



IRION COUNTY WATER CONSERVATION DISTRICT

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TWDB
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August 28, 2003

Mr. Kevin Ward
Executive Administrator
Texas Water Development Board
1700 N. Congress
Austin, TX 78711-3231

Dear Mr. Ward:

The Irion County Water Conservation District (ICWCD) unanimously adopted the attached amended Management Plan as required by §36.1072(e) of the Texas Water Code at the regular Board Meeting on August 13, 2003. The amended plan and resolution were adopted after notice and public hearing.

The attached amended Management Plan contains copies of notices for the public hearing and board meeting, the resolution, and letter to, return receipt, and response from Region F.

If the TWDB has any questions or requires additional information, please contact me at (325) 835-2015, fax (325) 835-2366, or icwcd@airmail.net.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Holland".

Scott Holland
General Manager

Irion County
Water Conservation District
Management Plan

1998 - 2008

Adopted: August 19, 1998
Certified: September 17, 1998
Amended: August 13, 2003

Table of Contents

District Mission	3
Time Period for this Plan	3
Statement of Guiding Principles	3
General Description	3
Location and Extent	4
Regional Cooperation and Coordination	4
Edwards-Trinity (Plateau) Aquifer	6
Dockum Aquifer	6
Alluvium Aquifer	6
Groundwater Resource Estimates	7
Estimated Available Groundwater	7
Historic Groundwater Use	8
Historic Spring Flow	8
Estimated Groundwater Recharge	9
Projected Groundwater Demands	9
Projected Spring Flow Demands	9
Total Projected Groundwater Supply	9
Enhancement of Recharge and Availability	10
Management of Groundwater Supplies	13
Actions, Procedures, Performance and Avoidance for Plan Implementation	13
Methodology for Tracking Progress	14
Coordination With Surface Water Entities	14
Goals, Management Objectives and Performance Standards	15
Goal 1.0 - To Provide for the Efficient Use of Groundwater	15
Goal 2.0 - To Control and Prevent the Waste of Groundwater	16
Goal 3.0 - To Address Natural Resource Issues Impacting Groundwater	17
Goal 4.0 - To Address Drought Conditions	18
Goal 5.0 - To Address Conservation	18
Management Goals Determined Not-Applicable	19
Goal 6.0 - To Provide for the Control and Prevention of Subsidence	19
Goal 7.0 - To Provide for Addressing Conjunctive Surface Water Management Issues	19
Definitions and Concepts	20

District Mission

The Irion County Water Conservation District strives to conserve, preserve, and protect groundwater supplies, to protect and enhance recharge, to prevent waste and pollution, and to effect the efficient, beneficial and wise use of groundwater resources for the benefit of the citizens and economy of the District by monitoring water quality integrity and promoting conservation. The District also strives to maintain groundwater ownership and rights of the owners of the land and their lessees as provided in the Texas Water Code §36.002.

Time Period for this Plan

This plan becomes effective upon adoption by the Board of Directors and certification by the Texas Water Development Board. The plan remains in effect for ten years after the date of Board approval and TWDB certification, or until a revised or amended plan is approved and certified. 9

Statement of Guiding Principles

The District recognizes that groundwater resources are of the utmost importance for the economic benefit, first for the citizens of the District, and then the region, for all groundwater users. Also recognized is the importance of understanding the aquifers and aquifer characteristic for proper management of these resources. Integrity and ownership of groundwater are also recognized as important in the management of this precious resource. The primary goal of the District is to preserve the integrity of the groundwater in the district from all potential contamination sources, mainly oil and gas production and related activities. This is accomplished as the District sets objectives to provide for the conservation, preservation, protection, recharge, prevention of waste and pollution, and efficient use of water. These objectives are best achieved through guidance from the locally elected board members who understand the local conditions and can manage the resource for the benefit of the citizens of the district and region. The District shall seek to ensure maximum groundwater withdrawals do not exceed effective recharge.

General Description

The citizens of Irion County, recognizing the benefit of local control of groundwater resources and the importance of protecting the integrity of groundwater from potential contamination from the vast amount of oil and gas production and associated activities, introduced legislation in the 69th Regular Legislative Session (1985) for creation of the District. A confirmation election was held on August 24, 1985 with a 72% voter turnout and 97% of the voters approving the creation of the District and taxing authority.

In 2001 three individual landowners, who already owned land in the District, recognized the benefit of having all their property included in a groundwater conservation district petitioned the District to annex their land in Tom Green County. The Board of Directors accepted and approved the petitions expanding the territory of the District.

Government of the District is by a five member locally elected board. The directors serve staggered two year terms therefore each year the voters have an opportunity to voice approval or disapproval of the local management of their groundwater and/or the services provided by the District.

Current Board of Directors:

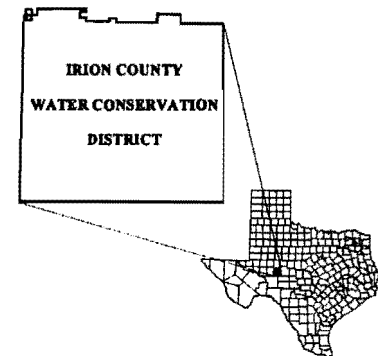
Dan McClung, Chairman
Bill McManus III, Secretary
Robert Richey

Bill Whitley, Vice-Chairman
Lad Linthicum

Location and Extent

The Irion County W.C.D. has an areal extent of 697,144 acres (1,089 square miles) in Irion and Tom Green Counties located in the west-central part of Texas. Elevation ranges from approximately 2,000 to 2,700 feet above mean sea level. Total population is 1771 including the Irion County Seat, the City of Mertzon (population 889).

The majority of the District overlies the Edwards-Trinity (Plateau) aquifer with exception of the alluvial areas along the Middle Concho River and its tributaries. Minor aquifers of Dockum and Alluvium are also present. The District is included in the Upper Colorado Region of the Colorado River Basin and in Region F, Regional Water Planning Group.

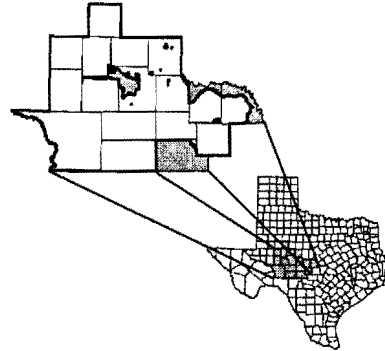


Regional Cooperation and Coordination

West Texas Regional Groundwater Alliance

In 1988, four groundwater conservation districts; Coke County UWCD, Glasscock County UWCD, Irion County WCD, and Sterling County UWCD signed an original Cooperative Agreement. As new districts were created, they too signed the Cooperative Agreement. In the fall of 1996, the original Cooperative Agreement was redrafted and the West Texas Regional Groundwater Alliance was created.

The regional alliance consists of twelve locally created and locally funded groundwater conservation districts that encompass almost 11.5 million acres or 17,800 square miles of West Texas. This West Texas region is as diverse as the State of Texas. Due to the diversity of this region, each member district provides it's own unique management programs to best serve its constituents.



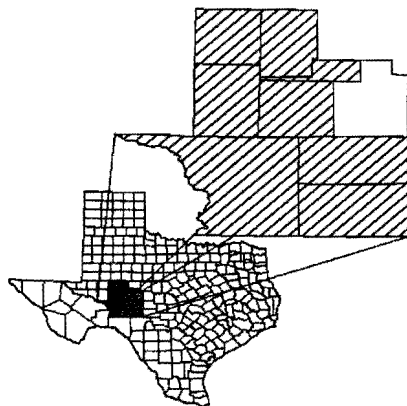
August 2003 member districts are:

- | | |
|-----------------------|--------------------|
| Coke County UWCD | Emerald UWCD |
| Glasscock County UWCD | Hickory UWCD # 1 |
| Irion County WCD | Lipan-Kickapoo WCD |
| Lone Wolf GCD | Menard County UWD |
| Plateau UWC & SD | Santa Rita UWCD |
| Sterling County UWCD | Sutton County UWCD |

This Alliance was created because the local districts have a common objective to facilitate the conservation, preservation, protection of groundwater supplies, protection and enhancement of recharge, prevention of waste and pollution, and beneficial use of water and related resources. Local districts monitor water-related activities which include but are not limited to the State's largest industries of farming and ranching and oil and gas production. The alliance provides coordination essential to the activities of these member districts as they monitor these activities in order to accomplish their objectives.

West Texas Weather Modification Association

In 1996, in response to the landowners of seven groundwater conservation districts, the West Texas Weather Modification Association was formed for the purpose of providing weather modification (cloud seeding) for rainfall enhancement throughout the geographical region of its members. The target area of the Association includes all of seven counties and part of another for a total area of over 6.4 million acres or 10 thousand square miles of West Texas.



Current membership include:

- | | |
|-----------------------|----------------------|
| City of San Angelo | Santa Rita UWCD |
| Emerald UWCD | Sterling County UWCD |
| Glasscock County UWCD | Sutton County UWCD |
| Irion County WCD | Plateau UWC & SD |

Recognizing the importance of increased amounts of rainfall in the region, this Association was formed to provide benefits from enhanced rainfall which include a reduction of groundwater withdrawals, increase in runoff, increase in agricultural productivity with the resulting economic impact for the region, provide additional recharge, and increase spring flow. These benefits are not only realized within the region but also downwind and down stream of the target area.

Edwards-Trinity (Plateau) Aquifer

The Edwards-Trinity (Plateau) aquifer underlies the Edwards Plateau east of the Pecos River and consists of saturated sediments of lower Cretaceous age Trinity Group formations and overlying limestones and dolomites of the Comanche Peak, Edwards, and the Georgetown formations. The aquifer generally exists under water table conditions, however, where it is fully saturated and a zone of low permeability occurs, artesian conditions may exist. Springs issuing from the aquifer form the headwaters for several eastward and southerly flowing rivers. The water levels have generally remained constant or have fluctuated only with seasonal precipitation.

Natural chemical quality of groundwater ranges from fresh to slightly saline. The water is typically hard and may vary widely in concentrations of dissolved solids made up mostly of calcium and bicarbonate. Water quality of the springs is typically excellent.¹

Dockum Aquifer

The Docum group underlies the Cretaceous formations in the northwestern Edwards Plateau region. The primary water-bearing zone is commonly called the "Santa Rosa". It consists of up to 700 feet of sand and conglomerate interbedded with layers of silt and shale. Recharge to the aquifer is negligible except in the outcrop areas. Concentrations of dissolved solids range from 1,000 ml/l in the eastern outcrop to more than 20,000 ml/l in the deeper parts of the western part of the aquifer. High sodium concentrations pose salinity problems in irrigated land and often exceed safe drinking water standards for municipal water supplies.²

Alluvium Aquifer

Alluvium occurs along the North and Middle Concho River and its tributaries. These deposits range in thickness from a few feet to as much as 250 feet with saturated thickness varying from less than 30 feet

¹ Water For Texas, Today and Tomorrow, August 1997, Texas Water Development Board.

² Ibid

to about 200 feet.³

Groundwater Resource Estimates

Estimates of groundwater availability, usage, supplies, recharge, storage, and future demands are from data supplied in the Region F Regional Water Plan, January 2001, or the Texas Water Development Board unless otherwise noted. Use of these TWDB estimates does not constitute endorsement by the District. These estimates will be used until alternate numbers are generated. No Groundwater Availability Model estimated data was available for inclusion in this amended plan due to the model not being completed as scheduled.

Estimated Available Groundwater (expressed as acre-feet)

In the Region F Regional Water Plan, January 2001, the region was divided into three availability categories: 1) limited to annual effective recharge only, 2) annual recharge plus an annual amount equal to 75 percent of the retrievable storage over 100 years, and 3) annual recharge plus an annual storage depletion equal to 75 percent of the retrievable storage over 50 years. The District recognizes the importance of maintaining groundwater availability for residents and maintaining spring flow and limits availability to effective recharge or safe yield.. Currently the District is participating in a recharge study to determine more accurate recharge or safe yield estimates.

River Basin	Aquifer	Recharge (Safe Yield)	Water Storage
Colorado	Edwards-Trinity	19,133	0
Colorado	Dockum	0	0
Colorado	Alluvium	N/A	N/A

data from Region F Regional Water Plan, January 2001, Table 3-1 Annual Groundwater Availability

³ Occurrence, Availability, and Chemical Quality of Ground Water in the Edwards Plateau Region of Texas, July 1979, Texas Department of Water Resources

Historic Groundwater Use (expressed as acre-feet)

2

Use	1991	1992	1993	1994	1995	1996	1997	Average
Municipal	204	212	218	225	210	220	228	217
Mining	4	4	4	4	129	129	126	128*
Irrigation	906	906	1161	1310	730	1036	990	1006
Livestock	344	325	306	300	328	258	301	309
Total	1458	1447	1689	1839	1400	1643	1645	1659

data from Region F Regional Water Plan, January 2001

* average for last three years only to reflect actual use

Historic Spring Flow (expressed as acre-feet)⁴

Historic Spring Flow was determined by utilizing surface flow measurements taken by the U.S.G.S. Measurements were not taken on a monthly basis or a regular set schedule and all gaging stations are located outside of the District. No allowances or adjustments were made for any loss, gain, or rainfall variances which might affect the surface flow from the springs to the gaging stations. Only surface flow measurements taken during the low usage months of October through March were used to determine an average spring flow. Both Dove Creek and Spring Creek have spring flow to sustain surface flow year around. The Middle Concho surface flow has a direct relation to the amount and type of rainfall events and has no established spring flow.

	1991	1992	1993	1994	1995	Average
Dove Creek	10,213	12,318	9,625	6,620	2,903	8,336
Spring Creek	9,944	2,352	9,908	2,831	3,172	5,641
Middle Concho	5,538	*	2,243	3,644	1,190	2,523
Total	25,695	14,670	21,776	13,095	7,265	16,500

* Non-typical year, data not used in total or average

⁴ U. S. Department of Interior - Geological Survey - Water Resources Division, San Angelo, TX.

Estimated Groundwater Recharge (expressed as acre-feet)

River Basin	Aquifer	Average 1991-95	2000	2010
Colorado	Edwards-Trinity (Plateau)	19,133	19,133	19,133
Colorado	Dockum	0	0	0
Colorado	Alluvium	N/A	N/A	N/A
	Total	*	*	*

N/A - Not available
 * Incomplete data

Projected Groundwater Demands (expressed as acre-feet)

Use	Average 1991-97	2010	2020
Municipal	217	254	243
Mining	128	129	129
Irrigation	1006	1310	1310
Livestock	309	401	401
Total	1659	2094	2083

data from Region F Regional Water Plan, January 2001

Projected Spring Flow Demands (expressed as acre-feet)

The projected spring flow demands are assumed to remain the same as the five year average. No variation in rainfall and/or recharge is factored into these projections.

Use	Average 1991-95	2000	2010
Spring Flow	16,500	16,500	16,500

Total Projected Groundwater Supply (expressed as acre-feet)

The total projected groundwater supply is the estimated sustainable annual yield, or effective recharge. The District follows the principle that demand should not exceed recharge to maintain dependable and sufficient groundwater supplies for future generations.

Use	Average 1991-97	2010	2020
Recharge	19,133	19,133	19,133
Less Groundwater Demand	(1,659)	(2,094)	(2,083)
Less Spring Flow Demand	(16,500)	(16,500)	(16,500)
Total	974	539	550

Enhancement of Recharge and Availability

The District supports both rainfall enhancement and brush control as management practices to maintain and improve groundwater supplies in the District and region. Benefits from both management practices can be summed up in a study done by Texas Tech University: "Private benefits include enhanced crop yields, livestock production due to forage increases and reduced irrigation cost. Social benefits include enhanced runoff and increased reservoir levels, downwind beneficiaries, secondary regional benefits (multiplier impact), improved water quality and reduced aquifer depletion."⁵

Weather Modification

6 Recharge of the aquifers is achieved through rainfall infiltration and can be enhanced by increasing the amount of precipitation received annually through weather modification (cloud seeding). Rainfall enhancement has been conducted by the Colorado River Municipal Water District, located in Big Spring, since 1970 with documented average 23% rainfall increase.⁶ The City of San Angelo conducted a program from 1985-1989 which resulted in a 26% rainfall increase.⁷

In 1996 the District was instrumental in forming the West Texas Weather Modification Association to perform rainfall enhancement for a target area covered by seven groundwater conservation districts (6,426,757 acres). During 2001 the district received an average of 18.48 inches or 103% of normal rainfall (17.85 in) while Midland only received 9.75 inches or 67% of normal rainfall (14.8). For 2002 the district received an average 16.71 inches or 94% of normal compared to 63% or 9.36 inches for Midland.

Under ideal conditions with 100% grass cover, 16% of rainfall absorbed into the ground surface infiltrates

⁵ Weather Modification: Private and Social Benefits and Costs, Texas Tech University, Lubbock, TX, August 1996, by James E. Jonish, Rasheed Al-Hmoud, and David Yoskowitz.

⁶ "1995 Weather Modification Program", Colorado River Municipal Water District, Report 95-1.

⁷ "Three Rainfall Augmentation Programs in Texas", by Don A. Griffith, The Journal of Weather Modification, April 1987.

beyond the root zone for potential recharge.⁸ Type and amount of ground surface covered by brush, rainfall event type (slow soaking or hard), and amount of rainfall per event will alter the amount of estimated recharge. The average rainfall for the District is 17.85 in/yr and 10.23 in the growing season⁹ from May through September when weather modification activities occur. A modest 10% increase (one inch) of rainfall during the growing season would result in a reduction of pumpage for all users, potential increase in runoff, increased productivity of crops and rangeland (thus improving the economy of the district and region), provide additional moisture infiltration below the root zone available for recharge, and increased spring flow. One inch of rainfall distributed over the entire District is equal to 56,673 ac-ft of rainwater. Estimated recharge is calculated using the TWDB formula: $\text{Rainfall(in)} \div 12 \times \text{acres} \times \% \text{infiltration rate} = \text{recharge}$

Using an infiltration rate of 1.88%¹⁰, increased rainfall would result in additional potential recharge as follows:

Increase During Growing Season (Average 10.23 in, May-Sept.)	10% Increase (1.0 in)	15% Increase (1.5 in)	23% Increase (2.3 in)
Additional Recharge Potential in ac-ft	1,065	1,598	2,450

The District is currently participating in a recharge study by collecting water level and rainfall data to be used for determining more accurate recharge estimates. It is the belief of the district that there is a direct correlation between rainfall events (amount, duration, and intensity) and actual recharge potential. Calculating recharge estimates solely by a percentage of total annual rainfall does not take into account individual rainfall events. For many small rainfall events there is no infiltration past the root zone for potential recharge and therefore should not be considered in recharge calculation.

Brush Control

Brush control can be accomplished by mechanical control, prescribed burn, chemical application, or combination of these methods. The control of mesquite and juniper, and other undesirable plants, would allow more rainfall to reach the soil surface. Benefits would include more rainfall absorption into the soil, increased productivity of rangeland (and resulting economic impact), and increased amount of moisture available to infiltrate as recharge.

⁸ "How an Increase or Reduction in Juniper Cover Alters Rangeland Ecology" and Justin W. Hester, 1997 Juniper Symposium, Technical Report 97-1, Texas A&M Research and Extension Service, by Thomas L. Thurow.

⁹ U.S. Department of Agriculture, Soil Conservation Service - Soil Survey of Irion County Texas.

¹⁰ Calculated from the estimated recharge amount from the TWDB.

A large mature juniper has an evapotranspiration rate of about 33 gal/day.¹¹ This same mature juniper only allows approximately 25% of rainfall to reach the soil surface due to canopy and litter interception. Approximately 16% of rainfall infiltrates beyond the root zone for potential recharge with 100% grass coverage.¹²

The following table demonstrates the water balance on rangeland at the Texas Agricultural Experiment Station, Sonora, TX.¹³

	100% Grass	70% Grass 12% Oak 18% Juniper	40% Grass 24% Oak 36% Juniper
Rainfall (inches)	22.6	22.6	22.6
Interception Loss (inches)	3.0	6.3	9.6
Water Reaching the Soil (inches)	19.6	16.3	13.0
Runoff (inches)	0.2	0.2	0.2
Water Going into the Soil (inches)	19.4	16.1	12.8
Evapotranspiration (inches)	15.7	15.8	12.8
Deep Drainage (Recharge)	3.7	0.3	0.0
Moderate Stocking Rate (au/sec)	34	22	11

The District has an estimated 75% brush cover¹⁴ which reduces potential recharge through canopy and litter interception of rainfall thus limiting available moisture for soil absorption. Brush control would allow more rainfall to reach the soil surface increasing available moisture for absorption into the soil and resulting in potential increase of deep infiltration and recharge.

Utilizing the percentage moisture available for deep drainage with 30% brush cover at the Texas Agriculture Experiment Station, Sonora, Texas of 1.3% and not taking into account the difference in brush type and coverage, soil type, amount and type of rainfall, or topography between Sutton and Irion Counties, a corresponding 50% reduction in brush cover over 75% of the District could potentially result in an

¹¹ "Biology and Ecology of Redberry Juniper", 1997 Juniper Symposium, Technical Report 97-1, Texas A&M Research and Extension Service , by Darrell N. Uehert.

¹² "How an Increase or Reduction in Juniper Cover Alters Rangeland Ecology" and Justin W. Hester, 1997 Juniper Symposium, Technical Report 97-1, Texas A&M Research and Extension Service , by Thomas L. Thurow.

¹³ Ibid

¹⁴ Natural Resources Conservation Service

additional recharge of:

	50% Reduction
Recharge Potential in ac-ft	9,946

The District is located within the State of Texas Brush Control Program, Upper Colorado/Twin Buttes Reservoir Watershed. Since the program was only started last year not enough time has elapsed to realize any results of additional spring flow or increase in groundwater availability.

Total Estimated Enhanced Recharge/Availability

Continuation of the rainfall enhancement program and implementation of a brush control program would result in the private and social benefits stated above and provide for an estimated additional recharge potential of:

	10% Increase (1.0 in)	15% Increase (1.5 in)	23% Increase (2.3 in)
Rainfall Enhancement	1,065	1,598	2,450
50% Brush Reduction	9,946	9,946	9,946
Total	11,011	11,544	12,396

Management of Groundwater Supplies

The District will monitor groundwater resources within the District to promote the conservation, preservation, protection, enhanced recharge, prevention or waste and pollution, and ensuring efficient use of the resource while seeking to maintain its integrity and the economic viability of all 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 in a reduction of groundwater use and/or enhanced recharge. An observation network shall be maintained in order to monitor changing quality and groundwater levels within the District. The District will employ all technical resources at its disposal and within budget constraints to evaluate the resources available within the District and to determine the effectiveness of management or conservation measures.

Actions, Procedures, Performance and Avoidance for Plan Implementation

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guide

for determining the direction and/or priority for all District activities. All operations of the District and all agreements entered into by the District will be consistent with the provisions of this plan.

The District has adopted rules for the management of groundwater resources and will amend those rules as necessary pursuant to TWC Chapter 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 effect or unique local character. In granting discretion to any rule, the Board shall consider the potential for adverse effect 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 cooperation in the implementation of this plan and the management of groundwater supplies within the District.

Methodology for Tracking Progress

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The methodology that the District will use to trace it's progress on an annual basis in achieving it's management goals will be as follows. The District holds a regular monthly Board Meeting for the purpose of conducting District business. Each month, the Managers Report will continue to reflect the number of meetings attended, number of water analysis samples collected and analyzed, resulting action regarding potential contamination or remediation of actual contamination, water levels monitored, reports on any school or civic group programs, fluid injection permit applications, and other matters of district importance. 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 at the first regular meeting of each fiscal year. The annual report will be maintained on file at the District Office.

Coordination With Surface Water Entities

Refer to Goal 7.0

Goals, Management Objectives and Performance Standards

The District recognizes the importance of public education to encourage efficient use, implement conservation practices, prevent waste, and preserve the integrity of groundwater.

Goal 1.0 - To Provide for the Efficient Use of Groundwater

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1.1. Management Objective

Each year the District will continue to provide, upon request, all available information on water conservation practices for the efficient use of water. These will include but are not limited to publications from the Texas Water Development Board, Texas Commission on Environmental Quality, Texas Agricultural Extension Service, and other sources. Each year the District will publish an article on efficient water use and availability of information materials.

1.1a. Performance Standard

Number of informational materials requested and distributed each year.

1.1b. Performance Standard

Number of articles published each year.

1.2. Management Objective

Each year the District will continue to perform a water quality analysis for residents of the District upon request. Each year the District will publish the availability of water analysis services in an article.

1.2a. Performance Standard

Number of water analysis requested and performed each year.

1.2b. Performance Standard

Number of articles published each year.

1.3. Management Objective

Each year the District will continue to collect a water sample, for partial chemical analysis, from new wells drilled within the District to establish location and a base line of water quality data for future reference.

1.3a. Performance Standard

Number of water samples collected and analyzed each year.

1.4. Management Objective

Each year the District will continue to monitor selected wells within the District for possible contamination problems which could jeopardize the integrity of the groundwater by collecting samples for selected chemical and biological parameter analysis.

1.4a. Performance Standard

Number of samples collected and analyzed each year.

1.4b. Performance Standard

Number of contamination problems each year.

1.5. Management Objective

Each year, the District will continue to monitor water levels in all selected wells within the District.

1.5a. Performance Standard

Number of water levels taken each year.

Goal 2.0 - To Control and Prevent the Waste of Groundwater

2.1. Management Objective

Each year the District will continue to provide, upon request, all informational materials and programs available for local civic groups to improve public awareness of conservation measures and wasteful practices. Each year the District will publish an article on conservation measures and wasteful practices and the availability of programs for civic groups.

2.1a. Performance Standard

Number of informational materials and programs requested and provided each year.

2.1b. Performance Standard

Number of articles published each year.

2.2. Management Objective

Each year the District will continue to cooperate with all schools within the district in providing all available information and programs on water conservation practices, water quality analysis, or other water issues, when requested. Each year the District will make a written or personal contact with school administration(s) or science department head(s) on the availability of District resources.

2.2a. Performance Standard

Number of informational materials or programs requested and provided each year.

2.2b. Performance Standard

Number of written or personal contacts each year.

Goal 3.0 - To Address Natural Resource Issues Impacting Groundwater

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3.1. Management Objective

Biannually, the District will continue to monitor all selected chemical and biological parameters for assessing water quality of the springs, creeks, and rivers within the District for possible contamination problems which would jeopardize the integrity of the water by collecting water samples for analysis.

3.1a. Performance Standard

Number of samples collected and analyzed biannually.

3.2. Management Objective

The District participates financially on a per acre basis in the West Texas Weather Modification Association for the purpose of enhancing rainfall for reduction of groundwater use, increased recharge of the aquifers, and economic benefit. Each year the District will continue to participate in the WTWMA, attend 95 % of the Board Meetings and continue to have all informational materials on rainfall enhancement activities, including but not limited to flight paths, rainfall summary images, and rainfall data, available for public viewing in the District Office

3.2a. Performance Standard

Number of WTWMA Board Meetings attended each year.

3.2b. Performance Standard

Number of informational materials available each year.

3.3. Management Objective

Each year the District will continue to provide, upon request, all informational materials and programs available for the local schools within the district, and local or other civic groups to provide all information on weather modification and arrange for tours of the WTWMA Office and facilities.

3.3a. Performance Standard

Number of requests for informational materials, programs and tours requested and provided each year.

3.4 .Management Objective

Each year the District will continue to monitor the San Angelo Standard Times public/legal notices for all “Notice of Application for Fluid Injection Well Permit” and the Irion County Clerk’s Office for all “Application for Fluid Injection Well Permit”. All newspaper notices of application and copies of all permit applications will be kept on file in the District Office.

3.4a. Performance Standard

Number of newspaper notices and permit applications on file each year.

3.5. Management Objective

The District will continue to determine if the “Application for Fluid Injection Well Permit” poses any threat to the integrity of groundwater or if the source of the water supply is of potable quality on an individual basis. Within 15 days the District will file an objection and/or a request for a public hearing for all “Application for Fluid Injection Well Permit” determined to pose a threat to the integrity of groundwater or if the source of the water supply is of potable quality.

3.5a. Performance Standard

Number of objections and/or hearing requests filed within 15 days.

34
36
37

Goal 4.0 - To Address Drought Conditions

4.1 Management Objective

The District will monitor the Palmer Drought Severity Index (PDSI) by Texas Climatic Divisions. If PDSI indicates that the District will experience severe drought conditions, the District will notify all public water suppliers within the District.

4.1a Performance Standard

Number of times the PDSI was monitored each year.

4.1b Performance Standard

Number of times public water suppliers contacted.

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Goal 5.0 - To Address Conservation

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5.1 Management Objective

This objective is closely related to Goals 1 and 2 on efficient use and waste. Each year the District will provide, upon request, all informational materials available and programs for local civic groups, the school and other interested parties to improve awareness of conservation measures. Each year the District will publish an article on conservation measures, wasteful practices and the availability of informational materials and programs in conjunction with Goals 1 and 2 because each pertains to the other.

5.1a Performance Standard

Number of informational materials and programs requested and provided each year.

5.1b Performance Standard

Number of articles published each year.

Management Goals Determined Not-Applicable

Goal 6.0 - To Provide for the Control and Prevention of Subsidence

The rigid geologic framework of the region precludes significant subsidence from occurring. This management goal is not applicable to the operations of the District.

22

Goal 7.0 - To Provide for Addressing Conjunctive Surface Water Management Issues

There are no surface water management entities within the District. This management goal is not applicable to the operations of the District.

26

Definitions and Concepts

“Board” - the Board of Directors of the Irion County Water Conservation District.

“District” - the Irion County Water Conservation District.

“Effective recharge” - the amount of water that enters the aquifer and is available for development

“Groundwater” - means water percolating below the surface of the earth.

“Integrity” - means the preservation of groundwater quality.

“Natural Recourse Issues” - includes groundwater integrity preservation

“Ownership” - pursuant to TWC Chapter 36, §36.002, means the recognition of the rights of the owners of the land pertaining to groundwater.

“Recharge” - the addition of water to an aquifer.

Safe yield” - maintaining a static level in the aquifer by limiting available supply to effective recharge.

“Surface Water Entity” - TWC Chapter 15 Entities with authority to store, take divert, or supply surface water for use within the boundaries of a district.

“TCEQ” - Texas Commission on Environmental Quality.

“TWDB” - Texas Water Development Board.

“Waste” - pursuant to TWC Chapter 36, §36.001(8), means any one or more of the following:

- (1) withdrawal of groundwater from a groundwater reservoir at a rate and in an 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;
- (3) 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 saltwater 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 any 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;
- (6) groundwater pumped for irrigation that escapes as irrigation tailwater 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; or
- (7) for water produced from an artesian well, “waste” has the meaning assigned by Section 11.205.

“Well” - means an artificial excavation that is dug or drilled for the purpose of producing groundwater.

TO WHOM IT MAY CONCERN:

The SPECIAL term of the Irion County Water Conservation District meeting will convene at 6:45 PM on the 13th day of AUGUST, 2003, in the Water District Office, in the Irion County Courthouse Annex in Mertzon, Texas. The purpose of this meeting is to transact any routine business in behalf of Irion County:

1. Any Person or Group wishing to speak to the Board on any item on the Agenda will be allowed 5 minutes.
2. Hearing on Amended Management Plan
3. Adjourn



Scott Holland, Manager

THE STATE OF TEXAS:

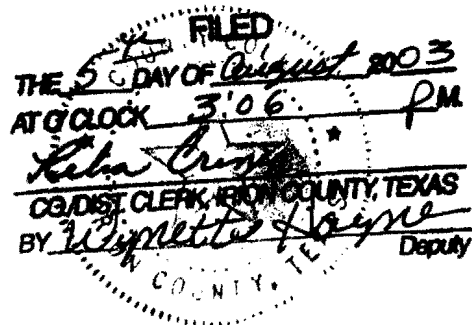
COUNTY OF IRION:

This is to certify that at the time and on the date stamped thereon, this notice of a meeting, a copy of which is attached hereto, has been filed in my office under File No. MM03-02 and was posted on the bulletin board in the Courthouse, as is required by Chapter 551, Government Code.

Executed on August 5, 2003

Reba Criner, County Clerk, Irion County, Texas

By 
Wynette Hayner, Deputy Clerk



TO WHOM IT MAY CONCERN:

The REGULAR term of the Irion County Water Conservation District meeting will convene at 7:00 PM on the 13th day of AUGUST, 2003, in the Water District Office, in the Irion County Courthouse Annex in Mertzon, Texas. The purpose of this meeting is to transact any routine business in behalf of Irion County W.C.D.:

1. Any Person or Group wishing to speak to the Board on any item on the Agenda will be allowed 5 minutes.
2. Approve Minutes - Decision Item
3. Pay Bills - Decision Item
4. Manager's Report - Decision Item
5. Adopt Amended Management Plan - Decision Item
6. TDLR Grant Contract Amendment - Decision Item
7. Approve Tax Collection Agreement FY 03-04 - Decision Item
8. FY 2003-04 Budget Workshop - Discussion Item
9. Propose FY 2003-04 Budget - Decision Item
10. Propose 2003 Tax Rate - Decision Item
11. Adjourn



Scott Holland, Manager

THE STATE OF TEXAS:

COUNTY OF IRION:

This is to certify that at the time and on the date stamped thereon, this notice of a meeting, a copy of which is attached hereto, has been filed in my office under File No. 11M03-061 and was posted on the bulletin board in the Courthouse, as is required by Chapter 551, Government Code.

FILED
THE 5th DAY OF August 2003
AT 0^o CLOCK 3:07 * PM
Reba Criner
CO. DIST. CLERK, IRION COUNTY, TEXAS
BY Wynette Hayner
Deputy

Executed on August 5, 2003

Reba Criner, County Clerk, Irion County, Texas

By Wynette Hayner
Wynette Hayner, Deputy Clerk

STATE OF TEXAS
COUNTY OF IRION

MANAGEMENT PLAN
1998-2008

10

WHEREAS, Irion County Water Conservation District is operating under the authority conferred upon it by the Acts of the 69th Legislature, Regular Session (1985), S.B. No. 206, and whose boundaries include all of Irion County and part of Tom Green County, Texas; and

WHEREAS, the District is required by Senate Bill 1 through Chapter 36, §36.1071, of the Texas Water Code to develop and adopt a new Management Plan; and

WHEREAS, the District is required by Senate Bill 1 to submit the adopted Management Plan to the Executive Administrator of the Texas Water Development Board for review and re-certification by September 1, 2003; and

WHEREAS, the District's new Management Plan shall be certified by the Executive Administrator if the plan is administratively complete; and

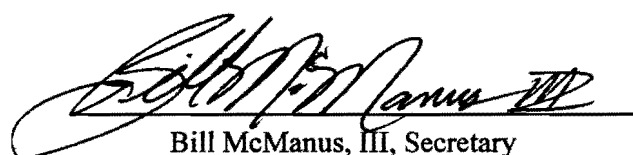
WHEREAS, the District Board of Directors, after reviewing the existing Management Plan, has determined that this plan should be replaced with an amended Management Plan; and

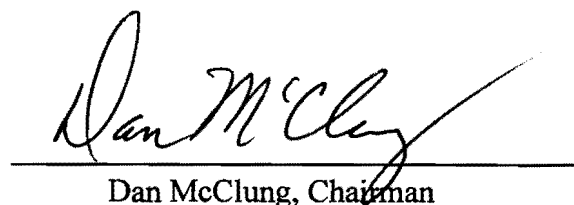
WHEREAS, the District Board of Directors has determined that the amended Management Plan addresses the requirements of Chapter 36, §36.1071.

NOW THEREFORE, Irion County Water Conservation District following notice and hearing, hereby adopts this amended Management Plan to replace the existing Management Plan; and

FURTHER, be it resolved, that this new Management Plan shall become effective immediately upon adoption and be reviewed and amended as necessary.

NOW THEREFORE WITNESSED and executed this 13th day of August, 2003.


Bill McManus, III, Secretary


Dan McClung, Chairman



IRION COUNTY WATER CONSERVATION DISTRICT

P.O. Box 10 Mertzon, TX 76941 OFFICE (325) 835-2015 FAX (325) 835-2366 e-mail: icwcd@airmail.net

August 19, 2003

Mr. John Grant
Chairman
Region F Regional Water Planning Group
P.O. Box 869
Big Spring, Texas 79721-0869

12

RE: Irion County WCD Management Plan

Dear Mr. Grant:

In 1998 the Irion County WCD adopted a 10 year management plan which was certified by the Texas Water Development Board on September 17, 2003. Under §36.1072(e), Texas Water Code the District must review and readopt the plan with or without revisions at least once every five years. The District has amended the plan and is submitting it to the Texas Water Development Board.

The District is required to submit a copy of the management plan to all Regional Water Planning Groups in which any part of the District is located. Therefore the District is submitting a copy of the amended management plan for review and comments.

Please review this management plan for any areas of conflict with the January 2003 Region F Regional Water Plan and submit your comments to the District by August 26, 2003. If you have any questions or want additional information, as you review this plan, please contact me at (325) 835-2015. I appreciate your attention and cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Holland".

Scott Holland
General Manager

enclosures

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Mr. John Grant
Region 8 Regional Water Planning
Group
P.O. Box 869
Big Spring TX
79721-0869

2. Article Number:
(Transfer from service label) **7002 2030 0000 2734 9917**

COMPLETE THIS SECTION ON DELIVERY

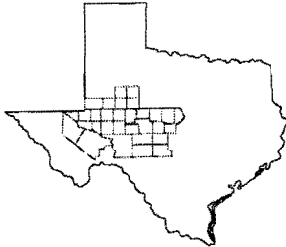
A. Signature: *X Ray Jones* Agent Addressee

B. Received by (Printed Name): *Ray Jones* C. Date of Delivery: *8/21/01*

D. Is delivery address different from item? Yes. No
If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes



Texas Water Development Board
Regional Water Planning
Region F Regional Water Planning Group

*Andrews, Borden, Brown, Coke, Coleman, Concho, Crane, Crockett,
Ector, Glasscock, Howard, Irion, Kimble, Loving, Martin, Mason,
McCulloch, Menard, Midland, Mitchell, Pecos, Reagan, Reeves, Runnels,
Schleicher, Scurry, Sterling, Sutton, Tom Green, Upton, Ward, Winkler*

Voting Members:

*Len Wilson,
Public, Andrews*

*Wendell Moody,
Public, Concho*

*Judge Marilyn Egan,
Counties, Runnels*

*Judge Johnny Jones,
Counties, Crockett*

*Will Wilde, Secretary
Municipalities, Tom Green*

*Charles Hagood, Jr.,
Municipalities, Kimble*

*John Gayle,
Municipalities, Scurry*

*Buddy Sipes,
Industrial, Midland*

*Kenneth Dierschke,
Agricultural, Tom Green*

*Bert Striegler,
Agricultural, McCulloch*

*Lowell Woodward,
Agricultural*

*Steven C. Hofer, V-Chair
Environmental, Midland*

*Caroline Runge,
Environmental, Menard*

*Stuart Coleman,
Small Business, Coleman*

*Andrew Valencia,
Elect. Gen. Utilities*

*Stephen Brown, At-Large
River Authority*

*John Grant, Chair
Water District*

*Scott Holland,
Water District, Irion*

*Cindy Cawley,
Water District, Schleicher*

*Larry Tumbough,
Water District, Reeves*

*Richard Gist, At-Large
Water Utilities, Brown*

August 21, 2003

Mr. Scott Holland
ICWCD
P.O. Box 10
Mertzon, TX 73641

Dear Mr. Holland,

We have received your amended management plan and will forward it to the Region F Regional Water Planning Group.

Best regards,

John Grant
Chair, Region F Regional Water Planning Group

**Regional Water Planning Area Project Manager Review of
Groundwater Conservation District Management Plan for
Conflicts With a TWDB Approved Regional Water Plan**

Review of the Groundwater Conservation District Management Plan for Conflict With TWDB Approved Regional Water Plan(s)	Yes	No
13(a). Did the District provide a letter by certified mail, return receipt requested to all Regional Water Planning Groups formed under authority of TWC §16.053 (c)) in which any part of the District is located, asking the Regional Water Planning Group to review the groundwater management plan and specify any areas of conflict with the Texas Water Development Board approved regional water plan? 31TAC §356.6 (a)(5)	✓ <i>vsc</i>	
13(b). Did any Regional Water Planning Group formed under authority of TWC §16.053 (c)) indicate any potential conflict between the groundwater conservation district management plan and a Texas Water Development Board approved regional water plan? 31TAC §356.6 (a)(5)		✓ <i>vsc</i>
13(c). Did reviewer identify any potential conflicts between the management plan and the Texas Water Development Board approved regional water plan? TWC §36.1071 (e)(4), 31TAC §356.6 (a)(5) [If answering Yes, please provide a written explanation]	<i>vsc or N/A</i>	
Signify an affirmative response with YES Signify a negative response with NO Signify that a checklist item is not applicable with (N/A)		

13
(a)

**AFFIRMATION OF COMPLETION OF THE GROUNDWATER CONSERVATION DISTRICT
MANAGEMENT PLAN REVIEW PROCESS BY TEXAS WATER DEVELOPMENT BOARD**

The undersigned does affirm and attest that the management plan submitted by:

Irion County Water Conservation District

has been reviewed and the contents of which have been found to fulfill the requirements of TWC §36.1071 (e)(4) and 31TAC Ch. 356.6 (a)5, as defined by the TWDB groundwater management plan review checklist.

Sherry Cordry

F

, Project Manager for Region _____

(Please Print Project Manager's Name)

(Project Manager's Signature)

Sherry Cordry

Date

10.06.03

TO: Rima Petrossian and Sanjeev Kalaswad,

RE: Irion County Water Conservation District Management Plan–potential conflicts with the
RWPG F 2001 Regional Water Plan (2001RWP-F)

FROM: Sherry Cordry

DATE: 10/06/03

No potential conflicts with the 2001 Region F RWP (2001RWP-F) were identified. However the District plan provides detailed springflow data that is not included in the 2001RWP-F and uses this data to estimate total groundwater supply.

1. Pages 8, 9, 10. Referenced historic groundwater use data is not in the plan - *Not in plan. How many numbers were determined is not clear.*
2. Page 8. FYI- Detailed historic spring flow data is not listed in the plan. - *OK*

SK.

The 2001RWP-F does not include any water management strategies supplied by groundwater from Irion County or the District.