District is assisting the development of natural resources panels for the future Hamilton Park.

**Performance Standards**

**1.04a**—The District participated in 100% of the research and demonstration project opportunities

**1.04b**—2 records of these opportunities noted in minutes

**Management Objective 1.05—Center Pivot Inventory**

No center pivot inventory was required in 2004 by the District’s Management Plan.

**Performance Standards**

**1.05a**—N/A

**1.05b**—N/A

**1.05c**—1,428 pivots, 36 side rolls, 2 row water, and 2 hand move type irrigation systems are entered in District’s database

**Goal 2.0**

**Controlling and Preventing Waste of Groundwater**

**Management Objective 2.01—Well Permitting and Completion**

Since March 1993, the District has issued over 1,587 permits. The number of permits issued during 2004 was 128. This is greater than the number issued in 2003, which was 119. January had the highest number of permits issued, which was 37.

Also, 167 wells were inspected during 2004.

**Performance Standards**

**2.01a**—128 permits issued

**2.01b**—167 well sites inspected

**2.01c**—28 well sites failed to meet completion standards

**Management Objective 2.02—Open, Deteriorated or Uncovered Wells**

Open or uncovered wells are discovered in one of two ways:

1. a person reports it to the District office, or
2. District staff discovers the well during a field visit

Eleven open, deteriorated or uncovered wells were reported to or discovered by District staff during 2004. Nine wells have been corrected at this time.

**Performance Standards**

**2.02a**—11 open, deteriorated or uncovered wells reported to the District

**2.02b**—11 initial inspections accomplished

**2.02c**—Initial contact with landowner made in approximately 1 day

**2.02d**—The average time to be corrected was 47 days

**2.02e**—Nine were corrected (82%). The remaining 2 are allotted time that extends into FY 2005.

**Management Objective 2.03—Maximum Allowable Production**

There were no reports of suspected maximum allowable production violations during 2004.

### **Performance Standards**

**2.03a**—No reports to investigate

**2.03b**—N/A

**2.03c**—N/A

### **Management Objective 2.04—Water Quality Monitoring**

Water quality samples were obtained during the summer of 2004. These were taken from the District's established network of wells. Some wells that were sampled in 2003 were not sampled in 2004 because they were not in operation. Also, the 2003 water quality map was posted for viewing and printing on the District's web site.

### **Performance Standards**

**2.04a**—93 samples collected and analyzed

**2.04b**—92% of samples analyzed in 2003 were analyzed in 2004

**2.04c**—2 water quality maps were made available to the public (office and web)

**2.04d**—93 test results were entered in database

## **Goal 3.0**

### **Public Education and Information**

#### **Management Objective 3.01—Classroom Education**

During 2004, the District continued its 2 educational programs, which consist of book covers and the *Major Rivers* curriculum.

#### **Performance Standards**

**3.01a**—*Major Rivers* was distributed to eight 4<sup>th</sup> grade classes at three schools

**3.01b**—4,500 book covers distributed

#### **Management Objective 3.02—Newsletter**

Four editions of the District's newsletter, *South Plains Groundwater News*, were published during 2004. The May edition of the newsletter contained a history of water level measurements from the District's network of water level measurement wells. Also included was a map of the District showing all of the measurement well locations.

#### **Performance Standards**

**3.02a**—Four newsletter editions were published

**3.02b**—3,901 newsletters were distributed

**3.02c**—4 articles addressed methods of enhancing and protecting the quantity of useable quality groundwater

#### **Management Objective 3.03—News Releases**

Sixteen news articles were published in the *Brownfield News* during 2004. These articles addressed the District's cost-in-water depletion program, the involvement in the Southern Ogallala Aquifer Rain Enhancement (SOAR) Program, articles on rainfall, waste and a flow meter repair service provided by the District. The District's web site was also utilized to post news releases.

**Performance Standard**

**3.03**—Sixteen news releases were prepared for publication in the local newspaper

**Management Objective 3.04—Public Speaking Engagements**

The District fulfilled 6 public speaking engagements during 2004. These included:

- Update on water levels and water quality at the 2004 South Plains Ag Conference
- Presentations to two civic groups—Brownfield Lions Club in October and the Ropesville Ladies Club in January.
- Three presentations were made to area school children—Kids, Kows & More in October and two presentations to the Brownfield 4<sup>th</sup> graders in December

**Performance Standard**

**3.04**—Six programs were presented to protect and enhance our groundwater

**Management Objective 3.05—Printed Material Resource Center and Technical File**

Thirty-seven (37) different publications are displayed in the reception area of the office. These publications are obtained from various sources, including the TWDB, the USGS and the Texas Ag Extension Service. District staff developed three of the brochures.

144 items were distributed from the resources center. 14 of these items were related to irrigation water quality.

**Performance Standards**

**3.05a**—There were 37 items on conservation, 15 on rules, 28 on permitting, 38 on water quality and 26 on general information procured by the public from the resource center

**3.05b**—No items were requested from the District’s technical file

**Goal 4.0 Drought Condition Information**

**Management Objective 4.01—Rain Gages**

The District maintains a network of 30 rain gages. The readings from the rain gages are gathered monthly and rainfall maps are published on the District’s web site.

**Performance Standards**

**4.01a**—30 rain gages in District network

**4.01b**—354 monthly rain gage readings

**Goal 5.0**      **Conservation Techniques and Remaining Useable Groundwater**

**Management Objective 5.01—Saturated Thickness Maps**

**Performance Standards**

**5.01a**—There are currently 2 saturated thickness maps displayed in the District office. The maps are also available on the District’s web site.

**Management Objective 5.02—Conservation Literature**

Thirteen publications displayed in the reception area of the office are devoted to water conservation for the home and the farm.

**Performance Standards**

**5.02a**—13 publications are dedicated to water conservation

**5.02b**—31 items were obtained by the public in 2004

## **SPUWCD WEATHER MODIFICATION PROGRAM**

The District was involved in the Southern Ogallala Aquifer Rainfall Enhancement (SOAR) program during 2004. This was the seventh year the District has participated in weather modification. The target area contains 3 groundwater districts in Yoakum, Gaines and Terry Counties. The Sandy Land UWCD administered the program operations, and the South Plains UWCD recorded rainfall data and supplied the monthly rainfall contours for the program.

The program started April 1 and ended August 31. The District's network of rain gauges averaged 12.54 inches April through August, compared to 7.64 inches for the same period last year. The District spent \$24,000 during the 2004 program, compared to \$24,000 in 2003.

## **IRS COST-IN-WATER DEPLETION PROGRAM**

2004 was the fifth year the South Plains Underground Water Conservation District participated in the IRS cost-in-water depletion program. This program benefits irrigated landowners who have experienced a cash loss due to declining water levels. The program was considered a success, as 70 landowner requests were processed, including 7 new requests.

## **SPUWCD.ORG**

The District has developed and maintains a web site. The site provides education and information for District constituents, as well as people state-wide. The web site can be accessed from the Texas Alliance of Groundwater District's web site and from various water district web sites. General information, hydrologic maps, rainfall information, newsletters, rules, management plan and district program descriptions are available on the site. In 2004, there were a total of 10,539 visitors to the web site.

## **OTHER ACTIVITIES**

The District joined the Groundwater Coalition for Legislative Services. Approximately 35 groundwater conservation districts in Texas formed the Coalition to hire a lobbyist team which advocates those issues concerning groundwater conservation districts. Currently, the lobbyist team consists of Ron Lewis and Sabrina Brown.

The District was requested by TAGD to serve as a representative on the NRCS State Technical Committee. The use of Farm Bill funds for conservation programs is helpful for groundwater conservation, and having representation at this level should benefit groundwater conservation districts throughout the State.

During 2004, the Water Conservation & Implementation Task Force developed several recommendations for the Legislature. Among these is a proposal that the Legislature fund a state-wide water awareness ad campaign. Because the legislature has yet to consider the matter, interim funding was sought for initial work. River authorities, groundwater conservation districts and municipalities all contributed some money for this purpose. The South Plains UWCD Board approved a \$500 contribution for this important effort, demonstrating the Board's commitment to education throughout Texas.

## SUMMARY

The original legislative intent of groundwater district performance evaluations through management plan certification and auditing was to answer two main questions:

1. Is the district operational, and
2. Is the district actively engaged in achieving stated goals, objectives, and performance standards?

Without a doubt, the South Plains Underground Water Conservation District is operational and is achieving its stated goals, objectives, and standards. That is not to say, however, that there is no room for improvement.

The following are recommendations where the District could improve its service:

<b>Management Objective</b>	<b>Recommendation</b>
<b>1.02—Technical Field Services</b>	
<b>1.03—Laboratory Services</b>	
<b>1.04—Research and Demonstration</b>	
<b>1.05—Center Pivot Inventories</b>	
<b>2.01—Well Permitting and Completion</b>	1. Use permit fees for administrative costs associated the District’s issuance of well permits
<b>2.02—Open or Uncovered Wells</b>	
<b>2.03—Maximum Allowable Production</b>	
<b>2.04—Water Quality Monitoring</b>	1. Purchase new instruments to ensure accurate results.
<b>3.01—Classroom Education</b>	1. Periodically purchase conservation software and books for area schools
<b>3.02—Newsletter</b>	
<b>3.03—News Releases</b>	
<b>3.04—Public Speaking Engagements</b>	
<b>3.05—Printed Material Resource Center and Technical File</b>	
<b>4.01—Rain Gages</b>	
<b>5.01—Saturated thickness Maps</b>	

## **Additional Recommendations**

The District also recognizes the importance of improving the data which is used when making management decisions. A better understanding of the groundwater resource provides the Board a sound basis for goal development.

As a result, the staff suggests the Board consider the following as long range goals:

**1. Automatic water level recorder**

This enables continuous monitoring of water table fluctuations which occur throughout the year.

**2. Rain gages with automatic recorders**

The current rain gages in use record rainfall which is measured by the staff at monthly intervals. Automated rain gages allow the retrieval of rainfall from selected events. Additionally, this information may be accessed remotely.

**3. Weather station**

A weather station using real-time reporting collects weather data which may be published via the District's web site.

**4. Soil moisture monitoring equipment**

The effects of rainfall events are not well understood as they may cause runoff or escape beneath the plant root zone. Movement of soil water beneath this zone will eventually serve as groundwater recharge. Observation of deep soil water movement may increase our understanding of groundwater recharge rates.