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Key Points of Report

An Audit Report on Groundwater Conservation Districts

Phase One

August 2000

Overall Conclusion

Of the nine local groundwater conservation districts (districts) audited, six are operational. By implementing their management plans, these districts are making good-faith efforts to conserve and protect the groundwater they administer. However, two of the districts are not operational. The State has no assurances that these two districts appropriately manage their groundwater. The last district's status could not be determined because its two objectives are not auditable.

Sixty-one percent of total statewide water used comes from groundwater. Most of this groundwater is administered by the 63 districts currently established in the State. The State Auditor's Office, the Water Development Board, and the Natural Resource Conservation Commission provide limited oversight of districts as mandated in Texas Water Code, Chapter 36. Local districts are the State's preferred method of groundwater management. Like the districts themselves, their management plans are unique. We have assessed only the implementation, not the quality of these plans.

Key Facts and Findings

- The six operational districts are Barton Springs/Edwards Aquifer Conservation District, Headwaters Underground Water Conservation District (UWCD), High Plains UWCD, Irion County Water Conservation District (WCD), Lipan-Kickapoo WCD, and Mesa UWCD. These districts are also in full or partial compliance with audited statutory requirements.
- The two non-operational districts are Hudspeth County Underground Water District and Live Oak UWCD. These districts are also not in compliance with one or more of the audited statutory requirements.
- We could not determine whether the final district, Sterling County UWCD, is operational. We did note that the district is not in compliance with one of the statutory requirements audited.
- Across districts, the main areas of noncompliance or partial compliance with statute are development of certain policies and budget components.
- Two of the nine districts' management plans lack goals or objectives to manage the majority of their programs or activities.

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This audit was conducted in accordance with Texas Water Code, Sections 36.302 and 36.061.

Executive Summary

Six of the Nine Districts Are Actively Engaged in Achieving the Objectives of Their Management Plans

Six of the nine districts audited are operational, which means they are making good-faith efforts to achieve the goals and objectives of their management plans. The activities of these districts provide some assurance that the groundwater they administer is being conserved, preserved, and protected. These six districts are as follows:

- Barton Springs/Edwards Aquifer Conservation District
- Headwaters Underground Water Conservation District (UWCD)
- High Plains UWCD
- Irion County Water Conservation District (WCD)
- Lipan-Kickapoo WCD
- Mesa UWCD

In the time since the certification of these districts' management plans, they have either achieved or made worthy progress on most of the objectives audited.

Two of the nine districts audited are not operational. Overall, we find that their activities do not indicate good-faith efforts to achieve all of the objectives of their management plans, although, to their credit, each has achieved at least one or two of their objectives. The two non-operational districts are as follows:

- Hudspeth County Underground Water District
- Live Oak UWCD

The State has no assurances that these two districts are appropriately managing their groundwater.

We could not determine if Sterling County UWCD is operational. The District has only two objectives in its management plan, and the nature of the objectives prevented assessment.

Each district's management plan goals and objectives are unique. They reflect differences in issues and concerns of districts administering different aquifer segments across the State. However, we noted that two districts' management plans do not align with their actual activities or programs. These two districts are as follows:

- Lipan-Kickapoo WCD
- Sterling County UWCD

We believe that these districts will find their management plans to be more useful internal management tools if they have goals and objectives to address all of their major activities or programs.

Districts Compliance With Basic Statutory Requirements

In addition to auditing the districts' management plan activities, we also audited the nine districts' compliance with several basic statutory requirements in the Texas Water Code, Chapter 36.

Two of the six operational districts have fully complied with all statutory requirements audited:

- Barton Springs/Edwards Aquifer Conservation District
- High Plains UWCD

Executive Summary, continued

The other four operational districts were in full compliance with some and in partial compliance with all other statutory requirements audited:

- Headwaters UWCD
- Irion County WCD
- Lipan-Kickapoo WCD
- Mesa UWCD

The two non-operational districts and the district whose status could not be determined did not comply with one or more of the statutory requirements audited:

- Hudspeth County Underground Water District
- Live Oak UWCD
- Sterling County UWCD

For two of the six statutory requirements audited, fewer than half of the districts were in full compliance. One requirement is that districts develop an annual budget containing certain components. Only Barton Springs/Edward Aquifer Conservation District and High Plains UWCD were in full compliance with this requirement. The six other districts in partial compliance have annual budgets, but the budgets did not contain all of the required components. The remaining district, Hudspeth Underground Water District does not develop or use a budget.

The second requirement with which fewer than half the districts audited fully complied is for development of certain policies and

procedures. Two districts were in partial compliance with this requirement. Headwaters UWCD and Irion County WCD had developed some, but not all of the required policies and procedures. Three more districts had not developed any of the required policies: Hudspeth Underground Water District, Live Oak UWCD, and Sterling County UWCD.

Summary of Management Responses

Management responses to our assessments are generally favorable. Live Oak UWCD and Hudspeth County Underground Water District, however, disagree with our assessment of their districts as not operational. High Plains UWCD agreed with our assessment but elected not to submit a formal response.

Summary of Objectives

The primary objective of the audit was to determine whether the nine groundwater districts reviewed are operational, based on their activities under their unique management plans. A secondary objective was to determine whether the districts comply with certain statutory requirements established in Texas Water Code, Chapter 36, for groundwater districts.

Audits of groundwater conservation districts are required by Texas Water Code, Chapter 36, Section 302.

Six of the Nine Districts Are Actively Engaged in Achieving the Objectives of Their Management Plans

Six of the nine districts audited are operational, which means they are actively engaged in achieving the objectives of their management plans. Our expectation for management plans is that they be useful internal tools with challenging goals and objectives unique to the individual districts' concerns and resources. For this reason, we find these districts to be operational, even though some did not fully achieve all of their objectives during the period audited. Six districts achieved all of the objectives we audited or made good-faith efforts to achieve them:

What is a management plan, and why is it important?

Good business practice suggests that organizations should actively manage their operations.

A management plan is a tool for strategic planning and management of operations. Through use of a management plan, a groundwater district can specify the nature of the services it provides or intends to provide. Targets in a management plan provide a basis for measuring a district's success.

Texas Water Code, Chapter 36, requires groundwater conservation districts to develop management plans. This requirement is not meant to be a burden. A successful management plan illustrates the unique issues and concerns facing a district. It shows what steps the district is taking to address those concerns and to protect and manage groundwater.

- Barton Springs/Edwards Aquifer Conservation District
- Headwaters Underground Water Conservation District (UWCD)
- High Plains UWCD
- Irion County Water Conservation District (WCD)
- Lipan-Kickapoo WCD
- Mesa UWCD

Two of the nine districts audited are not operational. Although both of these districts did fully or partially achieve some of their objectives, they did not achieve other objectives. On the whole, the Hudspeth County Underground Water District and Live Oak UWCD have not made good-faith efforts to achieve all of the objectives of their management plans.

The last of the nine districts, Sterling County UWCD, could not be audited for achievement of its objectives because of the nature of those objectives. For this reason, the district may be subject to audit in the next five years.¹

Appendix 3 contains information on the characteristics and activities of each audited district.

¹ Ordinarily, under Texas Water Code, Chapter 36 requirements, districts are subject to audit by the State Auditor's Office within one to five years of the one-year anniversary of their management plan certification and only every five years thereafter.

Table 1

Summary of Audit Results by District and Objective							
District	Objectives						
	Total	Audited	Fully Achieved	Partially Achieved	Not Achieved	Could Not Be Determined	Not Applicable
Barton Springs/Edwards Aquifer Conservation District	23	8	8	0	0	0	0
Headwaters UWCD	9	7	4	2	0	0	1
High Plains UWCD	20	11	11	0	0	0	0
Hudspeth UWD	6	6	1	0	3	2	0
Irion County WCD	12	8	8	0	0	0	0
Lipan-Kickapoo WCD	13	8	7	1	0	0	0
Live Oak UWCD	3	3	1	1	1	0	0
Mesa UWCD	28	13	13	0	0	0	0
Sterling County UWCD	2	2	0	0	0	2	0

Section 1-A:

Two of the Districts Are Not Using Their Management Plans to Administer the Bulk of Their Operations

The Sterling County UWCD and Lipan-Kickapoo WCD have management plans that do not comprehensively address their respective operations. Although both districts’ plans meet statutory requirements for administrative completeness as described in Texas Water Code, Sections 36.1071 and 36.1072, Sterling County UWCD’s management plan addresses few of its actual programs and activities. The Lipan-Kickapoo WCD has a detailed action plan separate from the mandated management plan. The bulk of Lipan-Kickapoo WCD’s operations are administered through this action plan.

The lack of alignment between these two districts’ required management plans and their day-to-day operations does not mean that the districts are neglecting the groundwater resource. In fact we found the Lipan-Kickapoo WCD to be actively engaged in achieving the objectives of both its management plan and its action plan. Although Sterling’s plan could not be audited, we noted that the District has a number of activities to manage the groundwater it administers.

However, the lack of alignment does make the plans less useful management tools. It also suggests that these two districts, in particular, are less than enthusiastic about state oversight of groundwater districts. Indeed, identical text in the management plans of Sterling County UWCD and Lipan-Kickapoo WCD notes, “The greatest threat to prevent the District from achieving the stated mission is from state mandates and agency bureaucrats who have no understanding of local conditions.”

The State Auditor’s Office recognizes that groundwater conservation districts across the State have different issues and concerns as well as different resources. Accordingly, we expect districts’ management plans to differ from one another.

However, no matter what the unique concerns and related activities and programs of a district, good management practices indicate that its management plan should fully reflect those activities and programs.

We encourage all groundwater districts, especially the Sterling County UWCD and Lipan-Kickapoo WCD, to consider including in their management plans goals and objectives that address all major activities and programs. Not only will this action better satisfy the statutory requirement for “comprehensive” management plans, it will also greatly benefit the districts by making their plans more useful internal management tools.

Section 1-B:

The Barton Springs/Edwards Aquifer Conservation District Is Operational

Based on an audit of 8 of the Barton Springs/Edwards Aquifer Conservation District's (District) 23 objectives, the District is operational. For the period reviewed, the District fully accomplished all 8 objectives audited. Details on the individual objectives audited are shown in Table 2. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 2

Barton Springs/Edwards Aquifer Conservation District Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Water Well Program Goal: Manage the groundwater resources within the Barton Springs/Edwards Aquifer Conservation District.		
Each year, maintain a water well program to help conserve and protect the groundwater in the Barton Springs segment of the Edwards Aquifer.	Yes	The District inspected each of the 33 new wells drilled in the District in fiscal year 1999, taking water quality samples at all but 2 of them. There are currently 106 permitted water users in the District; they include entities such as public water suppliers, gas stations, car washes, and schools. The District monitors well pump data on a monthly basis for each permitted user and inspects more than 20 percent of them each year.
Education/Public Outreach Program Goal: Initiate, develop and promote activities and relationships that will enhance an understanding of the aquifer and the District s programs. Develop, organize and distribute educational and informational material designed to inform area residents, government officials, students and the media about District activities, the geology and hydrology of the Barton Springs segment of the Edwards Aquifer, principles of water conservation, water management, pollution mitigation, and other issues involving groundwater resources.		
Each year, maintain and develop programs to educate, inform, and update local citizens about water-related matters of local, state and national importance using available media.	Yes	Since January 1999, the District has published a tri-yearly newsletter, the <i>Aquifer Bulletin</i> , and regular press releases on water issues such as drought and lawn watering schedules or District activities such as its conservation awards or dye trace study. The District maintains a library at its headquarters and a website at www.bseacd.org that contain information about water. The District has also produced and distributed a secondary school curriculum package (on the Barton Springs segment of the Edwards Aquifer) containing an interactive CD-ROM, wall maps for the classroom, and the seven-segment curriculum.

Barton Springs/Edwards Aquifer Conservation District Achievement of Management Plan Objectives		
Objective	Achievement	Auditor's Comment
Each year recognize individuals, private corporations, or public organizations who contribute to the District's efforts by promoting conservation through their initiative [and] innovation to reduce consumptive uses, eliminate waste, or provide aquifer protection.	Yes	The District presents conservation awards in five categories: Water Conservation, Water Quality Protection, Education, Research, and Innovation. Nine winners were selected in the various categories in 1999. The District is currently soliciting nominations for the 2000 conservation awards.
Water Quality Protection Goal: Collect, analyze and provide information on groundwater quality conditions, and develop and implement programs designed to monitor, prevent, and mitigate pollution of the groundwater within the Barton Springs segment of the Edwards Aquifer.		
Develop and evaluate strategies for notification, response, abatement, and remediation in the event of an emergency situation that threatens the water quality of the Barton Springs Segment of the Edwards Aquifer.	Yes	The District has compiled a list of parties to contact in the event of a spill. The District maintains a spill response kit that contains a respirator and various hazard detection kits. Also, one District staff member is trained and certified in spill response.
Water Quantity Goal: Develop, evaluate, and implement management strategies that will protect and enhance the quantity of water in the Barton Springs segment of the Edwards Aquifer. Gather geologic and socioeconomic information pertaining to the use and the quantity of water in the aquifer that will allow the public, District staff, and elected officials to make more informed decisions on issues involving groundwater resources.		
Each year, monitor groundwater levels in at least 5 wells in the Barton Springs segment of the Edwards Aquifer to describe water level changes, groundwater flow, recharge/discharge relationships and available water for storage/yield to make drought determinations from selected monitor wells.	Yes	The District maintains a network of five primary and four secondary wells for measuring water levels. District staff members measure the wells regularly to recognize and monitor drought conditions. The district declared a stage 1 drought ² in August of 1999. With the District in a declared drought, staff members check the monitor wells at least twice a month. They check water level changes, yield, and recharge in the monitor wells.

² Decline in water levels in the monitor wells trigger stage 1 ("alert"), 2 ("alarm"), or 3 ("critical") drought status. The District requires its permittees to reduce usage by 10 percent, 20 percent, or 30 percent according to the severity of the drought.

Barton Springs/Edwards Aquifer Conservation District Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Grants Program Goal: Identify, make application for, and receive grant funding in order to support District program.		
Each year, identify and determine opportunities to obtain grant funds to support District groundwater research programs in water quality and quantity.	Yes	The District currently administers two grants. One is for a dye tracing study to determine groundwater flow. The other is for a hydrological and water quality assessment. Each year the District pursues opportunities to obtain grant funds to support and enhance District activities.
Each year, administer existing grants in accordance with their contract requirements.	Yes	The District is currently the recipient of two grants from the Natural Resource Conservation Commission (Commission). Once a quarter the District submits both a financial and a technical report to the Commission. These reports detail the District s compliance with the technical and financial grant requirements.
Legislative Programs Goal: Monitor pending State Legislation or agency rules, provide testimony to legislators or agencies, and inform area residents and public officials about its (legislation or rules) implications. Work with legislators and agencies to introduce and support legislation or rules that complement or enhance District interests on issues involving groundwater resources.		
Monitor Legislative activities, encourage or develop legislation favorable to District programs, and work to suppress legislation which may adversely impact the District, its residents or programs.	Yes	During the 76th Legislature, the District monitored the progress of bills it felt might affect the District. District representatives also met with members of The House of Representatives from the District area to discuss issues and concerns of the District in regard to the session.

Section 1-C:

The Headwaters Underground Water Conservation District Is Operational

Based on an audit of seven of the Headwaters UWCD’s (District) nine objectives, the District is operational. For the period audited, the District fully accomplished four of the six applicable objectives.³ The District partially met another two objectives. The final objective was not applicable for the period audited. Details on the individual objectives audited are shown in Table 3. The objectives are organized according to the District’s overall goals, which are shown in bold.

Table 3

Headwaters UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor Comment
Efficient Use Goal: Provide for Most Efficient Use of Groundwater.		
Develop a drought and a conservation plan for the District by 9/01/01.	Partial	Although its target date is more than a year away, the District has already begun drafting and revising a plan and has held at least two public meetings to take comments on the plan.
Implement a program to improve the understanding of usable groundwater supplies in the District by 12/01/99.	Yes	The District tests a set of monitor wells for water quality one to four times a year and for water levels on a monthly basis to increase its understanding of groundwater supplies in the District.
Provide for a regular review of the District Rules by 6/12/00.	Partial	At the time of the audit, the District had begun revising its rules for the target completion date of June 12, 2000. The District has also determined to revisit its rules biannually thereafter.
Waste Prevention Goal: Control and Prevent Waste of Groundwater.		
Identify two wasteful water practices in Kerr County each year.	Yes	The District has identified two wasteful water practices each year since 1998; examples include afternoon lawn watering and water waste at construction sites.
Conjunctive Water Management Goal: Address Conjunctive Surface Water Management Issues.		
Have the District board meet each year with representatives of the City of Kerrville and UGRA (Upper Guadalupe River Authority) at least once to discuss the most efficient conjunctive use of the water resources within the district.	Yes	The District Board has met with City of Kerrville representatives and Upper Guadalupe River Authority representatives at least once a year for the past three years. Items discussed include water availability and reuse, wastewater issues, and drought planning.

³ One objective had a target date several years in the future. We find it reasonable that the District has not yet begun work on this objective, considering it not applicable at this time.

Headwaters UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor Comment
Submit a grant request by 12/31/99 for the preparation of a ground/surface water modeling program for the District.	Yes	The District submitted a grant proposal to the Lower Colorado River Authority Community Development Partnership Program in December 1999.
Natural Resources Goal: Address Natural Resource Issues, Which Are Impacted by the Use of Groundwater in the District.		
Implement a program to monitor 2 major springs for common water quality indicators and spring flow each year after 1/01/04.	N/A	The District has not yet begun preparation for this activity, given its distant target date.

Section 1-D:

The High Plains Underground Water Conservation District Is Operational

Based on an audit of 11 of the High Plains UWCD's (District) 20 objectives, the District is operational. For the period audited, the District fully accomplished all 11 audited objectives. Details on the individual objectives audited are shown in Table 4. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 4

High Plains UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor's Comment
Protect and Enhance the Quality of Usable Quality Groundwater Goal:		
Implement Management Strategies to Protect and Enhance the Quantity of Usable Quality Groundwater by Encouraging the Most Efficient Use.		
Continue annual water level monitoring program 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.	Yes	The District measures between 94 and 97 percent of the approximately 1,200 wells in its monitoring network each year. Staff members tag the wells with the new level measurements and enter them into a database of historic well levels. The District publishes statistics and trends about water levels in the April edition of <i>The Cross Section</i> , and prepares depth-to-water income tax depletion allowance figures for the Internal Revenue Service.
Continue to issue well permits for drilling of all non-exempt water wells according to district spacing rules.	Yes	The District issued 704 well drilling permits in 1999. Initially, District staff members review drilling permit applications to ensure that spacing requirements are met. If they have a concern about the spacing or compliance with other district rules, staff members write the applicant for additional information or to instruct the applicant to make specific changes to meet requirements for compliance. The District sent 307 such letters in 1999. In 53 cases, lingering doubt prompted a staff member visit to the well site.
Continue the pre-plant soil moisture monitoring program so that irrigators can determine how much water they need to apply to their fields prior to planting their crops.	Yes	District staff members take soil moisture readings in the winter each year at approximately 300 monitor sites. Readings are entered into a database, which is used to produce contour maps that show soil moisture and moisture deficit. Landowners of monitor sites are sent copies of their soil moisture profiles and contour maps of their county. The contour maps are also published in the District newsletter, <i>The Cross Section</i> .

High Plains UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Quality Protection and Waste Prevention Goal:		
To continue to implement programs to protect the quality of the aquifer and to control and prevent the waste of groundwater.		
Provide fecal coliform bacteria testing service to residents of the district at their request.	Yes	The District performed 70 well tests on 65 unique wells in 1999. If a landowner s well tested positive for contamination, the District advised the owner of sanitation measures to take. In all instances but one, ⁴ the District re-tested wells after sanitation with negative results for contamination.
Assure proper closing, destruction, or re-equipping under district rules of abandoned or replaced wells. ⁵	Yes	Abandoned wells are generally identified during the District s permitting process. District staff technicians perform site visits to all abandoned wells to ensure that they are appropriately destroyed, capped, or re-equipped.
Enforce the district s rule on the closing of open or uncovered wells. ⁶	Yes	On an annually rotating basis, the District performs drive-out inspections of all wells in the District. Through these inspections or through field checks on permit applications, the District identified 31 open or deteriorating wells in 1999. The District notified landowners of steps to take to close or destroy these wells and conducted follow-up visits to the well sites to make sure the wells had been closed or destroyed.
Public Information/Education Goal:		
Continue to implement management strategies that provide public information and education opportunities.		
Produce a monthly newsletter containing articles on enhancing and protecting the quantity of usable quality groundwater in the District.	Yes	The District publishes a monthly newsletter, <i>The Cross Section</i> , which contains articles on conservation and protection of groundwater. The newsletter is available on the District website and at its headquarters. It has a monthly mailing list of more than 6,700 local, state, national, and international destinations.
Continue to maintain public information boards at the District Office.	Yes	The District maintains at its headquarters many brochures, technical reports, and other publications, most of which are supplied to the public at no cost. Available information includes copies of the District s newsletter, <i>The Cross Section</i> ; hydrological atlases for each county; pamphlets on water conservation and quality; and instructions for well permit applications.

⁴ One landowner whose well tested positive for contamination late in the year has not yet allowed the District to return and re-test the contaminated well.

⁵ Abandoned wells are those that a landowner no longer intends to use. A landowner generally abandons a well with intent to drill a new, replacement well.

⁶ An open or deteriorating well is a safety hazard. Two children have fallen into open wells in the District since its creation in 1951.

High Plains UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Continue to design public information displays for use at fairs or meetings.	Yes	The District maintains a group of display boards on water conservation and waste prevention such as its displays "What do You Know About H ₂ O?" and "Irrigation Efficiency." District staff reports providing these displays for use on 11 occasions in 1999.
Continue to provide information via the internet web site.	Yes	The District s website, www.hpwd.com , contains information on most District programs and activities, as well as water conservation tips, links to other water-related websites, and copies of the District newsletter. The website was accessed almost 140,000 times in 1998 and 1999.
Continue to sponsor classroom education programs.	Yes	The District sponsors a "Learning to be Water Wise" program in elementary, intermediate, and junior high schools each year. In the 1998-1999 school year, seven district schools with nearly 800 students participated. As part of this program, the District distributed home water kits containing high-efficiency faucets and shower heads as well as other water conservation tips and tools.

Section 1-E:

The Hudspeth County Underground Water District Is Not Operational

Based on an audit of all six of the Hudspeth County Underground Water District's (District) objectives, the District is not operational. Overall, we did not find that the District had made good-faith efforts to achieve all of its objectives. The District has fully achieved only one of its six objectives since the certification of its management plan. It has not acted on three of its other objectives. No determination could be made on whether the District had achieved the final two objectives. Details on the individual objectives audited are shown in Table 5. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 5

Hudspeth UWD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Efficient Use Goal:		
Providing the Most Efficient Use of Groundwater.		
Annually the District will check on the level of the water table by measuring all designated observation wells in order to verify water levels and identify any long-term trends that may be developing.	No	Designated observation wells in the District are established and measured by the Water Development Board with no assistance from District personnel.
Annually prepare a report to be published in the <i>Hudspeth County Herald</i> about the static water table and any trends that may be developing.	No	The District has not published a report.
Insure that all By-laws of the District are properly enforced.	Could Not Be Determined	According to District representatives, no violations of by-laws have been identified since the management plan took effect in October 1998.
Waste Prevention Goal:		
Control and Prevent the waste of groundwater.		
The District will annually inform District water users on the efficient use of water with a published article in the local newspaper.	No	The District has not published any articles.
Natural Resources Goal:		
Address natural resource issues.		
Annually the District will work with the public on all requests for additional use of groundwater.	Could Not Be Determined	According to District representatives, there have been no requests for new wells to be drilled or for water to be transported out of the District since the management plan took effect in October 1998.

Hudspeth UWD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Annually ensure that all PL-566 Watersheds and groundwater recharge projects are in proper working condition.	Yes	These projects are under federal jurisdiction. In 1999 a District Board Member assisted the federal inspector checking the four watersheds and 13 injection wells within the District s jurisdiction.

Section 1-F:

The Irion County Water Conservation District Is Operational

Based on an audit of 8 of the Irion County WCD's (District) 12 objectives, the District is operational. For the period audited, the District fully accomplished all 8 of the objectives audited. Details on the individual objectives audited are shown in Table 6. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 6

Irion WCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Efficient Use Goal: Provide for the efficient use of groundwater.		
Provide, upon request information on water conservation practices for the efficient use of waste. In addition, publish an article on efficient water use and availability of information materials each year.	Yes	In 1999 the District published two articles, <i>Water Conservation and Avoiding Waste</i> and <i>Groundwater Quality Analyses</i> , each in two local publications, <i>The Irion County Agricultural News</i> and <i>The Irion County Newsletter</i> . The District reports that no additional information was requested.
Collect a water sample for partial chemical analysis from each new well drilled within the District to establish well locations and a baseline for water quality data.	Yes	When possible, the District performs water analyses and produces reports on newly drilled wells. Since early 1998, district constituents have drilled five wells. The District has obtained and tested samples from two of the wells. The District reported that samples from the other three wells were unobtainable, as those wells were not equipped with pumps.
Monitor selected wells for contamination by collecting samples for selected chemical and biological parameter analysis.	Yes	The District took a total of 143 water samples from 58 wells in the district in fiscal year 1999. The District tests well samples for chlorides, and often, alkalinity, hardness, pH, and total dissolved solids.
Monitor water levels in selected wells within the district.	Yes	The District maintains an observation well network of approximately 10 wells. The District measures these wells each year to note any trends in water levels.
Waste Prevention Goal: Control and prevent the waste of groundwater.		
Cooperate with schools to provide information and programs on water conservation practices, water quality analysis, or other water issues when requested. Contact school officials each year to inform them of district resources available.	Yes	The District spreads word of its resources to school officials largely through personal contacts. Last year, the District worked with schools by request on two occasions. In one instance, the District hosted an Aquatic Science Class at the District s lab for a demonstration of water quality analysis. In another instance, staff members assisted a student in the District with a science fair project.

Irion WCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Natural Resources Goal: Address natural resource issues impacting groundwater.		
Continue biannually to monitor all selected chemical and biological parameters for assessing water quality of the springs, creeks, and rivers within the District for possible contamination by collecting water samples for analysis.	Yes	The District collects water samples twice a year from several locations on Spring Creek for analysis. It also collects samples from Dove Creek for analysis. The samples are tested for alkalinity, hardness, pH, total dissolved solids, and both fecal and total coliform, among other things.
Continue to monitor the <i>San Angelo Standard Times</i> public/legal notices and the Irion County Clerk s Office for applications for fluid injection well permits.	Yes	The District staff regularly reviews the <i>San Angelo Standard Times</i> and the posting board at the County Clerk s Office. Through these reviews, the District has identified two notices of applications to the Railroad Commission for oil or gas disposal injection wells in the county in 1999. The District has identified one application notice (to date) in 2000.
Continue to determine whether new applications for fluid injection well permits pose any threat to the integrity of the groundwater or if the source of the water supply is of potable quality. File objections and/or requests for public hearings as applicable.	Yes	The District General Manager reviews new applications for injection wells. If a proposed well uses freshwater or potentially threatens groundwater, the application is reviewed by the Board of Directors. The Board of Directors has not found a formal objection or request for a public hearing to be necessary in the three most recent instances (in 1999 and 2000 as noted above) of injection well permit applications.

Section 1-G:

The Lipan-Kickapoo Water Conservation District Is Operational

Based on an audit of 8 of the Lipan-Kickapoo WCD's (District) 13 objectives,⁷ the District is operational. For the period audited, the District fully accomplished seven of its objectives and partially accomplished the remaining one. Details on the individual objectives audited are shown in Table 7. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 7

Lipan-Kickapoo WCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor's Comment
Efficient Use Goal (Management Plan): Provide for the efficient use of groundwater resources within the District.		
Each year the District will perform pivot irrigation flow tests to help the irrigators determine the amount of water being applied with each application.	Yes	The District performs both pivot and unique pump tests on demand. ⁸ It has tested a number of pivots and individual pumps each year since the certification of its management plan in September 1998.
Waste Prevention Goal (Management Plan): Control and prevent the waste of groundwater.		
Each year, identify wasteful practices within the District.	Yes	The District received four reports of water waste in 1999. In every case, the District met its objective of investigating the reported wasteful practices within two days.
Groundwater Monitoring Goal (Action Plan): Develop a groundwater monitoring system to improve the understanding of the aquifers and their hydrogeologic properties, as well as a quantification of resources necessary for prudent planning.		
In order to determine the overall rate of deterioration of the water quality within the District, annually sample 1/3 of the wells in the water quality monitoring network.	Yes	The District exceeded its goal in 1999, testing all 62 of the wells in its water quality monitoring network. Samples are tested for pH, alkalinity, total dissolved solids, hardness, chloride, nitrate and sulfate levels, and other characteristics.
Annually measure 90 percent of the wells in the water level monitoring network within the District.	Yes	The District exceeded its goal in 1999, increasing the number of wells in its monitoring network from 60 to 72 wells and measuring water levels in 100 percent of the wells in both the fall and the spring.

⁷ The Lipan-Kickapoo WCD operates under a management plan that contains 2 objectives and an action plan that contains 12 objectives. Two objectives are identical; therefore, there are 13 unique objectives. With the District's permission, we audited both its action plan and its management plan to present a true picture of the District's activities.

⁸ Pivot irrigation systems may draw on several individual pumps.

Lipan-Kickapoo WCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Information Collection Goal (Action Plan): Gather information necessary to assist in the achievement of the District s mission.		
Inventory and register the location of water wells within the District. Routinely locate and gather information on existing wells in the District and register any new wells drilled within the District.	Yes	The District maintains a database on wells that contains ownership information as well as information on location, use, and casing. The District inventoried and registered a total of 594 wells in fiscal year 1999, 131 of which were newly drilled wells.
Well Spacing Goal (Action Plan): Minimize the influence of the pumping of wells on the degradation of the aquifers by regulating the spacing of wells.		
Enforce the existing rules regulating the spacing of wells.	Yes	To regulate well spacing, the District collects information on well locations through permit applications and Global Positioning System technology. District annual reports indicate that all new wells drilled in the District in the past two years have met the District s spacing requirements.
Water Quality Goal (Action Plan): Minimize the potential for contamination of the groundwater by new or existing wells.		
Enforce rules for the drilling, completing, and equipping of water wells to insure that new wells are completed properly to protect the groundwater.	Partial	The District checks compliance by reviewing drillers logs submitted for newly drilled wells. It has filed a complaint against a driller who did not submit the log. District staff members also report inspecting select wells to ensure compliance, but we could not determine the extent of this activity.
Progress Tracking Goal (Action Plan): District tracking of progress towards achievement of action plan goals.		
District Manager will prepare and present an annual report to the Board of Directors on District performance in regards to achieving the action plan goals and objectives.	Yes	The District Manager prepares and presents to the Board an annual progress report for goals and objectives of the District s action plan as well as its management plan.

Section 1-H:

The Live Oak Underground Water Conservation District Is Not Operational

Based on an audit of all three of the Live Oak UWCD's (District) objectives, the District is not operational. Overall, the District did not have its activities adequately documented. Therefore, we could not establish that the District had made good-faith efforts to achieve all of its objectives. The District fully achieved one of its objectives, partially achieved another, and did not achieve the third. Details on the individual objectives audited are shown in Table 8. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 8

Live Oak UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Waste Prevention Goal: Collection and maintenance of data on water quantity and quality to help control and prevent waste.		
Measure water quantity and quality (1 well per year of each).	Yes	The District tests the water quality of 21 wells each year and measures the water levels of two wells each year.
Efficient Use Goal: Efficient use of groundwater.		
School education: distribute water resource education packet for use in the classroom (1 packet each year).	Partial	The District prepared an educational poster on weather modification but was unable to show occasions when it was distributed.
Conjunctive Water Issues Goal: Conjunctive water management issues.		
Coordinate an emergency response/drought contingency meeting with surface-water entities annually.	No	The District Board Chair is also a Board Member for the Nueces River Authority and participates in the regional water planning group. The District has had some coordination with other water authorities in the district, but not with regard to emergency response or drought contingency.

Section 1-I:

The Mesa Underground Water Conservation District Is Operational

Based on an audit of 13 of the Mesa UWCD's (District) 28 objectives, the District is operational. For the period audited, the District fully accomplished all 13 of the objectives. Details on the individual objectives audited are shown in Table 9. The objectives are organized according to the District's overall goals, which are shown in bold.

Table 9

Mesa UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Efficient Use Goal:		
Implement management strategies to protect and enhance the quantity of usable quality water by providing the most efficient use of groundwater.		
Disseminate educational information on conservation practices for efficient use of water resources four or more times a year.	Yes	The District shared informational brochures such as How to Save Water Inside the Home and Conserving Water in Irrigated Agriculture with school classes, a legislative committee, and a class of well drillers.
Waste Prevention Goal:		
Implement management maneuvers to control and prevent the waste of groundwater.		
Inventory, inspect and evaluate 50 percent of the new well sites each year to control and prevent pollution to the groundwater.	Yes	District staff members performed site visits to 77 of the 142 wells drilled in the District in fiscal year 1999, or 54 percent of these wells. District staff members determine which wells meet standards for proper completion. Only 3 of the 77 site visits revealed problems and resulted in letters to the owners and follow-up by the District.
Insure proper closure of 90 percent of the open or uncovered wells identified each year.	Yes	The District relies on constituents to identify and report open or uncovered wells. In 1999, only one open well was reported. At the owner s request, the District had the well capped and billed the owner.
Monitoring Systems Goal:		
Implement a monitoring system to improve the basic understanding of groundwater conditions in the District.		
Each year, measure 90 percent of a network of 123 monitor wells to determine the water level of the Ogallala aquifer annually.	Yes	The District maintains a monitoring network of 140 wells. Water levels in these wells are measured each January. The District publishes in the local newspaper a comparison of the well levels from the current and previous years.
Annually operate the water level monitoring program at an average cost to the district of less than \$100 per well.	Yes	The District is operating its water level monitoring program at a cost of \$6.44 per well.
Analyze all collected water quality samples of irrigation water annually.	Yes	The District performs four or five tests on water samples collected from irrigation wells. Samples are analyzed for pH, specific conductivity, electric conductivity, chlorides, and, for peanut farming, boron levels. The District reports that it tested between 200-250 wells or pivots in 1999.

Mesa UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Analyze all collected water quality samples for domestic wells annually.	Yes	The District tests water samples from domestic wells, checking pH, specific conductivity, chlorides, alkalinity, hardness, fluoride, iron, nitrates, sulfates, and total dissolved solids. The District reports that it tested 41 wells in 1999.
Analyze domestic well samples for Total Coliform and E-Coli annually.	Yes	The District also tests domestic wells for total coliform and e-coli. It reports that it performed bacterial tests in 1999 of the same 41 wells mentioned above.
Decline and Damage Protection Goal: Implement management strategies to protect the aquifer from extreme decline and damage resulting from over production.		
Consider establishing an Extreme Decline Study Area if two-year average water level triggers are met.	Yes	The District reviews water levels in its monitor wells to determine whether the District should be designated an Extreme Decline Study Area (EDSA). Recent well level measurements show that triggers have not been met, so no EDSA designation is currently necessary.
Oil Recycling Goal: Implement a program to protect the quality of the aquifer by collecting and recycling waste oil and used oil filters.		
Provide a network of six collection sites for do it yourself (DIY) oil change citizens to dispose of waste oil and used oil filters.	Yes	The District has established a network of 17 used oil and used oil filter collection centers. These centers are registered with the Natural Resource Conservation Commission for collection of used oil from the public.
Provide a curbside pick-up vehicle to collect waste oil from the large generators in the district.	Yes	The District collects used oil from the disposal sites it established for the public, as well as from many large generators such as service stations and farmers. Collected oil is transported to the District s oil center for processing and recycling. ⁹
Annually operate the waste oil and used oil filter collection and recycling program at a cost of less than \$.50 per gallon of oil collected.	Yes	The District operates the Waste Oil and Used Oil Filter Collection and Recycling Program at a cost of less than \$0.28 per gallon, transporting an average of 5,600 gallons each month to the oil center.
Legislative Activities Goal: Monitor Legislative activities and state agency rules and orders, which may affect private ownership of groundwater. Maintain local authority to manage groundwater.		
Annually join and participate as a full member of Texas Alliance of Groundwater Districts (TAG).	Yes	The District is currently a member of the TAG and has been for almost 10 years. The District General Manager is the current TAG vice-president.

⁹ The District crushes the used filters and sells them as scrap metal. The used oil is stored in the District's 5000-gallon tank and picked up regularly by a licensed recycler.

Section 1-J:

The Status of the Sterling County Underground Water Conservation District Could Not Be Determined

We could not determine if the Sterling County UWCD (District) is operational because of the nature of the District’s objectives. District activity in regard to its two management plan objectives depends largely upon constituent initiative. The District reported that there were no constituent reports or requests regarding its two objectives. Therefore, there was no management plan-related activity to audit. Because we found no District activity that addresses its management plan at this time, we may revisit it for audit within the next five years. Information on both of the District’s objectives is shown in Table 10. The objectives are organized according to the District’s overall goals, which are shown in bold.

Table 10

Sterling County UWCD Achievement of Management Plan Objectives		
Objective	Achievement	Auditor s Comment
Waste Prevention Goal: Control and prevent the waste of groundwater.		
Each year identify all wasteful practices within the district, when observed.	Could Not Be Determined	According to District representatives, no wasteful practices have been observed or reported since the management plan became effective in September 1998.
Efficient Use Goal: Provide for the efficient use of groundwater within the district.		
Each year the district will provide a recommendation per request, for each request on efficient use of ground water resources upon request [sic].	Could Not Be Determined	According to District representatives, no requests have been made for information on the efficient use of groundwater since the management plan became effective in September 1998.

Although we could not determine whether the District is operational, as defined by Texas Water Code, Chapter 36, we confirmed several District activities not administered through the management plan:

- Well level network – The District maintains an observation network of 21 wells, measuring water levels in these wells at least once a year.
- Well quality testing – The District takes water samples from constituents’ wells upon request. The samples may be tested for pH, conductivity, dissolved solids, alkalinity, hardness, chlorides, sulfates, nitrates, and/or coliform.
- Aquifer monitoring – The District has established a rain gauge network of 21 sites to monitor potential aquifer recharge.
- Weather modification – The District is a member of the West Texas Weather Modification Association. This group implements rainfall enhancement programs to promote aquifer recharge.

Districts' Compliance With Basic Statutory Requirements

Texas Water Code, Chapter 36, lays out certain requirements for all groundwater districts.

The following six requirements were audited, with results for each district shown in Table 11:

- Board Meetings – The Board of Directors (Board) is required to hold meetings at least once each quarter—Texas Water Code, Section 36.064.
- Notices and Minutes – The Board must give notice of meetings as set forth in the Open Meetings Act, Chapter 551, Government Code—Texas Water Code, Section 36.063. Also, the Board must keep a complete account of all its meetings and proceedings and preserve them in a safe place—Texas Water Code, Section 36.065.
- Annual Budget – The Board must prepare and approve an annual budget including specified components—Texas Water Code, Section 36.154.
- Annual Audit – The Board must have an annual audit made of the financial condition of the district—Texas Water Code, Section 36.153.
- Rules – The Board must adopt rules to implement the Texas Water Code, Chapter 36, including rules that drillers' logs be maintained and submitted to the district—Texas Water Code, Sections 36.101, 36.111, 36.112, and 36.113.
- Policies and Procedures – The Board must adopt certain specified policies in writing—Texas Water Code, Section 36.061.

Only two districts, the Barton Springs/Edwards Aquifer Conservation District and the High Plains Underground Water Conservation District, were in full compliance with all six statutory requirements audited. Four other districts were in full compliance with some and in partial compliance with the other statutory requirements audited. The six districts that were in full or partial compliance with the audited statutory requirements were the same six districts actively engaged in achieving the objectives of their management plans. The two districts found to be not operational and the one district for which the status could not be determined were not in compliance with one or more of the audited statutory requirements.

Many districts did not fully comply with the requirement to prepare an annual budget and the requirement to develop certain policies and procedures. The six districts in partial compliance with the annual budget requirement develop and use budgets, but they do not contain all of the required components. The two districts in partial compliance with the policies and procedures requirement had developed some, but not all, of the required policies and procedures.

Table 11

District Compliance With Basic Statutory Requirements						
District	Statutory Requirement					
	Board Meetings	Notices and Minutes	Annual Budget	Annual Audit	Rules	Policies and Procedures
Barton Springs/Edwards Aquifer CD	Yes	Yes	Yes	Yes	Yes	Yes
Headwaters UWCD	Yes	Yes	Partial ³	Yes	Yes	Partial ⁴
High Plains UWCD	Yes	Yes	Yes	Yes	Yes	Yes
Hudspeth County UWD	Yes	Partial ²	No	No	Yes	No
Irion County WCD	Yes ¹	Yes	Partial ³	Yes	Yes	Partial ⁴
Lipan-Kickapoo WCD	Yes	Yes	Partial ³	Yes	Yes	Yes
Live Oak UWCD	Yes	Yes	Partial ³	Yes	Yes	No
Mesa UWCD	Yes	Yes	Partial ³	Yes	Yes	Yes
Sterling County UWCD	Yes ¹	Yes	Partial ³	Yes	Yes	No
<p>¹ Irion County WCD and Sterling County UWCD hold monthly Board meetings in accordance with their enabling legislation requirements.</p> <p>² Hudspeth UWD makes up only a portion of the county. Rather than post notices with the County Clerk, it posts notices with the City Clerk for Dell City.</p> <p>³ These districts prepare annual budgets, but the budgets do not contain all of the required components.</p> <p>⁴ These districts have developed some, but not all, of the required policies and procedures.</p>						

Management Responses



BARTON SPRINGS / EDWARDS AQUIFER CONSERVATION DISTRICT

July 18, 2000

Ms. Amy Dingler
Project Manager
State Auditor's Office
Robert E. Johnson Building
1501 North Congress Avenue, Suite 4.224
Austin, Texas 78701

Re: Draft Groundwater Conservation District Audit Report

Dear Ms. Dingler:

Thank you for providing our District the opportunity to comment on the draft report of our audit. As we discussed by phone last week, we think this is a fair and impartial assessment of the performance and operation of the Barton Springs/Edwards Aquifer Conservation District. You and your staff have conducted this process professionally and thoroughly.

Our Board of Directors officially reviewed the draft report on Thursday, July 13th during our Board meeting. I shared our conversation concerning the SAO's assessment of the District's partial compliance with the budget requirements set forth in the Texas Water Code Chapter 36.154. With the District limited by our enabling statute to incur debt in excess of one-year, the requirement to list the outstanding obligations of the District in the annual budget becomes a moot point. It is our understanding that after clearing up that discrepancy in the draft report, the District will be determined to be fully operational and is in compliance with all basic statutory requirements audited during this process.

Sincerely,

A handwritten signature in black ink, appearing to read "Stovy Bowlin".

Dr. Stovy L. Bowlin, AICP
General Manager

1124 Regal Row • Austin, Texas 78748 • (512) 282-8441 • Fax: (512) 282-7016 • www.bseacd.org • e-mail: bseacd@mail.bseacd.org

HEADWATERS UNDERGROUND WATER CONSERVATION DISTRICT

Phone: (830) 896-4110

Fax: (830) 257-3201

E-Mail: huwcd@huwcd.org

James E. Haynie
President

Cornelius van Bavel
Vice-President

Susan Sander
Secretary-Treasurer

Donald H. Henderson
Director

Dean Mitchell
Director

Cameron Cornett
General Manager

July 18, 2000

Amy K. Dingler
Project Manager
State Auditor's Office
Robert E. Johnson Building
1501 North Congress Avenue, Suite 4.224
Austin, Texas 78701

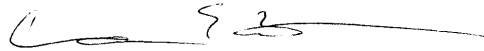
Dear Ms. Dingler:

Headwaters Underground Water Conservation District has received the District's report draft copy of the audit performed by your office.

As we discussed, due to the general nature of the draft, we are awaiting your comments as to the specific District deficiencies identified by your audit.

If you have any questions or need further assistance, please do not hesitate to contact me at (830) 896-4110, or email me at huwcd@huwcd.org.

Respectfully submitted,



Cameron E. Cornett
General Manager

1424 Sidney Baker North
Live Oak Plaza
Kerrville, TX 78028

Ms. Amy Dingler
Project Manager
Office of the State Auditor
P.O. Box 12067
Austin, Texas 78711-2067

Re: Audit of Hudspeth County Underground Water
Conservation District No. 1

Dear Ms. Dingler:

This letter is written in response to the report you furnished the District that is to be forwarded to the TNRCC. The District does not assert that it was in complete compliance with all of the criteria set forth in your letter, but it does believe that it was operational within the meaning of the statute. Further in response to the findings the District is taking and has taken a number of actions to see that it will be in compliance in the future. The District would respond specifically to your letter as follows:

1. It was the District's policy to monitor the wells by having a District Director accompany the representative from the Texas Water Development (TWD) who was monitoring the observation wells. In the past the District was notified when the representative would be coming to monitor the wells. The District was not notified in 1999 when the representative was going to be in the District. The wells were monitored within the meaning of the statute but members of the District did not accompany and assist the TWD representative, Mr. John Ascarzio in monitoring the 18 observation wells. If it is the position of the State that the District must make a separate test of the wells, other than that being made by the TWD, then the District will do this in the future, though it is the District's position that test made in conjunction with TWD would comply with the law.
2. Since the District did not have the completed log data from the TWD the water table trends were not published in 1999. An article has been published in the year 2000 giving the water table trends.
3. The By-Laws of the District were not broken during 1999. Any violations of the By-Laws require Board Action and would be reflected in the minutes of the meetings of the Board of Directors.
4. The District admits that a news article on efficient use of water was not published in 1999, but the Article for 2000 will be published by the end of August.
5. The District did not have request for additional use of groundwater during the audit period, and believes that it should be considered in compliance with regard to this requirement.

6. The District appreciates the determination that it has complied with PL-566 by Ensuring that watersheds and ground water recharge projects are in proper working condition.


The District believes that it is in compliance with the water management plan other Than as set forth in this letter and should be determined to be operational during the Audit period.


A number of actions are now being taken by the District to see that there will be no Question in the future about the District being operational as follows:


1. Notices of meeting are being sent to the County Clerks Office at least 72 hours Before prior to the meeting and the notice also placed in the local Post Office, and Water Board Office.
2. A budget is being prepared for the remaining part of this year. This will be in place by the end of August.
3. An Auditor is being retained to complete audits required by law.
4. An Attorney, John C. Steinberger has been consulting with the District and will be placed under contract.
5. The District is retaining the services of an Engineer, Dr. Al Blair to review and up date the By-Laws that set forth the District Policies concerning wells, well permits etc.
6. Enclosed is the job description for a field technician being considered to be hired by the District?

The District believes that it was operational in 1999, and is certainly operational today.

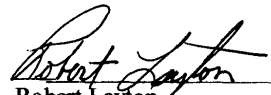
Thank you for your consideration.


John D. Meetze
President


Gene Lutrick
Vice-President


J.W. Neuhaus
Director


Randy Barker
Director


Robert Layton
Secretary/Treasure



IRION COUNTY WATER CONSERVATION DISTRICT

P.O. Box 10 Mertzon, TX 76941 OFFICE (915) 835-2015 FAX (915) 835-2366 e-mail: iewcd@airmail.net

Pct#1 - Bill Whitley PCT#2 - Dan McClung PCT#3 - Lad Lanthicum PCT#4 - Dale L. Bates At Large - Bill McManus III

July 14, 2000

State Auditor's Office
Amy Dingler
Project Manager
1501 N. Congress Ave., Suite 4.224
Austin, TX 79701

Dear Ms Dingler:

The Irion County Water Conservation District appreciates the opportunity to respond to the performance audit as required by §36.302, Texas Water Code. The District would also like to express appreciation for the cooperation and assistance provided by you and the State Auditor's Office.

The District also appreciates the recognition that "management goals and objectives are unique" and "reflect differences in (local) issues and concerns". Although several districts may cover an aquifer, the varied aquifer characteristics within that aquifer may require different management strategies. With the vast area covered by some aquifers, there is no one size fits all management goal and objective.

Through the audit process areas needing improvement were identified and the District will move forward to strengthen these areas. With improvement in these areas and continuing to administer the programs already in place the District can continue providing the service its constituents expect.

Sincerely,

A handwritten signature in black ink that reads "Dan McClung". The signature is written in a cursive style with a long, sweeping underline.

Dan McClung
Chairman

Lipan-Kickapoo Water Conservation District

P.O. Box 67

Vancourt, Texas 76955

Ph: 915-469-3988 Fax: 915-469-3989 Email: lkwcd@airmail.net

July 14, 2000

Ms. Amy Dingler, Project Manager
State Auditor's Office
P.O. Box 12067
Austin, Texas 78711-2067

Dear Ms. Dingler,

We have reviewed the audit of our management plan objectives in your report. We are pleased that your office recognizes the efforts of the district to conserve, preserve, and protect our groundwater resources and agree with most of your findings.

However, there is one section of the report that requires specific comments. It was initially referred to in your Overall Conclusion under Key Facts and Finding. There it is stated that "Two of the nine districts' plans lack goals or objectives to manage the majority of their programs or activities." The details for this statement are found in Section 1-A of the report. In this section, you state that our management plan does not "comprehensively address" our operations and that the bulk of our operations are administered through our action plan. You further describe the disconnect between our management plan and action plan and finally recommend that we join the two plans. Your position is that everything should be included in our management plan which must in turn be certified by the Texas Water Development Board. However, it is our understanding from §36.302 of the Texas Water Code that it is the responsibility of the state auditor to "make a determination of whether a district is actively engaged in achieving the objectives of the district's management plan based on an audit of the district's performance under the plan." Therefore, the determination should be whether we have achieved our objectives or not.

We agree that the management plan is a useful internal management tool, but we submit to you that our action plan is a better tool in our day to day operations. Our 10 year management plan contains goals and objectives that provide for long term planning not subject to rapid change, while our action plan contains goals and objectives that can continue to develop and change as conditions in the district change. The action plan can be changed or amended during any properly scheduled board meeting. This allows us the flexibility to adjust our goals and objectives to fit current needs in the district without having to submit these changes to the Texas Water Development Board for certification. Our action plan provides us the opportunity to address issues locally and swiftly as conditions in the district dictate. Therefore, we believe that the long term management plan and the short term action plan go hand in hand.

Your recommendation to combine the management plan and action plan has been noted and this office will give careful consideration to it. We are confident that the district will further improve its performance to achieve its objectives.

We appreciate the hard work by your staff during the past few months and the courtesy extended to this office. If you have any further questions, please do not hesitate to call.

Sincerely,



A.H. Denis, III
Board President

LIVE OAK UNDERGROUND WATER CONSERVATION DISTRICT

July 7, 2000

Ms. Amy Dingler
State Auditor's Office
PO Box 12067
Austin, Texas 78711-2067

Dear Ms. Dingler,

We have reviewed your agencies audit of the Live Oak Underground Water Conservation District and appreciate the opportunity to reply.

Although we do not agree with your assessment that the district is not operational, we do believe that the audit has given us valuable insight into the insufficiency of our record keeping. We are also considering changing our management plan to more accurately reflect the actions taken by the district to obtain our goals. The district's management plan was formulated to achieve the maximum protection, preservation and conservation of the underground water in the district. We agree with you that our district has achieved well above our performance standard with regard to waste prevention, our number 1 goal. We agree that we were unable to adequately document the school education portion of our efficient use goal. We believe, however, that we have found a more productive method of reaching that goal. By providing speakers to various civic, farm, and school groups, which we did on four occasions during the past year, we are better able to convey our educational message. We intend to reflect this in our management plan. The third goal, conjunctive water issues, we do not agree that we have not achieved our goal. While we are unable to document a meeting with the specific language emergency response/drought contingency, our General Manager and/or one or more board members have been party to several meetings with surface water entities concerning these subjects. One of these meetings, an emergency response to a TNRCC permit application, resulted in the district developing a regional water and wastewater facility plan, jointly with the Texas Water Development Board, the City of Three Rivers, the Nueces River Authority, and the City of Corpus Christi. We believe that coordination with other water entities within our district is of paramount importance to the accomplishment of our mission. The term emergency response/drought contingency meeting was language required by the Texas Water Development Board to approve our management plan, however, we believe that multiple meetings coordinating all activities, including emergency response/drought contingency, are extremely important to the accomplishment of our goals. We will continue to hold these meetings, and coordinate with surface water entities.

We thank you for the time spent on this audit. We believe that we have been able to identify areas that we can change that will assist in the management of the district.

Sincerely,



Scott Bledsoe, III
President

Post Office Box 980 * George West, Texas 78022
512-449-1151

BOARD OF DIRECTORS

President
RICHARD LEONARD

Vice-President
CRAIG WOODWARD

Secretary
FOY O'BRIEN

Members
LLOYD CLINE
MICHAEL RANEY



e-mail: mesauwcd@pics.net

July 16, 2000

DISTRICT STAFF

General Manager
HARVEY EVERHEART

Administrative Assistant
DEANYA WILLIAMS

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LAMESA, TX 79331-0497

PHONE: (806) 872-9205
FAX: (806) 872-2838

Amy K. Dingler
Project Manager
State Auditor's Office
P O Box 12067
Austin, TX 78711-2067

Dear Ms Dingler:

It has been a pleasure to work this audit with you and your staff. The professionalism shown by the State Auditor's Office is remarkable just as Groundwater Conservation Districts expected when Chapter 36.302 was written into Senate Bill #1.

The District agrees with the findings of your audit group. The annual budget for Mesa UWCD as required in 36.154 (b) did not contain a complete financial statement, including a statement of: (the list of 7 items). However, The Board of Directors would like for this letter, as a part of the final report, to reflect that all 7 of these items were addressed in preparation of the budget, even though there was "no statement" on the budget sheets. These materials will be sent to your office so you can make them a part of our permanent audit file. Providing your office has a specific format for the statement of these items to be included on the budget form, we would be more than pleased to implement your format. Otherwise, we will simply list this group of items below the Budget Year Title and before the budget line items for Income and Expenditures. You can be assured the District will implement necessary changes to make the procedure correct.

Thank you for your considerations. The District looks forward to the next audit.

Sincerely,

Harvey Everheart

STERLING COUNTY UNDERGROUND WATER CONSERVATION DISTRICT

P.O. Box 873 Sterling City, TX 76951
Office: 915 378-2704 FAX: 915 378-2624 E-Mail: scuwcd@wcc.net

July 10, 2000

State Auditor's Office
Amy Dingler
Project Manager
1501 N. Congress Ave., Suite 4.224
Austin, TX 79701

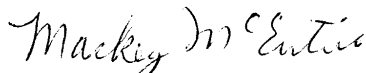
Dear Ms. Dingler:

The Sterling County Underground Water Conservation District (SCUWCD) would like to thank you and the Auditor's Office for the cooperation and help received during the performance audit as required by §36.302, Texas Water Code and the opportunity to respond to the audit.

The SCUWCD was formed for to protect groundwater quality by identifying and remediation of potential contamination sources. For the months of September through November, the District was without a manager. Beginning December 1, 1999, the District entered into an agreement with a neighboring district to share its manager to perform the managerial duties for both districts. SCUWCD also hired a part time technician to collect and analyze water samples, take water levels, and be the local contact in Sterling County. To date there have been ninety-two water samples collected and analyzed and water levels were taken in January and are in the process of being taken again. Even though the District could not be determined operational due to the nature of the management plan objects, the Board of Directors feel that the District is meeting the needs of the constituents.

The District plans to review and amend the management plan to better reflect the activities and programs. Alining the management goals to district activities and programs will benefit the District in serving its constituents. Also, the District is in the process of reviewing and adopting policies and procedures and has plans to implement an program to publicize District services.

Sincerely,



Mackey McEntire
Chairman

Objective, Scope, and Methodology

Objective

The primary objective of our audit was to determine whether reviewed districts are currently operational based on districts' efforts to achieve their management plans. District management plans are unique to each district. They address the following goals as applicable:

- Providing the most efficient use of groundwater
- Controlling and preventing waste of groundwater
- Controlling and preventing subsidence
- Addressing conjunctive surface water management issues
- Addressing natural resource issues

Districts' management plans should be useful internal management tools. Because we expect that districts will have set challenging goals for themselves, we consider it acceptable, in some cases, if a district does not achieve all of its goals and objectives each year. Our assessment of an individual district as operational is based on the district's having made good-faith efforts to implement its management plan.

An additional objective of the audit was to determine whether the districts comply with basic statutory requirements for groundwater districts. These statutory requirements are described in Texas Water Code, Chapter 36. The districts' statutory compliance, however, does not affect the assessments we have made about whether districts are operational or not. "Operational" or "not operational" determinations are based strictly on a district's activities as outlined in its management plan.

Scope

Nine groundwater conservation districts were selected for this first phase of audits. Districts were selected in an effort to obtain a representative cross section of the 63 groundwater districts across the State. We chose both large and small districts; old and new districts; districts in various areas of the State; and districts of various resources.

We reviewed individual districts' efforts to achieve goals and objectives of their unique management plans. As much as possible, given constraints of the audit, we selected objectives that would allow us to:

- Review at least one objective for each of a district's goals.
- Review 50 percent of a district's total goals.
- Review objectives associated with greater resource commitment of a district (where it spent more time or money).
- Review objectives associated with issues that district staff members reported to be of primary importance to the district.

When the initial review of selected objectives left doubt about whether a district was making good-faith efforts, we added objectives to our audit in order to be certain of the assessment.

Since all of the districts' management plans are laid out in yearly schedules, we audited the most recent complete year, 1999, for each district. For districts with management plans that parallel their fiscal rather than calendar year, we audited fiscal year 1999 and fiscal year 2000 through December 1999 or January 2000.

For the review of statutory compliance, we selected six key requirements from Texas Water Code, Chapter 36. For the statutory requirements, we generally audited fiscal year 1999 and fiscal year 2000 through December 1999 or January 2000.

Methodology

The audit methodology consisted of gaining an understanding of each of the nine districts audited. In most cases, the audits were performed by review of documents submitted by the districts and many phone interviews. We performed fieldwork visits where we felt the visits would particularly help our understanding of the activities of a district or where the nature of certain objectives made a visit imperative.

Information sources included:

- Texas Water Code and other state statutes and regulations
- District management plans, annual progress reports, district rules and by-laws, and other documentation provided by the districts
- District websites
- Interviews with management, staff, and members of the districts' board of directors
- Interviews with Water Development Board staff members involved in the certification of district management plans
- Interviews with Natural Resource Conservation Commission staff members involved in district regulation and enforcement
- Observation of district offices and various staff functions and activities
- Operating manual guidelines from the Texas Alliance of Groundwater Conservation Districts
- Legislative reports on groundwater districts and priority groundwater management areas

Analytical techniques included:

- Comparison of actual district activities with targets set in district management plans
- Analysis of district budgets and financial statements, rules, and policies and procedures to determine compliance with statutory requirements
- Queries on database files obtained from certain districts to confirm numbers reported in district annual reports

Criteria used:

- Statutory requirements
- Districts' unique management plan goals and objectives
- Internal district policies and procedures

Staff at the Water Development Board and the Natural Resource Conservation Commission provided technical assistance to the State Auditor's Office audit team during the course of this audit. We are grateful for the cooperation and help from these agencies. Particularly, we appreciate Water Development Board's permission to use the maps included in this report.

We are also grateful for the superior level of cooperation from the nine audited districts' staffs and boards of directors.

Fieldwork was conducted from November 1999 through April 2000. The audit was conducted in accordance with applicable professional standards, including:

- Generally accepted auditing standards
- Generally accepted government auditing standards

Audits of groundwater conservation districts are required by Texas Water Code, Chapter 36, Section 302.

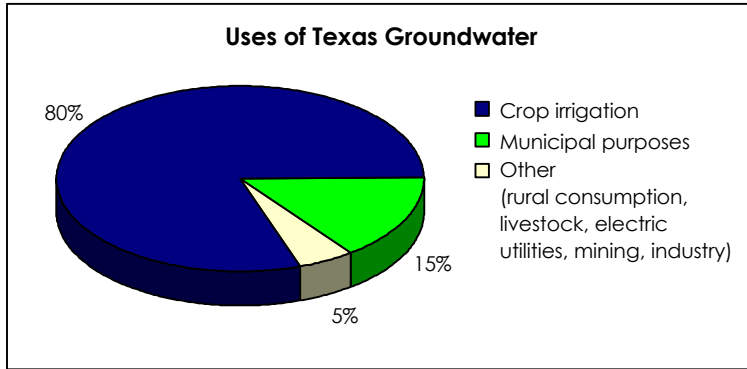
The audit work was performed by the following members of the State Auditor's staff:

- Amy Dingler, MPAff (Project Manager)
- Tony Patrick, MBA (Assistant Project Manager)
- Michael Dean, MPAff
- Ruben Juarez
- Cesar Saldivar
- Rick Rupert, MPA
- Charles P. Dunlap, Jr., CPA (Quality Control Reviewer)
- Dennis O'Neal, CIA (Quality Control Reviewer)
- Joanna B. Peavy, CPA (Audit Manager)
- Craig Kinton, CPA (Audit Director)

Background Information

What is groundwater?

Freshwater is divided into two categories based on its location. Groundwater is water percolating beneath the earth's surface. Surface water is located in rivers, lakes,



reservoirs, and above-ground streams. Most groundwater comes from precipitation. When it rains, water that is not used by plants sinks further into the ground. It builds up in cracks in rock or spaces in soil or sand. An area of the ground through which water can easily permeate and build up to levels great enough to yield water for wells or springs is called an aquifer.

Currently, about 61 percent of the total water used by the State comes from

groundwater. Groundwater is used primarily for crop irrigation, but it is also used for livestock and human consumption, electric utilities, mining, and industry. There are 9 major and 20 minor aquifers in Texas, underlying about four-fifths of the State.

How does Texas regulate its water?

Texas uses different approaches to regulate its groundwater and surface water. The State owns surface water, which citizens can generally use freely for domestic and livestock purposes. However, for other purposes such as municipal use, mining, or irrigation, surface water users must have permits issued by the Natural Resource Conservation Commission or its predecessor agency.

On the other hand, the individual landowners own groundwater. The "rule of capture," adopted by the Texas Supreme Court in 1904 and reaffirmed in 1999, provides that the landowner can withdraw, or "capture" water from below his or her land without limitation as long as the water is not intentionally wasted. This rule of capture is limited, however, in areas of the State that are within groundwater conservation districts.

What are groundwater districts?

Groundwater conservation districts are regulating authorities charged with conserving, preserving, and protecting groundwater. Districts are locally controlled, and they are the State's preferred method of groundwater management. Districts may regulate the construction, spacing, and production of certain water wells. They may also monitor the quantity and quality of groundwater and adopt and enforce rules to protect the quality and levels of water in the segments of the aquifers they administer.

Elected boards of directors generally govern groundwater districts. Most districts are financed through property taxes, although some are financed solely through user fees. Districts can be created through special legislation or by the Natural Resource Conservation Commission by petition of landowners in the proposed district. Fifty-six of the 63 districts in the State were created through legislation. Only seven were created by petition.

Despite a common charge, districts differ from one another in many ways. Districts differ in age, with the High Plains UWCD, which was created in 1951, being the oldest, and the 13 authorized during the 76th Legislature being the youngest. Districts also differ in size and resources. Many districts encompass a single county, or even just part of a county. Several other districts cover many counties. Furthermore, districts' annual revenues vary from hundreds to millions of dollars.

What is the State's role in regulating groundwater?

Under Texas Water Code, Chapter 36, the State has limited oversight of local groundwater districts. Districts are required to develop management plans, which lay out their unique goals and objectives for managing the groundwater they administer. The Water Development Board must review and certify management plans for administrative completeness. Once districts have had at least one year to operate under their certified management plans, the State Auditor's Office must determine whether they are operational, that is, actively engaged in achieving the objectives of those management plans.

If a district fails to submit a management plan to the Water Development Board for review, or if the State Auditor's Office finds that a district is not operational, the district is referred to the Natural Resource Conservation Commission for enforcement. The Commission has several enforcement options established in statute, from requiring a district to take or refrain from certain actions to dissolving the district's board of directors, removing the district's taxing authority, or dissolving the district. Furthermore, as the lead agency for the Texas Groundwater Protection Committee, the Commission is primarily responsible for the regulatory protection of groundwater.

Sources

State of Texas. House of Representatives. House Research Organization. *Managing Groundwater for Texas' Future Growth*. Austin, 2000.

—. Natural Resource Conservation Commission. *TNRCC Strategic Plan: State of the Texas Environment, Fiscal Year 1999-2003*. Austin, 1998.

—. Senate. Senate Research Center. *A New Chapter for Texas: The Rule of Capture, Groundwater Conservation Districts, and Sipriano v. Great Spring Waters of America*. Austin, 1999.

Characteristics of the Audited Districts

District Name	Barton Springs/ Edwards Aquifer	Headwaters	High Plains	Hudspeth
Date of Creation¹⁰	September 1987	Aug 26, 1991	September 19, 1951	May 30, 1959
Date of Plan Certification by WDB	September 17, 1998	August 17, 1998	August 24, 1998	October 14, 1998
Size	4 counties or parts of counties	Single county	15 counties or parts of counties	A portion of a single county
Population	Approximately 155,000	Approximately 40,000	Approximately 431,000	Approximately 500-550
Annual Revenue (Fiscal Year 1999)	\$979,752	\$118,058	\$1.2 million a year	Approximately \$1,500-\$2,000
Method of Funding	Fee-based	Property taxes and application fees for permits	Property taxes and contracts with the State.	Property taxes
Tax Rate	N/A	\$0.0046 per \$100 valuation	\$0.0084 per \$100 valuation	Unknown
Staff Size	12 full-time	2 full-time, 2 part-time contract employees	17 full-time	1 part-time secretary (20 hours/month)
Aquifers Under Jurisdiction	Major: Edwards and Trinity. Minor: Alluvial formations	Major: Trinity and Fort Terret segment of the Edwards-Trinity (Plateau) Minor: Alluvial formations	Major: Ogallala Minor: Dockum	No Major Minor: Bone Spring-Victorio Peak
Other Water Authorities With Jurisdiction in the District	Guadalupe-Blanco River Authority, Lower Colorado River Authority, Plum Creek Soil and Water Conservation District, and some special use districts	Upper Guadalupe River Authority, with whom the District contracts for its administrative services	Brazos River Authority, Colorado River Authority, Canadian River Authority	None
District's Main Areas of Concern (Self-Reported)	Ensuring sustainable development over the recharge zone	Improving understanding of groundwater and developing financial capabilities	Net depletion in water supply	Quality and quantity (pumping depth)
Main Activities (Most Time Consuming) (Self-Reported)	Scientific investigation Educational programs	Permitting process for new wells Rule enforcement Preparation and activities for monthly board meeting	Water quality and level monitoring programs Agricultural loan programs Conservation efforts Public presentations Legislative session activities and regional water planning	Issuing permits for well drilling

¹⁰ Effective date of legislation authorizing creation of the district

Irion	Lipan-Kickapoo	Live Oak	Mesa	Sterling
May 2, 1985	June 17, 1987	June 14, 1989	June 14, 1989	August 31, 1987
September 4, 1998	September 4, 1998	October 14, 1998	August 14, 1998	September 4, 1998
Single county	Parts of two counties	Single county	Single county	Single county
Approximately 1,700	Approximately 7,000-8,000	Approximately 9,000	Approximately 15,000	Approximately 1,500
\$441,309 ¹¹	\$89,248	\$70,618	\$126,580	\$100,277
Property taxes	Property taxes and contract services income	Property taxes	Property taxes	Property taxes
\$0.0507 per \$100 valuation	\$0.043 per \$100 valuation	\$0.00847 per \$100 valuation	\$0.024 per \$100 valuation	\$0.04743 per \$100 valuation
1 full-time, 1 part-time	1 full-time, 1 part-time	1 part-time manager	2 full-time, 1 part-time	1 full-time, 1 part-time
Major: Edwards-Trinity Minor: Dockum, alluvial formations	Major: Edwards-Trinity (Plateau) Minor: Lipan	Major: Gulf Coast Carrizo-Wilcox	Major: Ogallala	Major: Edwards-Trinity Minor: Dockum
None	Upper Colorado River Authority, Tom Green County Water Control, and Improvement District No. 1	Three Rivers Water Supply District, Nueces River Authority, and several water supply corporations	Colorado River Municipal Water District	Colorado River Municipal Water District
Guarding water integrity against oil field and other contamination	Oil field contamination and water availability	Water integrity	Understanding groundwater and improving quality	Guarding water integrity against oil field contamination
Water quality testing Water level monitoring Work with the West Texas Weather Modification Association	Registering, permitting, and keeping track of district wells Monitoring aquifer levels and recharge to ensure continued water availability	Water quality testing Day-to-day administrative chores	Public education and awareness programs Conservation programs Agricultural loan program Water level and quality monitoring	Well permitting Water quality and level monitoring

¹¹ \$355,633 from State Weather Modification funds, \$81,620 from Property Taxes, \$4,056 from interest and penalties

Appendix 4:

Related Maps

Click on the map you want to view

[**Confirmed and Newly Authorized Groundwater Conservation Districts**](#)

[**Major Aquifers of Texas**](#)

[**Minor Aquifers of Texas**](#)