## JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT

# MANAGEMENT PLAN 2003-2013

#### DISTRICT MISSION

The Jeff Davis County Underground Water Conservation District will strive to develop, promote, and implement water conservation and management strategies to protect water resources for the benefit of the citizens, economy, and environment of the District.

#### TIME PERIOD FOR THIS PLAN

This plan becomes effective upon adoption by the District Board of Directors and certification by the Texas Water Development Board (TWDB) affirming the plan is administratively complete. This plan replaces the existing plan adopted by the District Board of Directors on June 8, 1998. This District management plan will remain in effect until September 1, 2013, or a period of ten (10) years, which ever is later, or until a revised plan is certified by the TWDB.

#### STATEMENT OF GUIDING PRINCIPLES

The District recognizes that the groundwater resources of the county are of vital importance. The preservation of this most valuable resource can be managed in a prudent and cost effective manner through education, regulations, and permitting. The greatest threat to prevent the District from achieving the stated mission is inappropriate management, based in part on the lack of understanding of local conditions. A basic understanding of the aquifers and their hydrogeologic properties, as well as a quantification of resources is the foundation from which to build prudent planning measures. This management plan is intended as a tool to focus the thoughts and actions of those given the responsibility for the execution of the District activities.

#### **General Description**

The citizens of Jeff Davis County through an election created the District, November 2, 1993. The current Board of Directors are Albert Miller - Chairman, Johnny Wofford - Vice-Chairman, - Secretary, Delton Daugherty, Jim Dyer and W. W. McElroy. The District Manager is Janet Adams. Jeff Davis County underground Water Conservation District (JDCUWCD) covers all of Jeff Davis County and portions of Brewster, Pecos, and Presidio Counties. The agricultural community dominates the county's economy. The agricultural income is derived mainly from cattle. Tourism and hunting also contribute to the income of the county.

#### Location and Extent

Jeff Davis County, having areal extent of 2258 square miles, is located in west Texas. The county is bounded on the east by Pecos County, on the north by Reeves County, on the west by Culberson County, and on the south by Brewster and Presidio Counties. The District also

includes 12,718 acres in Brewster County, 17,835 acres in Pecos County, and 11,958 acres in Presidio County. Fort Davis, which is located on the east side of the county, is the county seat. Valentine, is the only other town in the county, is located in the west portion of the county.

#### **Topography**

Jeff Davis County is located in the mountains of West Texas. The county has the highest average elevation in the state of Texas with one mile or higher altitudes. The county consists of peaks, canyons, and plateaus.

#### **Groundwater Resources of Jeff Davis County**

In the Jeff Davis County Underground Water Conservation District, the Texas Water Development Board lists several aquifers, which account for the known groundwater resources of the District. These include the Edwards-Trinity (Plateau), the West Texas Bolsons, of which there are several divisions, and the Igneous areas of the District. Due to the lack of scientific study, the aquifers are not well defined geographically. The TWDB also lists a small portion of the Cenozoic Pecos Alluvium Aquifer along the northeaster boundary of the District.

The TWDB is currently conducting a groundwater hydrology study in the Fort Davis area. This study should assist the district in its effort to better understand the water resources of that part of the District. The TWDB has provided the District with countywide date to assist the District in determining the groundwater resources, usage and recharge characteristics of the aquifers in Jeff Davis County. This information will assist the District in Planning for future estimates of available groundwater and its conservation and protection.

Currently the District is using the TWDB's Groundwater Availabilities Estimation Process, which uses available datasets to generate descriptions of the aquifers as well as estimates of recharge and availability rates. When combined with recharge and production values, these estimates can be used by the District to come up with future estimates of available groundwater and necessary production limits. It is estimated that the annual recharge to the JDCUWCD is as follows:

NAME	INCHES OF RAIN PER YEAR	RECHARGE IN ACRE-FEET PER YEAR
Ryan Flat	12	0
Lobo Valley	11	0
Igneous Aquifer	16	2500
Edwards-Trinity Aquifer	14	3900
TOTAL FOR JDCUWCD		6400

This data was obtained from "Far West Texas Regional Water Plan", 2001 and the current aquifer model being prepared by LBG Guyton. The new data that the District is receiving is showing zero recharge for the West Texas Bolsons which will change the supply and availability numbers. These new numbers should be available to the District by January 1, 2004.

#### Additional Amount of Natural/Artificial Recharge That Would Feasible Be Achieved

The additional amount of natural or artificial recharge that would be realized from implementation of feasible weather modification would be an 8% increase in rainfall. This would result in a 703.5-acre feet increase in recharge. This data was obtained from the direct gathering of evidence of the High Plains Water District of their weather modification program.

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#### Groundwater use in Jeff Davis County

In the past, annual groundwater usage in the District has varied from a high of 4164 acre-feet to a low of 1054 acre-feet. Annual usage for 1991 through 2000 is as follows:



2000	4164 acre-feet per year
1996	1086 acre-feet per year
1995	1054 acre-feet per year
1994	1093 acre-feet per year
1993	1062 acre-feet per year
1992	3452 acre-feet per year
1991	3364 acre-feet per year

This data was obtained from "Water For Texas", TWDB 1997 and "Far West Texas Regional Water Plan" 2001. The District also received pumpage data from all water utilities and major users in the District.

Water exported out of Jeff Davis County Underground Conservation District is as follows:

2002	1282 acre-feet/year
2001	1184 acre-feet/year
2000	1225 acre-feet/year
1999	1073 acre-feet/year
1998	1154 acre-feet/year

This data was obtained from meters read by JDCUWCD.

#### Projected Demands for Water in Jeff Davis County

This management plan is based upon the estimates received from "Far West Texas Regional Water Plan, 2001. The FWTRWP has projected that the total water demands for Jeff Davis County will be 4036 acre-feet per year by 2050. This estimate is based on projections of the following breakdown. This data was obtained from "Far West Texas Regional Water Plan", 2001 and the current plan the region is working on.

## PROJECTED WATER DEMANDS JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT JEFF DAVIS COUNTY

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WUG	Category	2000	2010	2020	2030	2040	2050
Fort Davis	Municipal	251	366	398	433	427	425
County-Other	Municipal	197	198	196	193	188	189
Irrigation	Irrigation	3,184	3,119	3,057	2,995	2,935	2,875
Livestock	Livestock	547	547	547	547	547	547
Total Projected Water Demands in acre-fee	t per year =	4,179	4,230	4,198	4,168	4,097	4,036

#### **Projected Water Supply**

Based on the supply and demand calculations and projections Jeff Davis County Underground Water Conservation District will not have a shortage of water. The demands will be less than the supplies. The supply totals for 2050 are as follows

## PROJECTED WATER SUPPLIES JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT JEFF DAVIS COUNTY

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WUG	Source Type	Source Name	2000	2010	2020	2030	2040	2050
Fort Davis	Groundwater	Igneous Aquifer	846	846	846	846	846	846
County-Other	Groundwater	Edwards-Trinity-Plateau Aquifer	2	2	2	2	2	2
County-Other	Groundwater	Igneous Aquifer	77	77	77	77	77	77
County-Other	Groundwater	West Texas Bolson Aquifer	10	10	10	10	10	10
County-Other	Groundwater	West Texas Bolson Aquifer	35	35	35	35	35	35
Irrigation	Groundwater	Igneous Aquifer	628	628	628	628	628	628
Irrigation	Groundwater	West Texas Bolson Aquifer	1,000	1,000	1,000	1,000	1,000	1,000
Irrigation	Groundwater	West Texas Bolson Aquifer	1,572	1,572	1,572	1,572	1,572	1,572
Livestock	Groundwater	Edwards-Trinity-Plateau Aquifer	130	130	130	130	130	130
Livestock	Groundwater	Igneous Aquifer	78	78	78	78	78	78
Livestock	Groundwater	Other Aquifer	234	234	234	234	234	234
Livestock	Groundwater	West Texas Bolson Aquifer	31	31	31	31	31	31
Livestock	Groundwater	West Texas Bolson Aquifer	50	50	50	50	50	50
Total P	roiected Water Su	pplies in acre-feet per year =	4,693	4,693	4,693	4,693	4,693	4,693

This data was obtained from "Far West Texas Regional Water Plan", 2001. Even though the projected supply and demand show there will not be a shortage of groundwater, the Jeff Davis Underground Water Conservation District will continue to encourage conservation and management practices that will protect the water resources of the District.

#### **Management of Groundwater Supplies**

The District will manage the supply of groundwater within the District in order to conserve the resource while seeking to maintain the economic viability of all the resource user groups, public and private. In consideration of the economic and cultural activities occurring within the District, the District will identify and engage in such activities and practices, that if implemented would result a reduction of groundwater use. An observation network shall be established and maintained in order to monitor changing storage conditions of groundwater supplies within the District. The District will make regular assessments of water supply and groundwater storage conditions and will report those conditions to the Board and to the public. The district will undertake, as necessary and co-operate with investigations of the groundwater resources within the District and will make the results of investigations available to the public upon adoption of the Board.

The District has rules to regulate groundwater withdrawals by means of production limits. The District may deny a well construction permit or limit groundwater withdrawals in accordance with the guidelines stated in the rules of the District. In making a determination to deny a permit or limit groundwater withdrawals, the District will consider the public benefit against individual hardship after considering all appropriate testimony.

The relevant factors to be considered in making a determination to deny a permit or limit groundwater withdrawals will include:

- 1) The purpose of the rules of the District
- 2) The equitable distribution of the resources
- 3) The economic hardship resulting from grant or denial of a permit or the terms prescribed by the permit

In pursuit of the Districts mission of protecting the resource, the District may require reduction of groundwater withdrawals to amounts, which will not cause harm to the aquifer. To achieve this purpose, the District may, at the Boards discretion amend or revoke any permit after notice and hearing. The determination to seek the amendment or revocation of a permit by the District will be based on aquifer conditions observed by the District. The District will enforce the terms and conditions of permits and the rules of the District by enjoining the permit holder in a court of competent jurisdiction as provide for in TWC 36.102.

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

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

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The District will adopt rules relating to the permitting of wells and the production of groundwater. The rules adopted by the District shall be pursuant to TWC 36 and the provisions of this plan. All rules will be adhered to and enforced. The promulgation and enforcement of the rules will be based on the best technical evidence available.

The district shall treat all citizens with equality. Citizens may apply to the District for discretion in enforcement of the rules on grounds of adverse economic effects or unique local conditions. In granting of discretion to any rule, the Board shall consider the potential for adverse effects on adjacent landowners. The exercise of said discretion by the Board shall not be construed as limiting the power of the Board.

The District will seek the cooperation in the implementation of the plan and management of groundwater supplies within the District. All activities of the District will be undertaken in cooperation and coordinated with the appropriate state, regional, or local water management entity.

### The methodology that the District will use to trace its progress on an annual basis in achieving all of its management goals will be as follows:

The District manager will prepare and present an annual report to the Board of Directors on District performance in regards to achieving management goals and objectives (during last monthly Board of Directors meeting each fiscal year, beginning December 31, 2000). The report will include the number of instances each activity was engaged in during the year, referenced to the expenditure of staff time and budget so that the effectiveness and efficiency of each activity may be evaluated.

The annual report will be maintained on file at the District office.

#### GOALS, MANAGEMENT OBJECTIVES And PERFORMANCE STANDARDS

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#### Goal

1.0 Providing the Most Efficient Use of Groundwater.

#### Management Objective

1.1 Each year, require meters to be installed on all production wells.

#### Performance Standard

3.3a - Each year, provide a report to the Board of Directors indicating the number of meters installed on new wells in the District and the location and ownership.

#### Management Objective

3.2 All current existing rules and regulations will be reviewed and amended to address the needs of the District every three years.

#### Performance Standard

3.2a - Each year, report to the Board of Directors the number of changes required to keep District rules updated to District needs.

#### Goal

2.0 Controlling and Preventing Waste of Groundwater.

#### Management Objective

3.1 Each year, investigate all reports of wasteful practices within the District.

#### Performance Standards

- 3.1a Each year, locate all complaint sites on a District map.
- 3.1b Each year, provide a report to the Board of Directors indicating the number of complaint sites.

Goal 3.0	Implement management strategies that will address drought conditions.	
5.0		34
	Management Objective 4.1 - The District will monitor the Palmer Drought Severity Index (PDSI) by Texas	36
	Climatic Divisions. If PDSI indicates that the District will experience severe drought conditions, the District will notify all public water suppliers within the District.	37
	Performance Standard 4.1a - The District staff will monitor the PDSI and report findings and actions to the	
	District Board on a quarterly basis.	
Goal		
4.0	Implement management strategies that will promote water conservation.	38
	Management Objective	46
	5.1 Disperse educational information yearly regarding the current conservation practices for efficient use of water resources.	41
	Performance Standard	
	5.1a - Each year, report to the Board of Directors the number of water conservation literature packets handed out.	

#### SB - 1 MANAGEMENT GOALS DETERMINED NOT-APPLICABLE

Goal 1.0	Control and prevention of subsidence.	dd
The ri	igid geologic framework of the region precludes significant subsidence from occurring.	
Goal 2.0	Addressing natural resource issues that impact the use and availability of groundwater or that are impacted by the use of groundwater	30
	District has no documented occurrences of endangered or threatened species dependent groundwater resources.	
Goal 3.0	Addressing conjunctive surface water management issues.	طه

There is no surface water within the District.

#### SUMMARY DEFINITIONS

- "Board" the Board of Directors of the Jeff Davis County Underground Water Conservation District.
- "District" the Jeff Davis County Underground Water Conservation District.
- "TNRCC" Texas Natural Resource Conservation Commission.
- "TWDB" Texas Water Development Board.
- "Waste" as defined by Chapter 36 of the Texas Water Code means any one or more of the following:
- 1. Withdrawal of groundwater from a groundwater reservoir at a rate and in a amount that causes or threatens to cause intrusion into the reservoir of water unsuitable for agricultural, gardening, domestic, or stock raising purposes;
- 2. The flowing or producing of wells from a groundwater reservoir if the water produced is not used for a beneficial purpose;
- Escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;
- 4. Pollution or harmful alteration of groundwater in a groundwater reservoir by salt water or by other deleterious matter admitted from another stratum or from the surface of the ground;
- 5. Willfully or negligently causing, suffering, or allowing groundwater to escape into a river, creek, natural watercourse, depression, lake, reservoir, drain, sewer, street, highway, road, or road ditch, or onto any land other than that of the owner of the well unless such discharge is authorized by permit, rule, or order issued by the commission under Chapter 26 of the Texas Water Code;
- Groundwater pumped for irrigation that escapes as irrigation tail water onto land other than that of the owner of the well unless permission has been granted by the occupant of the land receiving the discharge.
- For water produced from an artesian well "waste" has the meaning assigned by Section 11.205 of the Texas Water Code.

#### Posted 8-14-03 11:45 A.M. Sur Brackley, 6.Ce

#### NOTICE OF MEETING OF BOARD OF DIRECTORS JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT

Notice is hereby given that the Board of Directors of the Jeff Davis County Underground Water
Conservation District will meet at the Fort Davis Water Supply Corporation Building, located on Highway 17, Fort Davis,
Texas at 6:00 PM on Monday, August 18, 2003. This meeting is open to members of the public.

#### **AGENDA**

- 1. Call to order and establish a quorum.
- 2. Certify posting of notice of the meeting.
- 3. Hold public hearing on 2003 Management Plan
- 4. Read and approve minutes.
- 5. Consider / approval of monthly bills.
- 6. Discussion / possible action on all fees.
- 7. Exempt well applications for Boards approval.
  - A. Larry Blair, 3 miles east of Fort Davis.
  - B. Richard Collins, 105 Juniper Pass, Davis Mountain Resort
- 8. Non-exempt well applications
- 9. Managers Report.
- 10. Items for the next meeting.
- 11. Public Comments.
- 12. Adjourn.

I, the undersigned authority, do hereby certify that the above notice of meeting of the Board of Directors of the above named District, is a true and correct copy of said notice and that a true and correct copy was posted at the Jeff Davis County Courthouse, a place convenient and readliy accessible to the general public at all times. The Jeff Davis County Underground Water Conservation District reserves the right to convene in Executive Session on any agenda or discussion item if discussion of said item falls under the exceptions listed in Chapter 551, Texas Government Code, known as the "Open Meetings Act".

Janet Adams District Manager 11

The Board of Directors of the JDCUWCD met in the JDCUWCD office in Fort Davis, Texas on August 18, 2003. Present were Albert Miller, Delton Daugherty, Johnny Wofford and Janet Adams, District Manager, Bob Dillard with Jeff Davis County Dispatch. Absent were W W McElroy and Jim Dyer.

Mrs. Adams certified that the meeting had been posted in accordance with the Open Meetings Law. Mr. Miller called the meeting to order with a quorum present at 6:00 p.m.

The Board recessed at 6:02 for the Public Hearing on the 2003 Management Plan. One member of the public, Bob Dillard was in attendance. The District Manager presented changes and additions to the plan. After discussing the plan and answering all questions ask the public hearing was closed at 6:20

The Board returned to the regular meeting at 6:20.

Mr. Wofford made a motion that the plan be adopted and a resolution be signed. It was seconded by Mr. Daugherty. Motion passed 3-0.

The minutes of July 21, 2003 meeting were read and approved with an addition of Jim Dyers appointment by the Commissioners Court on July 14, 2003 on a motion by Mr. Wofford and seconded by Mr. Daugherty. Motion carried 3-0.

The following bills were reviewed and approved for payment on a motion by Mr. Daugherty and seconded by Mr. Wofford. Motion carried 3-0.

225.00	Jan Adams	Office Help
346.42	Bank of America	151.42 Holiday Inn, Stephenville
		195.00 Registration Short School
1203.66	Janet Adams	Travel
648.95	Janet Adams	salary

Deposits 25.00

Balance 29,573.49

The District Manager reported that Powell Plant Farm and the Tomato Farm would fall under the ag. use fee. After a discussion on these fees and a new well permit fee the Board decided to continue this item at the next meeting.

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Mr. Daugherty made a motion that the following exempt wells be approved. Second by Mr. Wofford. Motion carried

- A. Larry Blair, 3 miles east of Fort Davis.
- B. Richard Collins, 105 Juniper Pass, Davis Mountain Resort

.There was no non-exempt well applications.

#### Manager Report:

- 1. Monthly report
- Janet Adams has taken a temporary position with the Presidio County UWCD to assist with the District organization
- 3. The three Districts will be using the same format on drilling permit forms
- 4. Report on Seminar in College Station
- 5. Report on Well Plugging
- 6. Legislative update
- Expense of having rules rewritten
- 8. Lipan-Kickapoo moratorium on non-exempt well drilling
- 9. Report on Igneous-West Texas Bolson GAM

#### Items for next meeting:

District Fees

Mr. Miller opened the meeting for public comments. No one ask to speak.

Mr. Wofford made a motion to adjourn at 6:55. Mr. Miller seconded the motion. Motion carried 3-0.

Delton Daugherty Secretary

#### **Jeff Davis County Underground Water Conservation District**

P O Box 1203 Fort Davis, Texas 79734

Phone: 432-426-3441 Fax: 432-426-2087 Cell: 432-249-0340

> 13 (a)

August 19, 2003

Enclosed is the 2003-2013 Management Plan for Jeff Davis County Underground Water Conservation District. Please have the Far West Texas Water Planning Group (Region E) review this plan and specify any areas of conflict with the approved Regional Water Plan.

Janet Adams District Manager

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailples or on the front if space permits.</li> <li>Article Addressed to:</li> <li>Tom Recurb</li> <li>Under FWTWQC</li> </ul>	B. Received by (Printed Name)  C. Date of Delivery  8 - H 12  D. Is delivery address different from item 1?  Yes  If YES, enter delivery address below:  No
POBUX 668 Algine, TX 19831	3. Service Type  Certified Mail
	4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number 7002 241	0001 200F 0454

## RESOLUTION ADOPTING MANAGEMENT PLAN OF THE JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT

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WHEREAS, The Management Plan of the Jeff Davis County Underground Water Conservation District, has been developed for the purpose of conserving, preserving, protecting, and recharging the underground water in the District.

WHEREAS, Under no circumstances, and in no particular case will this Plan, or any part of it, be construed as a limitation or restriction upon the exercise of any discretion, where such exist; nor may it in any way event be construed to deprive the Board of an exercise of power, duties and jurisdiction conferred by law, nor to limit or restrict the amount and character of data or information which may be required for the proper administration of the law.

THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE JEFF DAVIS COUNTY UNDERGROUND WATER CONSERVATION DISTRICT THAT:

The Management Plan of the Jeff Davis County Underground Water Conservation District is hereby adopted.

Adopted on this the 18th day of August 2003.

President - Albert Miller

Secretary - Delton Daugherty

#### Jeff Davis County Underground Water Conservation District

P O Box 1203 Fort Davis, Texas 79734

Phone: 432-426-3441 Fax: 432-426-2087 Cell: 432-249-0340

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August 19, 2003

There are no surface water management entities in Jeff Davis County Underground Water Conservation District.

Janet Adams District Manager

CELESTE BEEMAN MY COMMISSION EXPIRES June 18, 2007

] Celeste Beeman 8-22-03



#### FAR WEST TEXAS WATER PLANNING GROUP

1100 North Stanton, Suite 610 El Paso, Texas 79902

915/533-0998

915/532-9385 (FAX)

Jesse Acosta Counties

Janet Adams Water Utilities

Jerry Agan Public

Loretta Akers Public

Ed Archuleta Municipalities Vice Chairman

Randy Barker Groundwater Districts

Tom Beard Agriculture Chairman

Tom Brady Environment Executive Committee

Becky Brewster Municipalities Executive Committee

Elza Cushing Public Secretary

Mike Davidson Travel & Tourism

Ed Drusina Municipalities

Edd Fifer Water Districts Executive Committee

Howard Goldberg Industry

Ralph Meriwether Small Business

Albert Miller Groundwater Districts

Jim Ed Miller Water Districts

Kenn Norris Counties

David Etzold Building & Real Estate

Teresa Todd Counties

Teodora Trujillo Public

Jim Voorheis Electric Utilities

Paige Waggoner

Economic Development

Executive Committee

September 23, 2003

Mr. Kevin Ward, Executive Administrator Texas Water Development Board P.O. Box 13231 Austin TX 78711-3231

RE: WPG Review of Jeff Davis County UWCD Management Plan

Dear Mr. Ward,

On Thursday, September 18, the Far West Texas Water Planning Group reviewed the revised Jeff Davis County UWCD Management Plan for potential areas of conflict with the regional water plan, in accordance with the requirements of 31 TAC 356.6. No conflicts with the regional plan, Far West Texas Regional Water Plan, January 2001, were identified by the Planning Group.

Sincerely,

TOM BEARD Chairman

CC: Janet Adams, JDCUWCD Barbara Kauffman, RGCOG From: "Janet Adams" <fdwsc@overland.net>

To: "Rima Petrossian" <Rima.Petrossian@twdb.state.tx.us>

Date: 10/27/03 1:00PM

Subject: Availabilty

Jeff Davis County UWCD is using the recharge numbers totaling 6400 acft for the acft of available water for the District.

Thank you,

Janet Adams
General Manager
Jeff Davis County UWCD
Box 1203
Fort Davis, Texas 79734
432-249-0340 Cell
432-426-3441
fdwsc@overland.net