

**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 2005

September 1, 2004 through August 31, 2005

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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, 75th 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 2005 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 2005, 139 wells were measured. This compares to 139 wells in 2004. A report of the change in water levels was presented at the South Plains Ag Conference in February. Also, a list of water level measurements was included in the August edition of the District's newsletter.

Performance Standards

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

1.01b—N/A—all were measured

1.01c—139 water level measurements entered into database

1.01d—139 wells in network

1.01e—There were no new wells added in 2005

Management Objective 1.02—Technical Field Services

100 requests for Technical Field Services were fulfilled in 2005. This is 1 more than the 99 requests in 2004. June was the busiest month for flow tests, when 29 tests were performed.

A number of tests were made for prospective land buyers.

Performance Standards

1.02a—99 field service requests were fulfilled

1.02b—114 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 2005 was 64. This is lower than the 71 tests run in 2004.

Also, 29 bacteria tests were run in 2005, compared to 14 in 2004. Fourteen of the tests were positive for either coliform or e-coli bacteria.

Performance Standards

1.03a—93 lab service requests were fulfilled

1.03b—181 records entered in database. Some of the results were from previous years.

1.03c—93 results were reported to constituents. There were four tests performed for wells not located in the district.

Management Objective 1.04—Research and Demonstration

The District participated in one research study during FY 2005. This study was funded by the TCEQ and was conducted by the Bureau of Economic Geology. The investigation concerned occurrences of arsenic in groundwater. District staff assisted the research team by selecting 4 sampling locations that fit the study criteria. These locations included one dry land site, one playa, and two irrigated

sites. Additionally, the District gathered information from each landowner regarding land use and irrigation history. The final report is due this fall.

Performance Standards

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

1.04b—A record of this opportunity was noted in minutes

Management Objective 1.05—Center Pivot Inventory

No center pivot inventory was required in 2005 by the District’s Management Plan.

Performance Standards

1.05a—N/A

1.05b—N/A

1.05c—1,428 pivots, 42 side rolls, 3 row water, and 3 drip 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 1,681 permits. The number of permits issued during 2005 was 94. This is lower than the 128 issued in 2004. March had the highest number of permits issued, which was 20.

Also, 140 wells were inspected during 2005.

Performance Standards

2.01a—94 permits issued

2.01b—140 well sites inspected

2.01c—11 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

Fourteen open, deteriorated or uncovered wells were reported to or discovered by District staff during 2005. Twelve wells have been corrected at this time.

Performance Standards

2.02a—14 open, deteriorated or uncovered wells reported to the District

2.02b—14 initial inspections accomplished

2.02c—Initial contact with landowner made in approximately 2 days

2.02d—The average time to be corrected was 35 days

2.02e—12 were corrected (86%). The remaining 2 are allotted time that extends into FY 2006.

Management Objective 2.03—Maximum Allowable Production

There was one report of suspected maximum allowable production violation during 2005. This was discovered by District staff during a requested flow test.

Performance Standards

2.03a—One report to investigate

2.03b—Report was made at time of investigation

2.03c—Operator was required to reduce sprinkler package to meet allowable production limit.

Management Objective 2.04—Water Quality Monitoring

Water quality samples were obtained during the summer of 2005. These were taken from the District’s established network of wells. Some wells that were sampled in 2004 were not sampled in 2005 because they were not in operation. Also, the 2004 water quality map was posted for viewing and printing on the District’s web site.

Performance Standards

2.04a—95 samples collected and analyzed

2.04b—97% of samples analyzed in 2004 were analyzed in 2005

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

2.04d— 95 test results were entered in database

Goal 3.0

Public Education and Information

Management Objective 3.01—Classroom Education

During 2005, the District continued its 2 educational programs, which consist of book covers and the *Major Rivers* curriculum. This year, the District also distributed two DVDs, produced by the Texas Parks & Wildlife, to the three area high schools. The District also sponsored a natural resources panel for the Hamilton Park. Area realtors continue to contact the District office for information to help them understand the water situation on properties.

Performance Standards

3.01a—*Major Rivers* was distributed to eight 4th 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 2005. The August 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—3917 newsletters were distributed

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

Management Objective 3.03—News Releases

Nine news articles were published in the *Brownfield News* during 2005. 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, 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—Nine news releases were prepared for publication in the local newspaper

Management Objective 3.04—Public Speaking Engagements

The District fulfilled 4 public speaking engagements during 2005. These included:

- Update on water levels and water quality at the 2005 South Plains Ag Conference
- Presentations to one civic group—Brownfield Lions Club in June.
- A technical paper was presented at the High Plains Groundwater Symposium in Lubbock in January.
- One presentation was made to area school children at Kids, Kows & More in October.

Performance Standard

3.04—Four programs were presented to protect and enhance our groundwater

Management Objective 3.05—Printed Material Resource Center and Technical File

Thirty-six-(36) 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.

63 items were distributed from the resources center. 10 of these items were related to irrigation water quality.

Performance Standards

3.05a—There were 3 items on conservation, 12 on rules, 16 on permitting, 16 on water quality and 16 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 33 rain gages. The readings from the rain gages are gathered monthly and rainfall maps are published on the District’s web site. District staff notifies the local newspaper when new rainfall maps are published.

Performance Standards

4.01a—33 rain gages in District network. 3 new sites were added this year.

4.01b—370 monthly rain gage readings of 378 taken

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

Management Objective 5.01—Saturated Thickness Maps

The District developed a 2005 Saturated Thickness Map. The map was published to the web site and displayed in the office beginning August 2005.

Performance Standards

5.01a—There are currently 3 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—3 items were obtained by the public in 2005

SPUWCD WEATHER MODIFICATION PROGRAM

The District was involved in the Southern Ogallala Aquifer Rainfall Enhancement (SOAR) program during 2005. This was the eighth 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 11.43 inches April through August, compared to 12.54 inches for the same period last year. The District spent \$24,000 during the 2005 program, the same as in 2004.

IRS COST-IN-WATER DEPLETION PROGRAM

2005 was the sixth 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 75 landowner requests were processed, including 6 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.

FLOWMETER PROGRAM

2005 marks the fourth year for the District's Flowmeter Program. With the help of approximately 50 cooperators, the District reads flow meters each month during the growing season to determine water usage on various crops. Water usage for 2005 will be calculated at the end of the growing season. The following table contains a summary of irrigation water applied during previous years.

	<u>Cotton</u>	<u>Peanuts</u>	<u>Grain</u>	<u>Wheat</u>
2002	8.44 in.	19.35 in.	6.0 in.	7.0 in.
2003	10.79 in.	19.85 in.	5.3 in.	5.87 in.
2004	7.99 in.	14.46 in.	0.49 in.	6.25 in.

SORGA

The Southern Ogallala Regional Groundwater Alliance (SORGA) was formed in April 2004 between the seven groundwater conservation districts of Groundwater Management Area #2. The Alliance provides a framework for joint studies and other projects benefiting a significant portion of the southern Ogallala aquifer.

In 2005 the members of SORGA met 3 times at various district offices. They also sponsored a booth at the High Plains Groundwater Symposium in Lubbock during January.

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. The lobbyist team included Mike Toomey and Sabrina Brown.

The District, as requested by TAGD, continues 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. In 2005, Jason Coleman attended 2 NRCS State Technical Committee meetings and gave a report to the membership of TAGD.

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:

Management Objective	Recommendation
1.02—Technical Field Services	
1.03—Laboratory Services	
1.04—Research and Demonstration	
1.05—Center Pivot Inventories	
2.01—Well Permitting and Completion	
2.02—Open or Uncovered Wells	
2.03—Maximum Allowable Production	
2.04—Water Quality Monitoring	1. Purchase new instruments to ensure accurate results.
3.01—Classroom Education	
3.02—Newsletter	
3.03—News Releases	

3.04—Public Speaking Engagements

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

4.01—Rain Gages

5.01—Saturated thickness Maps

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