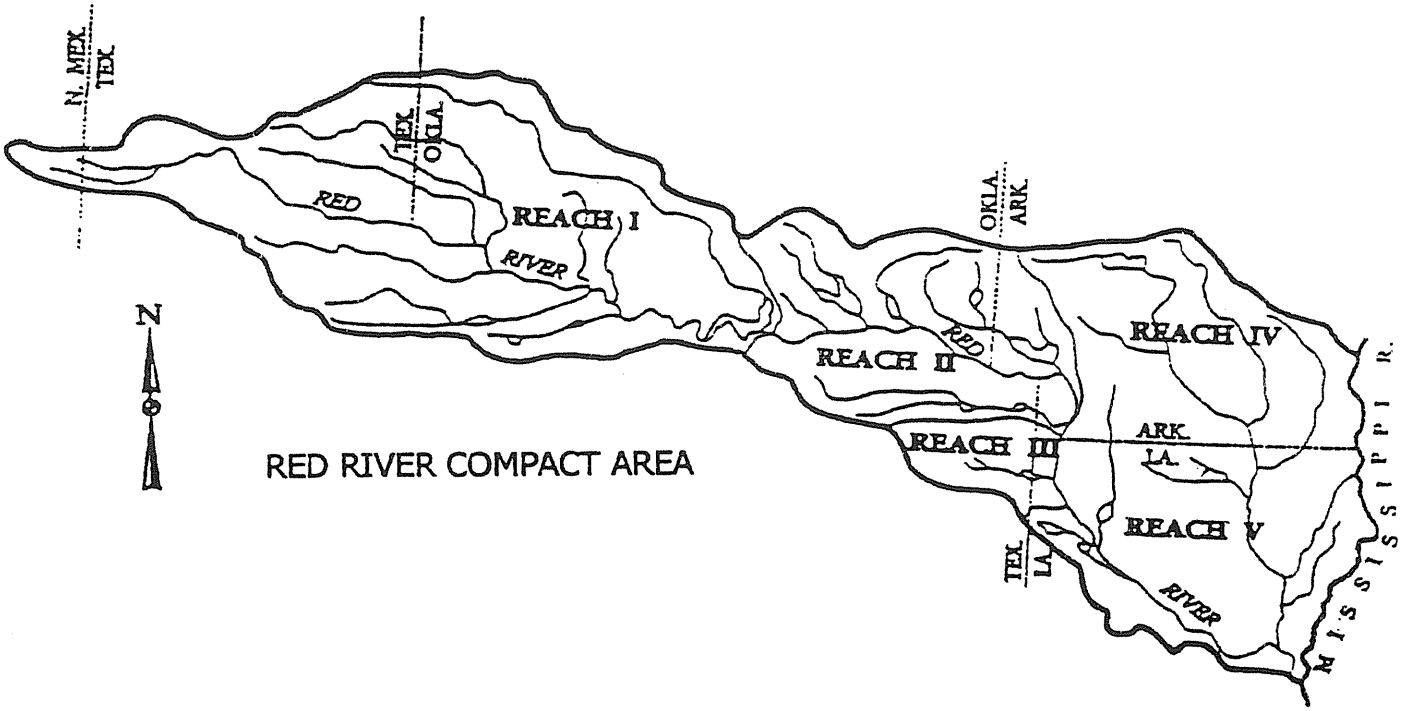
REPORT
OF THE

RED RIVER COMPACT COMMISSION 2008



Arkansas Louisiana Oklahoma Texas

Published
June, 2009

RED RIVER COMPACT COMMISSION

April 28, 2009

The President
United States of America

The Honorable Mike Beebe, Governor
State of Arkansas

The Honorable Bobby Jindal, Governor
State of Louisiana

The Honorable Brad Henry, Governor
State of Oklahoma

The Honorable Rick Perry, Governor
State of Texas

Dear Mr. President and Governors:

The Red River Compact is an interstate agreement entered into by the States of Arkansas, Louisiana, Oklahoma, and Texas with the consent of Congress dealing with the water resources of the Red River Basin.

Pursuant to Section 10.02 paragraphs (d) and (e) of the Red River Compact and as directed by the Red River Compact Commission (RRCC), the interstate body overseeing the Compact, the Compact at its twenty-eighth annual meeting submitted the report of the RRCC, together with an account of all funds received and expended in the conduct of its work for FY 2008 and a budget covering the anticipated expenses of the Commission for Fiscal Year 2009.

The State of Texas hosted the twenty-eighth annual meeting on April 22, 2008, in Marshall, Texas.

Pursuant to the previous agreements to rotate the office of Vice-Chairman and Secretary in connection with the rotation of the annual meeting host state, the State of Texas accepted the responsibility for both offices for FY 2008. The Office of Treasurer remained with the State of Arkansas.

Sincerely,

Gordon W. Fassett

Gordon W. Fassett
Chairman/Federal Commissioner

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MINUTES OF THE
28TH ANNUAL MEETING - RED RIVER COMPACT COMMISSION
APRIL 22, 2008 - MARSHALL CHAMBER OF COMMERCE, MARSHALL, TEXAS

I. Call To Order and Welcome

The Twenty-eighth Annual Meeting of the Red River Compact Commission was called to order at 9:15 AM, April 22, 2008, at the Chamber of Commerce, Marshall, Texas by Federal Commissioner and Chairman Gordon "Jeff" Fassett.

II. Commissioners

The Red River Compact Commissioners attending were:

Federal Chairman Gordon W. "Jeff" Fassett
J. Randy Young, Arkansas
Earl Smith, Arkansas, representing John Upton, Arkansas
Arthur Theis, Louisiana
Zahir "Bo" Bolourchi, Louisiana, representing Edmund Preau, Louisiana
Duane Smith, Oklahoma
Charles Dobbs, Oklahoma
Herman Settemeyer, Texas, representing Glenn Shankle, Texas
William A. Abney, Texas

III. Approval of Agenda

Chairman Fassett stated the agenda had been previously distributed, and asked if there were any additions to the agenda. Commissioner Abney moved that the order of Agenda be changed in regard to Item IX as to the Resolution to Adopt Rules and Regulations for Reach I, Subbasin 1 - Sweetwater Creek/North Fork Red River. Commissioner Duane Smith seconded the motion which was unanimously approved (Attachment 1).

IV. Approval of the Minutes of the April 24, 2007, Meeting

Chairman Fassett stated that the draft of the Minutes of April 24, 2007 meeting had been previously distributed and asked if there were any additions or deletions. There being none, Herman Settemeyer moved to approve the minutes as prepared and Commissioner Bill Abney seconded. The motion was unanimously approved (Attachment 2).

V. Report of the Chairman

Chairman Fassett reported that the Engineering Committee, by direction of the Commission, had forwarded a resolution to him regarding the support of funding for the USGS gaging network needed to administer the Red River Compact. The Chairman signed the resolution and returned copies to the Commissioners (Attachment 3).

VI. Report of the Treasurer

Earl Smith of Arkansas presented the Treasurer's report. He indicated that receipts totaled $2,241 and expenses totaled $11,951, ten thousand dollars of which was used to purchase a certificate of deposit that was approved at the last meeting. The real expenses amounted to $1952 and receipts took in about $300 dollars more than expenditures. The Treasurer indicated the major expenses of the Commission were the annual meeting and expense of printing annual reports. Motion was made to accept the Report of the Treasurer by Commissioner Young and was seconded by Commissioner Theis. The motion was unanimously approved (Attachment 4).

VII. Report of the Commissioners

Arkansas

Commissioner Earl Smith presented the Report of the Arkansas Commissioners:

Southeast Arkansas Feasibility Study- Work continues on the feasibility study that is being performed in conjunction with the U.S. Army Corps of Engineers, Vicksburg District. The options of the study will be incorporated in the final report, which will be finished in the next federal fiscal year.

Southwest Arkansas Navigation Study- Work continues on the study to extend navigation on the Red River into Southwest Arkansas.

Nonpoint Source Pollution Program- Past years efforts were focused on the education side of the program, now implementation has been the focus for the last four or five years. Best management practices and streambank stabilization type projects have been performed in the delta area. Attached is a copy of the Arkansas Commissioners' report (Attachment 5).

Louisiana

Commissioner Arthur Theis and Commissioner Zahir "Bo" Bolourchi presented the Report of the Louisiana Commissioners:

Work continues by the U.S. Army Corps of Engineers to rebuild levees in New Orleans. New levee

boards have been created in the aftermath of Hurricane Katrina.

Coastal Protection and Restoration Authority- This is the designated agency to represent Louisiana to work with the U.S. Army Corps of Engineers on the development of a coastal restoration plan and the restoration of the protection areas for Southeast Louisiana.

Red River Navigation Project - The U.S. Army Corps of Engineers is about 90 per cent complete with the development of the plans and studies to extend navigation above Shreveport on the Red River.

Mississippi Deepening Project- DOTD is the state sponsor for the Mississippi River to deepen the channel to 55 feet from the Gulf of Mexico to Baton Rouge.

Reservoir Developments Program- In 2007, the Louisiana Legislature approved a capital outlay program, which provides $20 million for a Water Resources Management Program along with statewide planning and construction. Attached is a copy of the Louisiana Commissioners' report (Attachment 6).

Oklahoma

Commissioner Duane Smith and Commissioner Charles Dobbs presented the Oklahoma Commissioners Report:

Fire resistant filing cabinet- Commissioner Dobbs stated that the putty colored, four drawer filing cabinets have been ordered but not yet received.

Oklahoma Comprehensive Water Plan- Commissioner Duane Smith stated that Oklahoma was in the second year of the $ 6.5 million legislative appropriation to the Water Resources Board to update the statewide Comprehensive Water Plan. An additional $6.5 million of matching federal funding for the plan was also secured.

Arbuckle-Simpson Aquifer Study- Work continues on the cooperative study with the U.S. Bureau of Reclamation to determine how much groundwater can be pumped from the aquifer while protecting the surface water. The results of this study will be ready by this summer.

Lake Texoma Advisory Committee Strategic Plan- The strategic plan for Lake Texoma will be presented at next year's meeting. Attached is a copy of the Oklahoma Commissioners' report (Attachment 7).

Texas

Commissioner Bill Abney and Herman Settemeyer presented the Texas Commissioners Report:

Commissioner Abney stated that he appreciated working with Oklahoma, specifically in regard to the great progress that has been made in the administration of the Red River Basin.

Caddo Lake - Commissioner Abney stated that the invasive species, giant salvinia (Salvinia molesta), native to South America, has become a significant problem in Caddo Lake. Solutions to control this invasive weed are currently being studied.

Texas Water Legislation - Herman Settemeyer presented information concerning Senate Bill 3, which changed the environmental review for water rights permitting in Texas from a case by case basis to an environmental standards by rule process. Senate Bill 3 also designated eighteen reservoir sites and ecologically unique rivers. Lake Ralph Hall and the Marvin Nichols reservoir sites are two such examples in the Sulphur River Basin.

Senate Bill 3 also contained a provision requiring the Texas Water Development Board to examine the impacts of climate change on the Rio Grande and the El Paso area.

Floodplain Management Program - The Floodplain Management Program that was originally with the Texas Commission on Environmental Quality has been transferred to the Texas Water Development Board.

Water Plan Update - The Texas Water Development Board has completed the 2007 update of the regional water plans and they are available online.

Edwards Aquifer Recovery Implementation Program - This is a consensus based initiative among stakeholders to participate in efforts to contribute to the recovery of the Edwards aquifer species, develop aquifer management measures and develop conservation measures. Attached is a copy of the Texas Commissioners' report (Attachment 8).

VIII. Report of the Committees

Budget

Earl Smith reported that the budget committee recommendation was to continue the current State Assessment of $550. Motion was made to continue the current State Assessment of $550 by Commissioner Settemeyer and was seconded by Commissioner Abney. The motion was unanimously approved (Attachment 9).

Legal Committee

Tom Bohl, Texas Attorney General's Office, substituted for Jane Atwood, who was unable to attend the meeting. Mr. Bohl stated that at last year's meeting, the Legal Committee and the

Engineering Committee were assigned by the Commission to develop and draft rules for Reach I, Subbasin I, Sweetwater Creek/ North Fork of the Red River. Texas put together a draft of the rules and these were circulated among the Committees. Texas received comments on the draft rules from Louisiana and Oklahoma. The Legal Committee met on April 21, 2008, and discussed the comments but did not produce a recommendation for the Commission. Subsequent to this, Texas and Oklahoma held discussions on the Reach I, Subbasin I rules for Sweetwater Creek and the North Fork of the Red River. Mr. Bohl stated that Texas Commissioner Bill Abney would make a proposal to the Commission for the Reach I, Subbasin I, rules for Sweetwater Creek/North Fork of the Red River later in this meeting.

Engineering Committee

Herman Settemeyer presented the Engineering Committee Report:

Annual Report- Oklahoma will finish the 2007 Annual Report now that the minutes from the 2007 annual meeting have been approved. Texas will produce the 2008 Annual Report from this meeting once the minutes are approved at next meeting.

Red River Interactive Maps - Mr. Settemeyer stated that the USGS currently has a very good map of the Red River Basin showing the locations of the streamflow gages. He stated that the Engineering Committee would like to see this map be included in the Red River Compact website, which is currently hosted by the Oklahoma Water Resources Board, and make the streamflow gage locations interactive with USGS gage data.

USGS Streamflow Gaging Network - No streamflow gages that are critical to the administration of the Red River Compact, that were listed in last year's resolution, are in jeopardy of bring discontinued due to funding issues.

Meeting with Congressional Delegation - Comissioners Abney and Settemeyer as well as Texas' Commissioner to the Pecos River Commission, Julian W. Thrasher, met with the congressional representatives from Texas and New Mexico last summer to discuss, and bring to their attention, the need to continue funding for USGS streamflow gages and the Chloride Control Project in the Red River Basin. Mr. Settemeyer also stated that New Mexico Senator Jeff Bingaman, Chairman of the Senate Energy and Resources Committee, has introduced a bill, known as the Secure Water Act. This proposed legislation provides significant funding to support the USGS streamflow gaging network and intream flow program.

Rules between Arkansas and Louisiana Concerning Reach IV, Subbasin 2 - Arkansas and Louisiana have drafted conceptual rules for Reach IV, Subbasin 2. Mr. Settemeyer asked Ken Brazil, Engineer Supervisor, Arkansas Natural Resources Commission, to report on the draft rules. Mr. Brazil stated that Arkansas and Louisiana are progressing on a conceptual monitoring framework that outlines the steps that Arkansas can take under existing Arkansas water law to address the provisions of the Compact for that reach. For Reach IV, Subbasin 2, there is a weekly runoff calculation that needs to

be made, as opposed to other areas of the Compact, where an annual calculation is made. There has been quite a bit of exploration on how to calculate the runoff and assure the accuracy and confidence in the numbers using the existing resources and current conditions in the basin.

USGS Runoff Model - Mr. Brazil stated that the USGS had provided a runoff model that could be used but it was cost prohibitive, even in the smallest subbasin within the reach.

Environmental and Natural Resources Committee

Herman Settemeyer stated that the Environmental Committee had drafted another resolution concerning the continuation of federal funding for the USGS streamflow gaging network that was the same as last year's resolution. He stated that it was important to remind the congressional delegation to maintain the USGS gaging network as a vital component for the administration of the Red River Compact. Commissioner Abney moved that the Commission pass the resolution that was identical to the one that was passed at last year's meeting. The motion was seconded by Commissioner Young. The motion was unanimously approved (Attachment 3).

Texas Water Quality Update - Mr. Settemeyer presented water quality information for Texas. The TMDL projects in the Red River Basin include Lake O' the Pines and Welsh Reservoir. Lake O' the Pines has depressed oxygen levels and is currently in an implementation plan to remediate the low levels of dissolved oxygen. Welsh Reservoir had elevated levels of selenium in fish tissues taken from the reservoir. It was concluded in 2004 that consumption of the fish taken from this reservoir did not constitute a threat to human health and this advisory was rescinded.

Texas 303(d) List - The Texas Commission on Environmental Quality has prepared it's updated 303 (d) list. This was finished on December 31, 2007, and it was submitted to the Environmental Protection Agency for approval. The 303(d) list can be found on this web site at www.texaswaterdata.org.

Draft Annual Assessment, Red River Authority - The Red River Authority of Texas has prepared it's draft annual assessment of the Red River Basin. This draft is available on the Red River Authority of Texas web site. It provides a comprehensive examination of the Red River Basin and the issues associated with the water quality within the basin.

Oklahoma Water Quality Update - Derek Smithee (Chief, Water Quality Programs, Oklahoma Water Resources Board) presented information regarding water quality projects with the Red River Basin.

Red River Basin - The Oklahoma Conservation Commission has an ongoing program to monitor water quality in the basin as part of a $1.3 million dollar project.

Fort Cobb Lake - Fort Cobb Lake is a small lake located in southwest Oklahoma. This has been the primary focus of a non-point chloride control project.

Cache Creek - Cache Creek is located just south of Lawton, Oklahoma. The Oklahoma Water Resources Board installed several stream gages to assist in the effort of flood forecasting.

Lake Texoma and Harmful Algae Blooms - Golden algae and blue-green algae blooms in Lake Texoma are being studied by the University of Oklahoma in conjunction with state and federal partners.

Red River Water Quality Data - University of Arkansas will begin to collect water quality data on the Red River. This will focus on Oklahoma, Texas, Arkansas and Louisiana developing nutrient criteria for the Red River.

TMDL Completed Projects in the Red River Basin - These TMDL projects in the Red River Basin were primarily for pathogens/bacteria. These included Boggy Creek, Little River, Ouchita River and the Lower Red. The Oklahoma Department of Environmental Quality completed these TMDL projects and they have been approved by the Environmental Protection Agency. The Oklahoma Department of Environmental Quality has recently submitted several new areas in the Upper Red River Basin for pathogens and toxins.

Chloride Control Project - Commissioner Duane Smith stated that Oklahoma worked with Senator Inhoff to get funding for the Chloride Control Project for Lake Texoma. The enabling language for the funding states that the chloride control construction and maintenance will be one hundred percent federal funding for Texas and Oklahoma.

Commissioner Duane Smith also stated that Oklahoma is also working with the U.S. Army Corps of Engineers on the feasibility analysis on the impacts of the Chloride Control Project in Oklahoma and the impacts at Lake Texoma. Commissioner Smith also stated that Governor Henry supports the Chloride Control Project.

Louisiana Water Quality Update - Max Forbes presented the Louisiana Water Quality Update.

Water Quality in the Red River - For years, the primary concern for Louisiana has been the chloride ion concentration. The water quality of the Red River in Louisiana, based on the near state line station north of Shreveport, is acceptable. The data from 2007-2008 showed that one determination had a chloride concentration of 258 milligrams per liter, exceeding the standard of 250 milligrams per liter. Fourteen other determinations had chloride concentrations less than 200 milligrams per liter. Dissolved oxygen is another concern and these were also at acceptable levels, all twelve determinations being above the 5.0 milligrams per liter standard.

Ouachita River Water Quality - On the Ouachita River, based on the state line station near Sterlington, the dissolved oxygen concentration continues to be acceptable there. Two

determinations out of seventeen were less than the 5.0 milligram per liter standard.

X. Federal Agency Reports

A. U.S. Army Corps of Engineers

Lake Texoma, Oklahoma and Texas Reallocation Study- Mike Abate of the Tulsa District stated that there has been positive movement on the reallocation study for Lake Texoma. The Tulsa District has received comments back from the U.S. Army Corps of Engineers headquarters and has reviewed them. The reallocation will involve converting 300,000 acre-feet of storage from the hydro power pool at Lake Texoma to water supply purposes.

Washita River Basin, Oklahoma - located in the southwest portion of Oklahoma. Federal interest was identified for feasibility level studies to solve the water resource problems within the study area.

Red River Chloride Control Project - Rich Bilinski of the Tulsa District presented an overview of the Red River Chloride Control Project (Attachment 10, U.S. Army Corps of Engineers Update).

Commissioner Duane Smith stated that Oklahoma has tried to create rules for Lake Texoma and the mainstem of the Red River. He added that the states would be interested in how Lake Texoma is apportioned and where that comes from before the U.S. Army Corps of Engineers enters into contracts with the cities.

Commissioner Abney reported that Texas submitted Rules for Lake Texoma two years ago to Oklahoma and have not received a response.

B. U.S. Bureau of Reclamation

John Gage of Oklahoma City office of the U.S. Bureau of Reclamation presented the following:

Arbuckle-Simpson Study - The USBR is assisting the State of Oklahoma with the Arbuckle-Simpson Water Management Study. This study is scheduled to finish this year or next.

Washita Basin Project, Fort Cobb Reservoir - The USBR is currently in the process of evaluating alternatives that would expand the capacity of the Fort Cobb Reservoir conveyance system.

Lake Altus Water Supply Augmentation - The USBR performed a study to look for additional water supplies from the North Fork of the Red River Basin.

Lake Thunderbird Reservoir - The USBR performed an augmentation study for Lake Thunderbird to use the reservoir as a re-regulating facility for supplemental water.
McPherson Water Availability Study - The USBR performed a study to look at recharging the Equus

Beds Aquifer using water from the Kanopolis Reservoir.

Native American Program- The Chickasaw Nation wants to build a demonstration artificial recharge project in the Arbuckle-Simpson Aquifer. The USBR is preparing a scope of work for this demonstration project (Attachment 11, USBR Update).

C. U. S. Geological Survey

Bob Blazs of the USGS Oklahoma City office presented trends in streamflow and statistics for the Red River (Attachment 12, USGS Update).

David Brown of the USGS Fort Worth, Texas, office presented a report on bromide ion in the Red River. This study was requested by the City of Dallas. Bromide is not a parameter that has been sampled before by the USGS in Texas. Sampling in the Red River began in February, 2007, and will continue through the remainder of 2008. Currently, the City of Dallas water treatment uses ozone as a disinfectant, which can oxidize bromide ion to bromate ion. The current U.S. Environmental Protection Agency drinking water standard for bromate ion is 10 parts per million, calculated as an annual average of monthly measurements.

Preliminary Results of the Study- After twelve months of sampling various locations in the Red River the following has been observed:

- Discharge can not be used as a measure of bromide ion content.
- The concentration of bromide ion varies with season. The months of June and July have the lowest concentrations of bromide ion in the Red River. This may be related to the releases of water from Denison Dam.
- There is some type of relationship of bromide ion and specific conductance.

D. Natural Resources Conservation Service

Paul Britt of the Natural Resources Conservation Service presented the following:
Report on the Farm Bill progressions - Conservation Practices on Farm and Ranch Land
Weather Reserve Program - Louisiana
Farm and Ranch Land maintain water supply
Grassland Resources Program
Ground Service and Water Conservation Program

Watershed Program - needs to reconstruct possibly using Red River water for irrigation (Attachment 13, Natural Resources Conservation Service Update).

IX. Presentation and Action on Resolution to Adopt - Rules and Regulations for Reach I,

Subbasin 1 - Sweetwater Creek/North Fork Red River

Commissioner Abney reported that changes needed to be made to the proposed Rules and Regulations and requested that the report be placed later in the Agenda. Request was granted and after hearing Federal Agency Reports, the Rules and Regulations for Reach I, Subbasin 1 - Sweetwater Creek/North Fork Red River were presented. Commissioner Abney made the motion to accept the Rules and Commissioner Duane Smith seconded. The motion was unanimously approved (Attachment 14).

XI. New Business

A. Annual Report

Herman Settemeyer gave an earlier report. Oklahoma will complete the 2007 annual report and Texas will have the responsibility to complete the 2008 annual report.

B. Assignments to Committees

Commissioner Duane Smith requested that the Engineering Committee review the watershed area calculations for the Sweetwater Creek/North Fork of the Red River Resolution and verify this calculation with the USGS.

Commissioner Duane Smith requested that the Engineering Committee work on the Lake Texoma Rules. This may also require collaboration with the Legal Committee.

Commissioner Herman Settemeyer requested that the Engineering Committee make the Red River Basin map interactive with the USGS streamflow gage information.

C. Election of Officers

Election of officers for the next fiscal year which begins July 2008:

Commissioner Duane Smith moved that Commissioner Theis be elected as Vice-Chairman of the Commission for next year. The motion was seconded and passed.

Commissioner Young moved that Earl Smith from Arkansas remain Treasurer for the Commission. Commissioner Abney seconded the motion and the motion passed.

D. Appointment of Committees

Commissioner Duane Smith requested that Walid Maher of the Oklahoma Water Resources

Board be placed on the Engineering and Budget Committees.

E. 29th Annual Meeting - Louisiana

Discussion occurred concerning next year's annual meeting. Commissioner Theis suggested the meeting be held in either Shreveport or another place. The decision was left to Commissioner Theis and he will contact each Commission Member of the time and place.

XIII. Other Business

XIV. Public Comment

No comments

XV. Adjournment

Motion was made and seconded to adjourn.

Gordon W. Fassett

Gordon W. "Jeff" Fassett, Federal Chairman

4/28/2009

Date

ATTACHMENT 1

RED RIVER COMPACT COMMISSION
28th ANNUAL MEETING
MARSHALL, TEXAS
9:00 am APRIL 22, 2008

I. Call to Order- Chairman Fassett

II. Welcome

III. Approval of the Agenda

IV. Approval of the Minutes of the April 24, 2007 Annual Meeting

V. Report of the Chairman

VI. Report of the Treasurer- Earl Smith, Arkansas

VII. Report of the Commissioners
- A. Arkansas
- B. Louisiana
- C.Oklahoma
- D.Texas

VIII. Report of the Committees
- A. Budget- Earl Smith
- B. Legal Advisory- Jane Atwood
- C. Engineering Advisory- Herman Settemeyer
- D. Environmental and Natural Resources Advisory- Herman Settemeyer

IX. Presentation and Action on Resolution to Adopt- Rules and Regulation for Reach I, Subbasin 1- Sweetwater Creek/North Fork Red River- Commissioner Abney

X. Federal Agency Reports
- A. U.S. Army Corps of Engineers
- B. U.S. Bureau of Reclamation
- C. U.S. Geological Survey- Bob Blazs
- D. Natural Resources Conservation Service

XI. Unfinished Business

XII. New Business
- A. Annual Report
- B. Assignments to Committees
- C. Election of Officers
- D. Appointments to Committees
- E. 29th Annual Meeting

XIII. Other Business

XIV. Public Comment

XV. Adjournment

ATTACHMENT 2

PROXY

RED RIVER COMPACT COMMISSION

THIS IS TO CERTIFY that I have designated and authorized EARL SMITH, Chief Water Resources Management, Arkansas Natural Resources Commission, to serve as my proxy for the Red River Compact Commission meetings and any committee meetings held in connection with the Red River Compact Commission, with full authority to act on my behalf as a voting member of the Commission until and including the 2008 annual meeting.

Effective April 21, 2008.

JOHN UPTON
ARKANSAS COMMISSIONER

PROXY

RED RIVER COMPACT COMMISSION

THIS IS TO CERTIFY that I have designated and do hereby authorize ZAHIR "BO" BOLOURCHI, Director, Water Resources Programs, to serve as my proxy for the Red River Compact Commission meetings and any committee meetings held in connection with the Red River Compact Commission, with full authority to act on my behalf as a voting member of the Commission

SIGNED at Baton Rouge, Louisiana, this 21st day of April, 2008.

EDMOND J. PREAU, JR., P.E.
ASSISTANT SECRETARY, DOTD
LOUISIANA COMMISSIONER, RRCC

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 3, 2008

Mr. Gordon W. "Jeff" Fassett
United States Commissioner and Chairman
Red River compact Commission
Fassett Consulting LLC
1720 Carey Avenue, Suite 612
Cheyenne, Wyoming 82001

Dear Chairman Fassett:

I regret that I am unable to participate in the Red River Compact Commission Annual meeting on April 21-22, 2008, due to commitments I must honor here at the agency. In my absence, I grant my support and proxy vote, as Commissioner of the Compact Commission, for any considerations of the Commission to Herman Settemeyer, Technical Advisor to the Commission and representative from Texas.

My best wishes to the Commission for a Successful meeting. I look forward to working with you on future Commission issues.

Sincerely,

Glenn Shankle, Executive Director
Texas Commission on Environmental Quality
Commissioner, Red River Compact Commission

cc: Herman Settemeyer, TCEQ, Technical Advisor to the Red River Compact Commission
William A. Abney, Commissioner, Red River Compact Commission

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

ATTACHMENT 3

RESOLUTION
OF THE
RED RIVER COMPACT COMMISISON

REGARDING
THEFUNDING OF STREAMFLOW GAGES

WHEREAS, the Red River Compact, signed May 12, 1978 and approved by Congress apportions the waters of the Red River basin between the States of Arkansas, Oklahoma, Texas and Louisiana;

WHEREAS, the four states have worked cooperatively together to develop and maintain the streamflow gaging network necessary to administer the provisions of the Compact;

WHEREAS, the cooperation and the establishment of this gaging network has resulted in the administration of this Compact with minimal controversy and no interstate litigation;

WHEREAS, the apportionment and administering calculations required by the Compact necessitate the maintenance of streamflow gages along the Red River and its tributaries at critical locations to measure the flow of water;

WHEREAS, it is critical for the administration of the Red River Compact that these streamflow gages be maintained;

WHEREAS, the U.S. Geological Survey (USGS) has historically entered into cost share agreements with cooperators to maintain a nationwide streamflow gage network through the Cooperative Water Program (CWP);

WHEREAS, the CWP has served for over 110 years as a federal/non-federal partnership which historically was funded through a 50/50 cost share agreement. Today, the majority of the funding for the CWP comes from non-federal sources;

WHEREAS, the ability to maintain this network of national gages to meet long term federal goals has declined due to a loss of cooperators because of the increased costs of funding which prompted Congressional establishment of the National Streamflow Information Program (NSIP);

WHEREAS, the USGS established goals to satisfy minimum national interest streamflow information needs with the intent to support these gages entirely with federal funds;

WHEREAS, a priority goal of NSIP is to "meet legal and treaty obligations on interstate compacts and international waters;"

WHEREAS, the streamflow gages necessary to administer the Red River Compact qualify under this priority goal for full federal funding under NSIP;

NOW, THEREFORE, BE IT RESOLVED that, the Red River Compact Commission requests that Congress fully fund the NSIP gages associated with the Red River basin and Red River Compact and the USGS place a priority on funding these gages under NSIP;

BE IT FURTHER RESOLVED that, federal funding for the CWP be restored to ensure the historical partnership match of 50/50;

BE IT FURTHER RESOLVED that, a copy of this resolution be sent to the members of the congressional delegations for the States of Arkansas, Oklahoma, Texas and Louisiana, the Secretary of the Interior, and the Director of the USGS.

Gordon W. "Jeff" Fassett
United States Commissioner and
Federal Chairman

April 22, 2008
Date Executed

Concurred to and supported by:

for
John Upton
Commissioner for Arkansas

J. Randy Young, P. E.
Commissioner for Arkansas

Arthur R. Theis, P.E.
Commissioner for Louisiana

For: Edmond J. Preau, Jr. P.E.
Commissioner for Louisiana

Charles Lynn Dobbs
Commissioner for Oklahoma

Duane A. Smith
Commissioner for Oklahoma

William A. Abney
Commissioner for Texas

For
Glenn Shankle
Commissioner for Texas

Red River Compact
Proposed Compact Supported Gages

Station Number	Station Name	Cost	Period of Record
	Arkansas Gaging Stations		
07337000	Red River at Index, AR	$ 18,280	1944 - 2007
07362000	Ouachita River at Camden, AR	$ 19,320	1928 - 2007
07364150	Bayou Bartholomew near McGehee, AR	$ 19,820	1939 - 2007
07369680	Bayou Macon near Eudora, AR	$ 13,900	1989 - 2007
07362100	Smackover Creek at Smackover, AR	$ 13,900	1962 - 2007
07363500	Saline River near Rye, AR	$ 14,400	1938 - 2007
07341500	Red River at Fulton, AR (Discontinued; $30,000 Start Up)	$ 49,300	1928 - 1981
07340000	Little River near Horatio, AR	$ 14,600	1969 - 2007
07340300	Cossatot River near Vandervoort	$ 14,580	1967 - 2007
	Louisiana Gaging Stations		
07344370	Red River at Springbank, Ark	$ 19,300	1995 - 2007
07348700	Bayou Dorcheat Near Spring Hill, LA	$ 13,000	1957 - 2007
07349860	Red Chute Bayou at Sligo, LA	$ 13,000	1980 - 2007
07351500	Cypress Bayou near Keithville, LA	$ 13,000	1939 - 2007
07352000	Saline Bayou near Lucky, LA	$ 13,000	1940 - 2007
07351750	Bayou Pierre near Lake end, LA	$ 13,000	1980 - 2007
	Oklahoma Gaging Stations		
07301110	Salt Fork Red River near Elmer, OK	$ 14,300	1979 - 2007
07307028	North Fork Red River near Tipton, OK	$ 14,300	1983 - 2007
07311500	Deep Red Creek near Randlett, OK	$ 14,300	1949 - 2007
07315700	Mud Creek near Courtney, OK	$ 14,300	1960 - 2007
07316000	Red River near Gainesville, TX	$ 14,300	1936 - 2007
07331000	Washita River near Dickson, OK	$ 14,300	1928 - 2007
07331600	Red River at Denison Dam nr Denison, TX	$ 14,300	1924 - 2007
07332500	Blue River near Blue, OK	$ 14,300	1936 - 2007
07335300	Muddy Boggy Creek near Unger, OK	$ 14,300	1982 - 2007
07336820	Red River near De Kalb, TX	$ 14,300	1968 - 2007
07338500	Little River blw Lukfata Creek, nr Idabel, OK	$ 14,300	1946 - 2007
07339000	Mountain Fork near Eagletown, OK	$ 14,300	1924 - 2007
	Texas Gaging Stations		
07299540	Praire Dog Town Fork of the Red R near Childress, TX	$ 21,600	1965 - 2007
07300000	Salt Fork Red R near Wellington, TX	$ 14,400	1952 - 2007
07301300	North Fork Red River near Shamrock, TX	$ 14,400	1967 - 2007
07308200	Pease River near Vernon, TX	$ 14,400	1959 - 2007
07308500	Red River near Burkburnett, TX	$ 14,400	1960 - 2007
07312700	Wichita River near Charlie, TX	$ 14,400	1967 - 2007
07315500	Red River near Terral, TX	$ 14,400	1938 - 2007
07332620	Bois D'Arc Creek at FM 1396 near Honey Grove, TX	$ 14,400	2006 - 2007
	Total Support Funding Requested	**$ 556,400**	

ATTACHMENT 4

Report of the Treasurer
Before the Red River Compact Commission
April 22, 2008

This report covers July 1, 2006 through June 30, 2007.

Bank Balance per 06/23/2007 was $17,731.62.

RECEIPTS

Member Assessments	$ 2,200.00
Dividend Income	$ 41.04
TOTAL	$ 2,241.04

EXPENSES

Purchase of Certificate of Deposit	$10,000.00
Audit	$ 275.00
Printing	$ 1,614.44
Postage	$ 62.62
Annual Meeting	
TOTAL	$11,951.46

Bank Balance per 3/20/2008 was	$7,911.22
Certificate of Deposit per 4/30/07 ($10,000) to 12/30/07	$10,344.62
TOTAL	$18,255.84

Cash Flow

7/1/2006 through 6/30/2007

Category Description	7/1/2006-6/30/2007
INFLOWS	
Assessment	2,200.00
Div Income	41.04
TOTAL INFLOWS	**2,241.04**
OUTFLOWS	
Annual Audit	275.00
Certificate Of Deposit	10,000.00
Postage	62.02
Printing-Report	1,614.44
TOTAL OUTFLOWS	**11,951.46**
OVERALL TOTAL	**-9,710.42**

Register Report - All Dates

4/30/2007 through 4/7/2008

Date	Account	Num	Description	Memo	Category	Clr	Amount
BALANCE 4/29/2007							**0.00**
4/30/2007	CD Certificate...		Opening Bala...		[CD Certificat...	R	10,000.00
7/27/2007	CD Certificate...	DEP	Metropolitan ...				128.40
9/30/2007	CD Certificate...	DEP	Metropolitan ...				88.60
12/30/2007	CD Certificate...	DEP	Metropolitan ...		Certificate Of ...		127.62
4/30/2007 - 4/7/2008							**10,344.62**
BALANCE 4/7/2008							**10,344.62**

TOTAL INFLOWS	**10,344.62**
TOTAL OUTFLOWS	**0.00**
NET TOTAL	**10,344.62**

Register Report

6/30/2006 through 4/16/2008

Date	Account	Num	Description	Memo	Category	Clr	Amount
BALANCE 6/29/2006							**17,731.62**
7/26/2006	Red River ...	DEP	Regions Ba...	July 2006	Div Income	R	4.01
8/23/2006	Red River ...	DEP	Regions Ba...	August 20...	Div Income	R	3.40
9/26/2006	Red River ...	DEP	Regions Ba...	Septembe...	Div Income	R	4.13
10/25/2006	Red River ...	DEP	Regions Ba...	October 2...	Div Income	R	3.52
11/8/2006	Red River ...	1005	Arkansas D...		Printing-Re...	R	-568.68
11/24/2006	Red River ...	DEP	Regions Ba...	November...	Div Income	R	3.58
12/13/2006	Red River ...	1006	FEDEX	Mail 2005 ...	Postage	R	-62.02
12/26/2006	Red River ...	DEP	Regions Ba...	December...	Div Income	R	3.76
1/25/2007	Red River ...	DEP	Regions Ba...	January 2...	Div Income	R	3.52
2/8/2007	Red River ...	DEP	Arkansas	2007	Assessment	R	550.00
2/8/2007	Red River ...	DEP	Louisiana	2007	Assessment	R	550.00
2/9/2007	Red River ...	1007	Johnson, B...	2006	Annual Audit	R	-275.00
2/26/2007	Red River ...	DEP	Regions Ba...	February ...	Div Income	R	3.87
2/28/2007	Red River ...	DEP	Texas	2007	Assessment	R	550.00
3/23/2007	Red River ...	DEP	Regions Ba...	March 2007	Div Income	R	3.16
4/24/2007	Red River ...	DEP	Regions Ba...	April 2007	Div Income	R	4.05
5/1/2007	Red River ...	1008	Metropolita...		Certificate ...	R	-10,000.00
5/17/2007	Red River ...	DEP	Oklahoma	2007	Assessment	R	550.00
5/23/2007	Red River ...	DEP	Regions Ba...	May 2007	Div Income	R	2.13
6/5/2007	Red River ...	1010	Kinco's	Annual Re...	Printing-Re...	R	-1,045.76
6/25/2007	Red River ...	DEP	Regions Ba...	June 2007	Div Income	R	1.91
7/9/2007	Red River ...	1009	FEDEX	Mail 2006 ...	Postage	R	-122.70
7/25/2007	Red River ...	DEP	Regions Ba...	July 2007	Div Income	R	1.64
8/23/2007	Red River ...	DEP	Regions Ba...	August 20...	Div Income	R	1.56
9/26/2007	Red River ...	DEP	Regions Ba...	Septembe...	Div Income	R	1.84
10/24/2007	Red River ...	DEP	Regions Ba...	October 2...	Div Income	R	1.52
11/27/2007	Red River ...	DEP	Regions Ba...	November...	Div Income	R	1.84
12/6/2007	Red River ...	DEP	Regions Ba...	December...	Div Income	R	0.49
12/19/2007	Red River ...	DEP	Regions Ba...	December...	Div Income	R	0.70
1/22/2008	Red River ...	DEP	Regions Ba...	January 2...	Div Income	R	1.84
2/20/2008	Red River ...	DEP	Regions Ba...	February ...	Div Income	R	0.66
3/20/2008	Red River ...	DEP	Regions Ba...	March 2008	Div Income	R	0.63
4/10/2008	Red River ...	DEP	Regions Ba...		Div Income	R	0.00
6/30/2006 - 4/16/2008							**-9,820.40**
BALANCE 4/16/2008							**7,911.22**

TOTAL INFLOWS	**2,253.76**
TOTAL OUTFLOWS	**-12,074.16**
NET TOTAL	**-9,820.40**

Income/Expense Comparison by Category:11

7/1/2006 through 4/15/2008

Category Description	7/1/2006-6/30/2007	7/1/2007-4/15/2008	Amount Difference
INCOME			
Uncategorized	0.00	217.00	217.00
Assessment	2,200.00	0.00	-2,200.00
Div Income	41.04	12.72	-28.32
TOTAL INCOME	**2,241.04**	**229.72**	**-2,011.32**
EXPENSES			
Annual Audit	275.00	0.00	275.00
Certificate Of Deposit	10,000.00	-127.62	10,127.62
Postage	62.02	122.70	-60.68
Printing-Report	1,614.44	0.00	1,614.44
TOTAL EXPENSES	**11,951.46**	**-4.92**	**11,956.38**
OVERALL TOTAL	**-9,710.42**	**234.64**	**9,945.06**

ATTACHMENT 5

RED RIVER COMPACT COMMISSION
STATE OF ARKANSAS
COMMISSIONER'S REPORT
2008

Southeast Arkansas Feasibility Study

The Vicksburg District is continuing water supply analyses for the salt areas in the southern portion of the study area. These efforts include value engineering analyses of options: 1) to remove excess flood flows through the Lake Chicot Pump Station, and 2) to import water from the Mississippi River. The Corps' environmental team is developing objectives for evaluation and finalization of ecosystem restoration component of the project.

The final array of alternatives is scheduled to be completed midsummer 2008. These final combination plans will incorporate stakeholder and irrigation district input. The Corps' will evaluate these alternatives for 8 to 9 months and select a "recommended plan". The remainder of the study will focus efforts on evaluation of the "recommended plan".

Southwest Arkansas Navigation Study

Work continues on completion of Feasibility Phase of project.

NONPOINT SOURCE POLLUTION PROGRAM

Priority Watershed Program

The Arkansas Natural Resources Commission NPS Management Plan is being implemented with emphasis on results through enhanced monitoring.

ATTACHMENT 6

RED RIVER COMPACT COMMISSION

STATE OF LOUISIANA
Commissioner's Report

Greater Marshall Chamber of Commerce
Marshall, Texas
April 22, 2008

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J. BENNETT JOHNSTON WATERWAY, RED RIVER NAVIGATION PROJECT

According to the Corps of Engineers, Vicksburg District, the project is over 90% complete. Much of the remaining work includes refining the revetment and dike system to provide a safe and reliable navigation alignment and to reduce maintenance cost, development of the remaining recreation features as per the master plans and cost-sharing agreements and completion of the required mitigation portions of the overall project.

The Red River Waterway Commission, the local project sponsor, is moving forward at present with recreation and economic development of the Red River. Other on-going projects are the acquisition of mitigation lands and wildlife management development, revetments, and realignments.

Port development continues to be a major priority of the Red River Waterway Commission. The Commission is currently involved with the port commissions of the District on several projects that rely on their financial assistance so that they can come to fruition to help the local economy.

According to official waterborne commerce statistics for 2004, movement of about four million tons was reported. The four operating public port facilities (Port of Shreveport-Bossier, Red River Parish Port - near Coushatta, Port of Natchitoches and Alexandria Regional Port) have over $175 million of infrastructure in place to handle this traffic. In addition to the public ports, private investment has occurred along the river to exploit the economic potential of the navigation pools.

Flooding problems in the Red Chute Bayou area north of Bossier City are being addressed and a plan of improvement has been authorized to minimize flood damages in this region.

The feasibility of extending the Red River Navigation Project into southwest Arkansas should be completed in 2008. The Arkansas Red River Commission is study sponsor.

ACADIANA GULF OF MEXICO ACCESS CHANNEL PROJECT

DOTD is the sponsor of the Acadiana Gulf of Mexico Access Channel (AGMAC) Project. It

will provide a deeper channel to access the Gulf of Mexico from the Port of Iberia. Offshore oil and gas exploration in deep Gulf waters requires larger platforms that are manufactured at the Port of Iberia. This is a Corps of Engineers project and a Chief's Report was issued in December 2006. It was authorized in WRDA 2007 and is now in the PED phase.

PORT OF WEST ST. MARY

DOTD is the sponsor for the deepening of the Gulf Intracoastal Waterway from the Port of Iberia to the Port of West St. Mary. This project will extend the AGMAC project. The Section 203 study has been sent to Headquarters for approval.

MISSISSIPPI RIVER DEEPENING PROJECT

DOTD is the assuring agency for the deepening of the Mississippi River to 55 feet from Baton Rouge to the Gulf of Mexico. The mitigation of salt water intrusion affecting the water supply of Plaquemines Parish is complete. The Chief of Engineers has recommended that the 25% non-Federal cost share for construction be extended for projects from 45 feet to 55 feet and that the cost of maintenance remain at 100% for the Federal share. This project is presently on hold until cost-sharing language is changed in WRDA.

HOUMA NAVIGATION CANAL DEEPENING

DOTD is the sponsor for the deepening of the Houma Navigation Canal. This project is similar to the AGMAC. It will provide a deeper channel for larger oil and gas structures fabricated at the port to access the Gulf of Mexico.

BAPTISTE COLLETTE

DOTD is the sponsor for the deepening study of Baptiste Collette Bayou. The purpose of this project is to provide a deeper access channel to the Gulf of Mexico for the offshore oil and gas supply vessels to the Gulf of Mexico. As the oil and gas industry moves to deeper water the supply vessels get bigger and require deeper draft.

HURRICANE FLOOD PROTECTION PROGRAM

On Monday, August 29, 2006, at 6:30 AM, Hurricane Katrina made landfall as a Category 3 storm in Plaquemines Parish, Louisiana. The eye of the hurricane measured approximately 38 miles in diameter. A storm buoy located in the Central Gulf of Mexico measured a wave at 104 feet high.

The storm surge overtopped and breeched levees throughout St. Bernard and portions of Plaquemines and Jefferson parishes. Later the same day, levees along the 17th Street Canal, South London Avenue Canal, and Industrial Canal failed and flood waters began to inundate a large section of New Orleans, eventually covering about 80% of the city.

On September 24, 2005, less than 30 days later, hurricane Rita made landfall as a Category 3 storm east of Sabine Pass. Rita produced a significant storm surge along the southwestern Louisiana coast inundating virtually all of Cameron Parish and a majority of Vermilion Parish. Coastal communities were inundated by a storm surge estimated at 15 feet. Surge water pushed into Calcasieu Lake, flooding portions of communities along its shoreline under several feet of saline water. The surge then propagated up the Calcasieu River and flooded portions of the Lake Charles area,. where the surge reached Interstate 10, about 25 miles from the Gulf coast. The storm surge wiped out entire communities such as Holly Beach, Grand Chenier, and Pecan Island.

Many lessons were learned. The State of Louisiana created the Coastal Protection and Recovery Authority (CPRA) which has developed a master plan for the state's coastal restoration and hurricane protection. This authority will provide oversight of the implementation and funding of this comprehensive plan as well as a more rigorous levee inspection program. DOTD has now established a Hurricane Priority Program and has developed a levee inspection school for levee inspectors, Operations & Maintenance procedures and levee inspection requirements. In 2006 DOTD trained 110 levee district inspectors in the basic visual techniques to identify potential levee problems, and to properly document the inspection in a standardized report format. DOTD and the La. Department of Natural Resources, partnered with LSU to develop a comprehensive "Levee School" that was attended by Levee Board commissioners, levee district staff, news media, and university professors. The inaugural was held Nov. 28-30, 2007; and followed with a one day after action critique in February 2008 to prepare for another session in the fall of 2008.

The breached levees were repaired by the Corps of Engineers to pre-Katrina condition before June1, 2006. Temporary closure gates have also been installed at each of the three canals that were breeched. In addition to the repair work, congress has provided the Corps with initial funding to raise the level of hurricane protection for the New Orleans urban area, and to construct permanent gates at the outfall canals and two additional flood control gates in key navigation waterways. Life is slowly returning to near normal in some parts of the city, but full recovery is still a long way away.

RESERVOIRS DEVELOPMENT PROGRAM

Since 1991, the Louisiana Legislature has, through the Capital Outlay Program, approved funding for the design and construction of 11 reservoirs in Ouachita, Morehouse, Richland, Caldwell, Union, Allen, LaSalle, Franklin, and Washington Parishes. Since 1991, a total of $53.0 million has been appropriated for the reservoir projects, $51.6 million of which has already been encumbered or spent. Also, continuation of funding for a reservoir in Concordia Parish has been approved and its site selection has been completed. The program is providing planning and construction funds for the Lake D'Arbonne Alternative Spillway project located in Union Parish and for the repairs to the structure at Turkey Creek Dam located in Franklin Parish.

The Capital Outlay Program is also providing $20 million for Water Resources Management Program, Studies, Planning and Construction (Statewide). The program will require that a water resources management program master plan be developed and applicable rules and regulations will have to be prepared and promulgated.

DAM SAFETY PROGRAM

Louisiana's Dam Safety Program has been approved by FEMA under the Community Rating System (CRS). Having exceeded all pertinent requirements of the National Dam Safety Act of 1996, the Program is ranked No. 3 in the nation, according to Community Rating System Report Data Team. The Program received $37,456 in FEMA grant funds for F.Y. 2007-2008. The FEMA grant funds were used to supplement State funds to continue with the preparation of breach analyses and emergency action plans (EAPs) for five State-maintained dam, and to reimburse supplies and travel expenses related to the statewide dam inspections. To date, four of the five EAP are complete with the remaining one to be completed by the end of the F.Y. 2007-08, June 2008. There are presently 542 regulated dams in the dam inventory data base.

A total of 126 of the 150 dams to be inspected in F.Y. 2007-08 have been performed as of April 2007 with the remaining 24 dams to be inspected by the end of F.Y. Subsequently, inspection reports were prepared, uploaded to a server and hard-copies submitted to owners for their information and use in remedial activities.

DAM REPAIRS

The Capital Outlay Program is providing $1.9 million for Rehabilitation and Repair of some State Owned Reservoirs and Dams. Presently, engineering plans are being prepared for Lower Anacoco Lake to replace the drawdown gates, repair areas in the spillway slab and patch spalled concrete areas. Construction contracts have been awarded for the Lake Bistineau Erosion Control project and remediation of Vernon Lake Dam, to replace the drawdown gates, repair areas in the spillway slab and patch spalled concrete areas.

DOTD is working with Union Parish to perform underwater inspection, evaluation and recommendation for Lake D'Arbonne Dam, using acoustic imaging and profiling to identify and evaluate the extent of critical structural repair needs. All field work is complete and a final report is pending. Subsequently, underwater inspections will be performed on the remaining 19 State-maintained dams. This work is currently being advertised and scheduled to be completed with the next two years.

BREACH ANALYSES & EAPs

Contracts with two engineering consultants to prepare breach analyses and Emergency Action Plans (EAPs), for the 20 state-maintained dams are continuing. To date, 19 breach analyses and EAPs have been completed with one remaining. The remaining one will be completed by June 2008. Additionally, Emergency Action Plan (EAP) Table-top exercises have been held in a number of Districts throughout the State.

PORT CONSTRUCTION AND DEVELOPMENT PRIORITY PROGRAM

Approximately $444.9 million of state funds have been committed through the Port Construction and Development Priority Program since it was created in 1989, funding 172 projects. Two hundred fifty nine separate contracts have been completed. Most projects are constructed with more than one construction contract. When all of the funded projects are completed, they will produce over $3.1 billion in benefits and will have created or retained 10,859 permanent jobs. This represents a return of $6.97 in port related benefits for every state dollar invested. The funding for FY 08-09 is anticipated to be $62 million.

FEDERAL PROGRAMS

DOTD is currently the Non-Federal Sponsor with the US Army Corps of Engineers (USACE) in the planning, design, and construction of six (6) flood control projects. These projects will provide protection from various storm events, including hurricane and tidal flooding, and flooding from high waters. The estimated total costs of these projects are currently projected to be over $5 billion during the next 20 years. These projects are West Bank and Vicinity Hurricane Protection, Morganza to the Gulf of Mexico, Donaldsonville to the Gulf of Mexico, Alexandria to the Gulf of Mexico, Mississippi River Levees and Berms, and Comite River Diversion Canal.

The West Bank and Vicinity Hurricane Protection Project (HPP) is a series of 60 contracts for the upgrade and improvement of floodwalls, levees, and pump stations on the West Bank. Design and Construction activities are continuing at an accelerated pace. The USACE expects to be finished by 2011.

Morganza to the Gulf of Mexico project has ongoing design and construction. On Reach J-1, the Non-Federal sponsors have completed construction. Work-In-Kind Construction on three additional reaches will start in Fiscal Year 2009. The US Army Corps of Engineers and the Non-Federal Sponsors, which includes the Terrebonne Levee & Conservation District (TLCD), are continuing work on design activities.

Donaldsonville to the Gulf of Mexico will have a completed Feasibility Study in early 2009 and should be authorized in December 2009. For Alexandria to the Gulf of Mexico, efforts are continuing to move the feasibility study to its completion.

On the Mississippi River Levees and Berms Project, DOTD is assisting the US Army Corps of Engineers Vicksburg Division through acquisitions of Rights of Way along the Mississippi River.

The Comite River Diversion Canal was designed for the reduction of flood water on the Comite River and within the Amite River Basin. The construction of the Lily Bayou Outfall Structure is underway. An additional contract will be awarded by the beginning of Federal FY09 for the construction of the first of several bridges necessary for the project

Though not a current project, the DOTD is engaged in negotiation on the Feasibility Cost Share Agreement (FCSA) and the Project Management Plan (PMP) for the Southwest Coastal Louisiana Study.

Although not a sponsor, DOTD, through legislative mandate, monitors work on hurricane protection projects totaling over $9 billion in New Orleans and adjacent coastal areas.

STATEWIDE FLOOD CONTROL PROGRAM

Approximately $254 million of state funds have been appropriated through the Statewide Flood Control Program since its creation in 1984, funding 170 projects designed to bring about flood damage reduction. So far, 190 contracts have been completed. Approximately $18.24 in flood damage reduction is being accomplished for every state dollar invested. The funding level for FY 2008-2009 is anticipated to be $10 million.

FLOODPLAIN MANAGEMENT PROGRAM

The Floodplain Management Section of DOTD operates under a 75% / 25% Federal-State Cooperative Funding Agreement with FEMA to coordinate the National Flood Insurance Program (NFIP) regulations for the 296 participating communities. The Section also provides assistance to communities interested in participating in the Community Rating System (CRS), a program which reduces flood insurance premiums through more stringent development regulations than the minimum requirements of the NFIP. Almost 80% of the flood insurance policies in Louisiana are within the 37 communities participating in the CRS program resulting in an annual savings of over $27 million dollars in flood insurance premiums statewide.

Performing as one of the best NFIP State Coordinating Agencies in FEMA, Region VI, the program received a $30,000 increase in FEMA grant monies for fiscal year 2008-2009. The Section plans to update the Louisiana Floodplain Management Desk Reference used by local Floodplain Administrators statewide to assist them in enforcing their Flood Damage Prevention Ordinance. They also plan to partner with the Louisiana Floodplain Management Association (LFMA) to produce and distribute 2500 calendars containing important floodplain management dates and information. Each month also includes a Calcasieu Parish student's winning picture from a poster contest. The contest offered teachers and students the time to discuss flooding and floodplain management. The LFMA began this endeavor in the parish hosting their annual state conference. It is hoped this educational opportunity will grow into a statewide effort.

The Floodplain Management Section traveled over 20,000 miles making 120 visits to Louisiana NFIP (National Flood Insurance Program) communities, continuing to offer post-disaster assistance as well as explaining ABFEs (Advisory Base flood Elevations), performing CAVs (Community Assistance Visits), providing CRS (Community Rating System) assistance, General Technical Assistance and NFIP training. FEMA estimates Katrina/Rita post-disaster NFIP assistance will be ongoing for the next 5 to 10 years.

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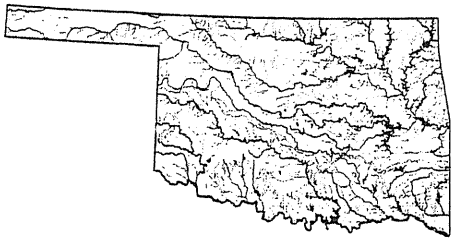
OKLAHOMA COMMISSIONERS' REPORT
Arkansas-Louisiana-Texas-Oklahoma Red River Compact Commission

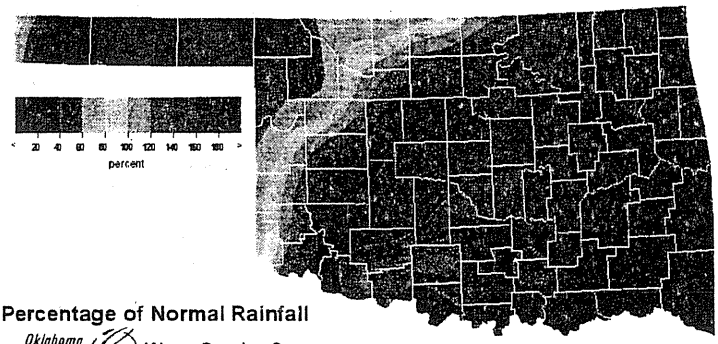


Annual Meeting: Marshall, Texas
April 21-22, 2008

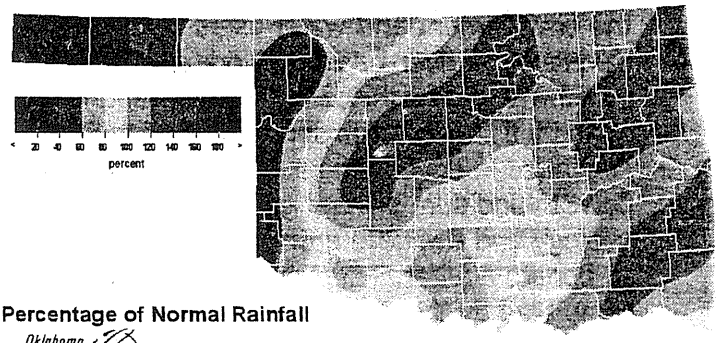
CLIMATE

While western Oklahoma remains somewhat dry, recent rainfall has benefitted much of the Red River basin in Oklahoma. For the current growing season (since March 1) in the Red River Compact area of Oklahoma, the West Central and Southwest climate divisions have received 4.2 and 5.43 inches of rainfall, respectively, both above normal for the period. The South Central and Southeast climate divisions are 3.6 and 10.4 inches, respectively, above normal precipitation for the period.

For the current water year (since October 1, 2007), the West Central, Southwest and South Central regions are all experiencing below normal rainfall. The Southeast is more than five inches above normal.



Percentage of Normal Rainfall
Oklahoma Climatological Survey
Warm Growing Season
Mar 1, 2008 through Apr 13, 2008
Copyright (c) 2008 Oklahoma Climatological Survey. All rights reserved. Rainfall data collected by Oklahoma Mesonet.



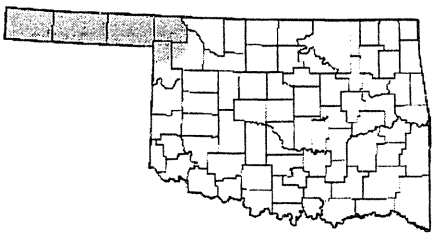
Percentage of Normal Rainfall
Oklahoma Climatological Survey
Water Year
Oct 1, 2007 through Apr 13, 2008
Copyright (c) 2008 Oklahoma Climatological Survey. All rights reserved. Rainfall data collected by Oklahoma Mesonet.

U.S. Drought Monitor
Oklahoma

April 8, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	81.5	18.5	11.1	0.0	0.0	0.0
Last Week (04/01/2008 map)	81.7	18.3	10.9	0.0	0.0	0.0
3 Months Ago (01/15/2008 map)	58.7	41.3	8.5	0.0	0.0	0.0
Start of Calendar Year (01/01/2008 map)	83.4	16.6	7.1	0.0	0.0	0.0
Start of Water Year (10/02/2007 map)	95.6	4.4	0.0	0.0	0.0	0.0
One Year Ago (04/10/2007 map)	78.3	21.7	0.0	0.0	0.0	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

USDA

Released Thursday, April 10, 2008
Author: Rich Tinker, CPC/NOAA

WATER RESOURCE STUDIES

Surface Water

- The Oklahoma Water Resources Board (OWRB), U.S. Bureau of Reclamation and Lugert-Altus Irrigation District continue their initial cooperative assessment of water quality, quantity, and base flow hydrology on Sweetwater Creek and the **North Fork of the Red River** watersheds, which include Lugert-Altus Reservoir. This study will identify options for District water conservation and augmentation.
- Geotechnical work, in conjunction with the U.S. Army Corps of Engineers (COE or Corps) continues at the proposed **Mangum Reservoir** site in southwestern Oklahoma.
- Related to the ongoing **Red River Basin Chloride Control Project** underway in Oklahoma and Texas, which is evaluating Elm Fork Area VI, the Corps and OWRB are currently collecting water quality and quantity data. Approximately $300,000 in state funding will be spent over a 4- to 5-year time period. The COE is also using federal monies to conduct modeling for the project.
- This year, the OWRB will spend approximately $50,000 in federal funds on stream gaging activities in the **Cache Creek watershed** to aid in flood forecasting.

Groundwater

- Now in its last year, researchers involved in the ongoing **Arbuckle-Simpson Hydrology Study** have made considerable progress in obtaining information necessary to understand the aquifer's hydrologic system and assess consequences of groundwater withdrawals on the environment and water users. Accomplishments for the fourth year of the study include developing a river-basin network model to assess the impact of groundwater withdrawals on downstream surface water rights and initiating an instream flow assessment was to quantify fish habitat in spring runs of the Blue River and Pennington Creek. Efforts continued in developing models of the geologic framework, stream runoff, and groundwater flow. In addition, several geophysical techniques were used to characterize the subsurface geology and evaluate groundwater flow through the highly-faulted and structurally complex carbonate aquifer. The Arbuckle-Simpson Hydrology Study remains on schedule to be completed by the end of 2008. The last year of the investigation will be devoted to writing reports, conducting computer simulations, evaluating various water-management options, disseminating information, and soliciting input from stakeholders.

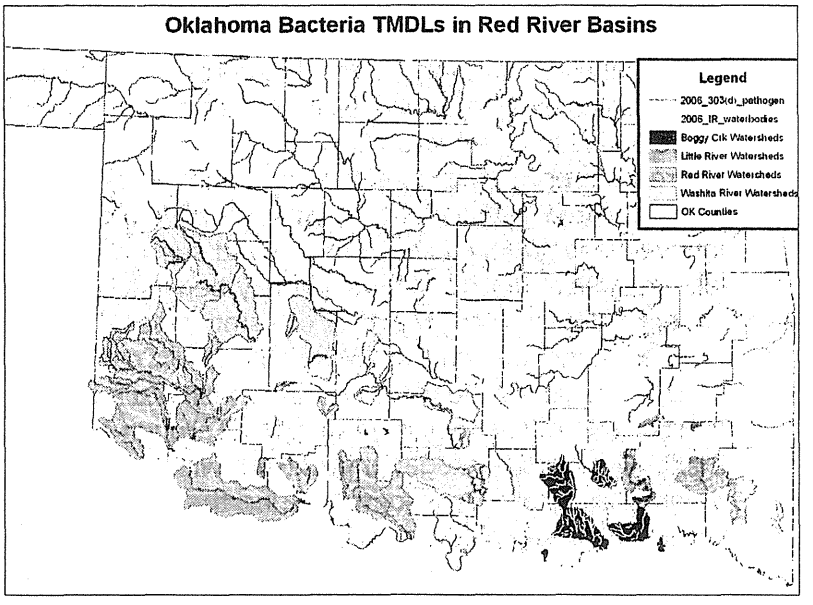
Water Quality

- As part of the **Rotating Basin Ambient Monitoring Program**, the Oklahoma Conservation Commission (OCC) is monitoring 102 sites in the Red River Basin, covering 101 tributaries. The Rotating Basin Program is a staggered, rotational sampling protocol such that outlets of complete watersheds are sampled for a period of two years on a five year rotational cycle. The program collects water chemistry data and includes intensive habitat assessments and fish/macroinvertebrate collections. The total cost of this program for the Red River Basin is $1,295,019 every 5 years. The monitoring in the Red River Basin began in June 2004 and will conclude in June 2009.
- As part of two priority watershed projects in the **Fort Cobb Lake watershed**, a tributary to the Red River via the Washita River, the OCC has implemented best management practices to reduce turbidity and phosphorus levels. Practices which have been implemented since 2001 include conversion of conventional pastures and croplands to no-till, establishment of riparian buffers, pasture management, erosion control, and waste management. The total amount of funding to address nonpoint source pollution in this watershed is $2,263,248.
- Continuing efforts to improve water quality in **Lake Thunderbird**, the OWRB and the Central Oklahoma Master Conservancy District (COMCD) have begun their sixth year of

monitoring chlorophyll and nutrient concentrations in the lake. The OWRB has recommended several management alternatives to assist the lake in meeting its designated beneficial uses. Although Lake Thunderbird is still considered impaired due to turbidity and low dissolve oxygen, practices implemented by the COMCD have greatly improved the lake's algae and chlorophyll problems.

- Shoreline erosion control and revegetation work continues at **Lake Carl Blackwell, Lake Thunderbird, Lake Draper, Grand Lake, and Hudson Lake**. By demonstrating innovative ways to combat erosion and suspended sediment, the OWRB seeks to educate lake managers on the habitat-friendly benefits of establishing aquatic plants to improve water quality and the health of our state's aquatic communities.
- Progress continues on the OWRB's Federal Cost Share Agreement with the COE. This 50/50 partnership seeks the most feasible means to mitigate the impaired water quality of **Lake Wister** due to low dissolved oxygen. Through this project, scheduled for completion in 2008, all potential mitigation methods will be screened until the most feasible method is determined. Staff are also monitoring the success of a recent project to establish aquatic vegetation in the shallow reaches of Wister. Based on the success of these projects, the OWRB has completed a small grant from the National Fish and Wildlife Foundation to establish a sustainable source area of aquatic plants for Lake Wister. This "seed" money has successfully started a local, long-term planting effort to help reduce the lake's nutrient content, increase clarity, and provide valuable habitat for fish and wildlife.
- Through the **Red River Nutrient Criteria Development Support Project**, the U.S. Environmental Protection Agency (EPA) has awarded $180,000 to Dr. Brian Haggard with the University of Arkansas (through the Agricultural Research Service) to assist Region VI states that contain or adjoin the Red River in developing nutrient criteria. Two phases of the project are currently funded. The initial phase of the project is to compile data from the Red River states into a single database and to identify data gaps. The second phase will analyze data to determine mass loadings and trends in concentrations. Future phases of this project will include evaluation and identification of impairments on the rivers and predict nutrient concentrations that will allow full support of Red River beneficial uses.
- OWRB staff is midway through a cooperative project with the City of Oklahoma City to restore fish and wildlife habitat by the establishment of native aquatic plants along the shoreline of **Lake Stanley Draper**. The project will include education of lake managers while enhancing water quality, mitigating shoreline erosion and beautifying the lake.
- In response to recent ecological impacts to aquatic life resulting from golden **algae blooms** and other toxic-producing algae, OWRB staff are working with various state and federal agencies to monitor for this organism. Monitoring of Lake Texoma will be conducted as part of a larger project utilizing OWRB staff and volunteers to conduct HAB screening activities on a subset of Oklahoma lakes. Approximately $12,000 will be expended on Lake Texoma monitoring.
- National Flowing Waters Study - The OWRB will be participating in the National Flowing Waters Study beginning in the summer of 2008. Sampling on numerous wadeable and non-wadeable streams will occur to assess environmental integrity of the waters.

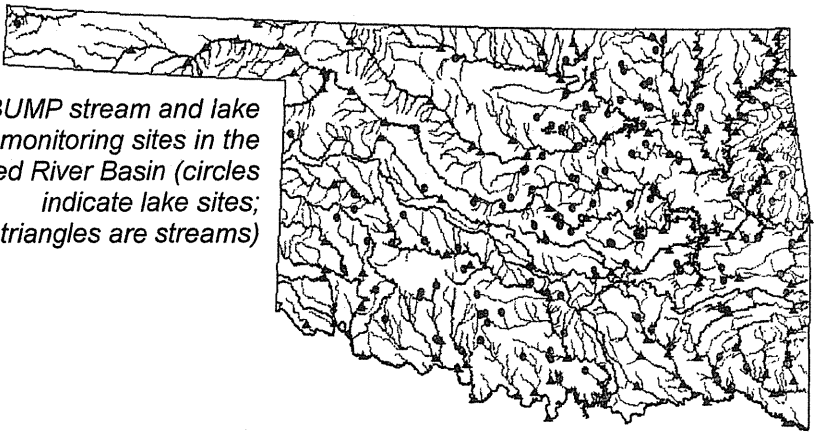
- The Oklahoma Dept. of Environmental Quality (ODEQ) has completed four area reports (Boggy Creek, Little River, Washita River and Lower Red River) and drafted one bacteria TMDL report (Upper Red River Area) for various waterbodies within the Red River Basin. Each report includes a group of stream segments and each stream segment may be impaired for more than one indicator. The map shows the sub-basins for each stream segment where bacteria TMDLs were developed. These TMDL reports can be found on the ODEQ website. TMDLs should be developed within the next year.



- Additional ongoing OWRB water quality projects include:
    - Probabalistic biological monitoring to assess stream ecosystem integrity throughout Oklahoma;
    - The state level probabalistic monitoring survey for EPA's National Lakes Survey concluded last summer; lake water quality and ecosystem integrity is being asessed throughout Oklahoma;
    - Confirmatory stream and reservoir monitoring to assess Water Quality Standards beneficial use attainment status; and
    - Confirmatory stream and reservoir monitoring to assess Water Quality Standards beneficial use attainment status prior to total maximum daily load (TMDL) completion.

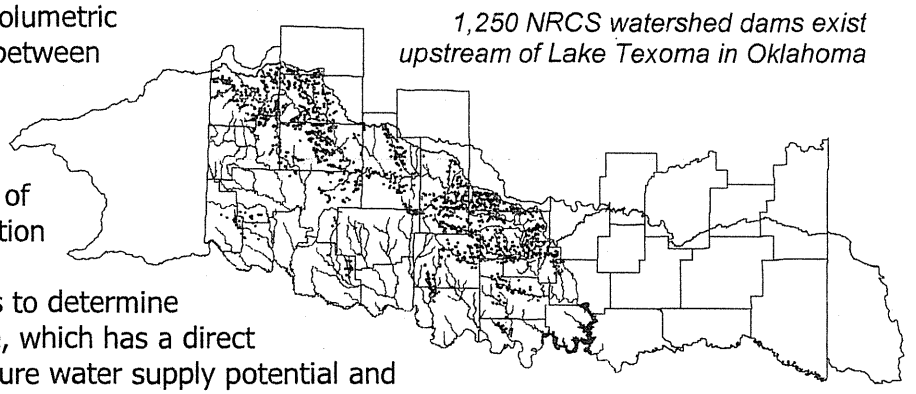
BENEFICIAL USE MONITORING PROGRAM

The OWRB's Water Quality Division continues to monitor water quality conditions and trends statewide through the Beneficial Use Monitoring Program (BUMP) and Oklahoma Water Watch (OWW) Volunteer Monitoring Program. The BUMP includes almost 100 stream and lake monitoring sites within the Red River Basin in Oklahoma. Each year, the OWRB spends approximately $125,000 for stream monitoring activities and $65,000 for lake monitoring activities in the Red River Basin in and above Lake Texoma. Annual BUMP reports are available on the Board's Web site at www.owrb.ok.gov and on CD. The purpose of BUMP, recognized by EPA as one of the finest state-run monitoring programs in the nation, is to document beneficial use support or non-support.



BUMP stream and lake monitoring sites in the Red River Basin (circles indicate lake sites; triangles are streams)

LAKE TEXOMA VOLUMETRIC STUDY



1,250 NRCS watershed dams exist upstream of Lake Texoma in Oklahoma

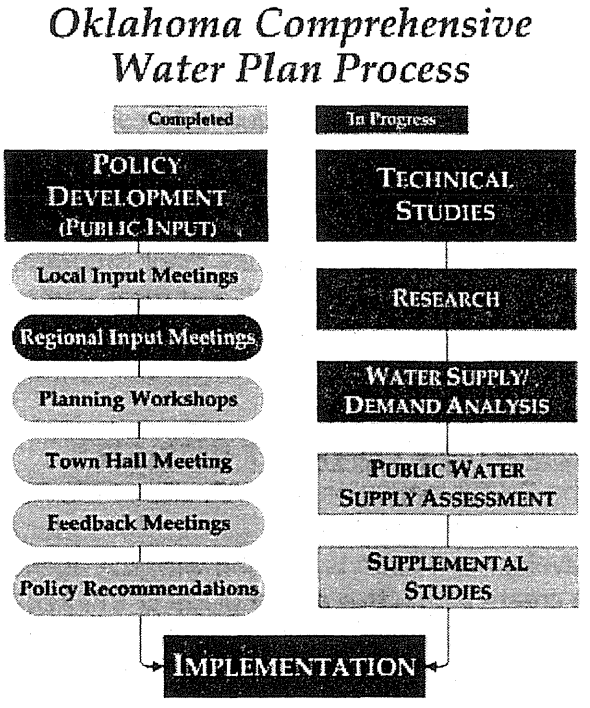
The ongoing Lake Texoma Volumetric Study—a cooperative study between the OWRB and Texas Water Development Board (TWDB)—is an effort to calculate the current volume of the lake as part of a reallocation pool study by the Corps. Specifically, the survey seeks to determine the lake's sedimentation rate, which has a direct impact on its current and future water supply potential and recreation accessibility. A hydrographic survey was conducted by the TWDB in June 2002. Critical to sediment control in Lake Texoma are the 1,250 Natural Resources Conservation Service watershed dams upstream of the lake.

THE 2008 OKLAHOMA LEGISLATIVE SESSION

The Oklahoma State Legislature convened this year's session on February 4 with the filing of many bills dealing with various aspects of water management. Among the Board's priority legislation this year is another request to remove the existing cap on Gross Production Tax revenues, thereby diverting spillover funding currently going to the General Revenue Fund to the OWRB, thereby providing additional funding to update the Oklahoma Comprehensive Water Plan. The additional money would also accelerate completion of the plan and assist in immediate implementation of associated planning projects and studies. Another bill would establish a state water portal system website at the OWRB that would serve as the ultimate point of access to state/federal government water-related services and information for the public. The OWRB is also attempting to raise fees associated with water use permit administration to strengthen the agency's water rights program.

UPDATE OF THE OKLAHOMA COMPREHENSIVE WATER PLAN

The OWRB has begun the second year of the state's update of the Oklahoma Comprehensive Water Plan, planned for completion in 2012. The last of 42 statewide listening sessions, to facilitate the stakeholder participation and public policy development phase of the update, concluded last November. The technical study/engineering phase—including a statewide assessment of water supply infrastructure—will solicit assistance from various state and federal agencies and organizations, as well as consultants.



NEW FLOODPLAIN MANAGEMENT ACTIVITIES

The OWRB has received two grants from the Federal Emergency Management Agency (FEMA), through Oklahoma's Department of Emergency Management, to field-verify and update FEMA'S database on repetitive loss structures. Staff will visit each of the repetitive loss sites listed on

FEMA's master list, take digital color photos, the geospatial reference, address, owner and tax values and prepare a portfolio for each of community visited. Staff will process appropriate documentation for those structures that need to be removed from the repetitive loss list. The OWRB has also submitted to FEMA a "Flood Map Modernization State Business Plan" for Oklahoma. The OWRB plans to take a more active role in the floodplain mapping process under the new direction of FEMA's map modernization initiative.

WATER RESOURCES FINANCING

The OWRB administers the State *Financial Assistance Program* (FAP), backed by the Statewide Water Development Revolving Fund, which awards loans and grants for the construction and improvement of water and sewer facilities. In all, through the OWRB's five loan and grant programs, more than $1.7 billion in financing has been provided for water and sewer projects in Oklahoma.

To date, the OWRB's Bond Loan Program—which provides financing from proceeds of revenue bonds to eligible communities for sewer and water improvements and refinancing—has approved 99 bond loans totaling more than $113 million in the Red River Basin region of Oklahoma. The emergency grant program, funded by interest earnings on the Revolving Fund, has approved 229 grants for almost $13.5 million in the region. These grants have stimulated many millions of dollars more in local water/wastewater projects.

The OWRB also provides loans through the Clean Water (CWSRF) and Drinking Water State Revolving Fund (DWSRF) Programs for various wastewater and water treatment/distribution projects, respectively, which are often required to bring borrowers into compliance with EPA requirements. The CWSRF Loan Program, which provides funds for the construction of new wastewater facilities or the replacement or rehabilitation of existing facilities, has approved 118 loans for almost $133 million in the Red River Compact area of Oklahoma. The DWSRF, a cooperative program recently developed by the OWRB and ODEQ, was created to assist municipalities and rural water districts in constructing drinking water treatment and distribution system improvements required to comply with the federal Safe Drinking Water Act. The program has approved 77 loans for almost $156 million in the area.

The *Rural Economic Action Plan (REAP)* grant program is operated by the OWRB in a manner very similar to its emergency grant program. REAP gives priority to communities with populations less than 1,500 and rural water districts with less than 450 household taps. The OWRB has approved 223 REAP grants totaling more than $19.6 million within the Compact area.

RED RIVER COMPACT WEB SITE

The OWRB maintains the Web site of the Red River Compact Commission at http://www.owrb.state.ok.us/rrccommission/rrccommission.html. The OWRB's web development team is working with the agency's Geographic Information System (GIS) specialist to create interactive online maps of the Red River basin, including links to realtime U.S. Geological Survey (USGS) streamflow data in the Compact region.

ATTACHMENT 8

Red River Compact Commission
Texas Commissioners Report
April 22, 2008

The report of the Texas Commissioners is presented by Commissioner William A. Abney and Herman Settemeyer.

Water Legislation - Senate Bill 3

Environmental Flows - Senate Bill 3 changed the environmental review for water rights permitting from a case-by-case basis to an environmental standards-by-rule process. The bill created an Environmental Flows Advisory Group, composed of nine members appointed by the governor and legislative leadership. The Advisory Group appoints members to bay and basin area stakeholder committees. The Advisory Group also appoints a statewide science advisory committee to develop recommendations to help provide overall direction, coordination and consistency.

Each bay and basin area stakeholder committee will establish a bay and basin expert science team that will advise the stakeholder committee. Each bay and basin stakeholder committee shall develop a recommended stream flow regime for their specific bay and basin. These recommendations go to the TCEQ, which adopts rules establishing environmental flow standards. In adopting the rules, the TCEQ may consider the expert science team recommendations, the stakeholder recommendations, and human and other competing water needs.

With TCEQ environmental flow standards established, in new water right applications, the TCEQ applies the environmental flow standard from the rule rather than performing an application specific analysis. After September 1, 2007, permits for new appropriations or amendments that increase the permitted amount of water must include a provision that allows for an adjustment to the conditions on the new permitted water designed to protect the environment. The cumulative adjustment to the annualized total of the condition may not be more than 12.5 percent.

The bill also provides that set asides can be suspended if the commission finds that an emergency exists that cannot practically be resolved in another way.

Reservoir Sites and Ecologically Unique Rivers - The bill designated reservoir sites named in the *2007 State Water Plan* which have unique value for the construction of a dam or reservoir. The effect of the designation is that a state agency or political subdivision may not obtain a fee title or easement that would significantly prevent the construction of the reservoir. Among the listed sites was Lake Ralph Hall and Marvin Nichols Reservoir (Sulphur River Basin).

The bill also designated all river or stream segments recommended in the *2007 State Water Plan* as being of unique ecological value. The effect of this designation is that the state or a political subdivision may not finance the actual construction of a reservoir in an area designated.

Floodplain Management - The TCEQ floodplain management program associated with the FEMA grant was transferred to the Texas Water Development Board. The legislation provided additional funds to enhance the program.

Climate Change - The Texas Water Development Board was directed to conduct a study regarding the possible impact on climate change on surface water supplies from the Rio Grande associated with the Rio Grande Compact. The Board will be conducting a conference in June on this topic.

Edwards Aquifer Recovery Implementation Program - The program is a collaborative initiative among stakeholders to participate in efforts to contribute to the recovery of the Edwards Species, develop aquifer management measures, and develop conservation measures for the Edwards aquifer. SB 3 required the development of a recovery implementation program through a consensus-based process. This Program will develop a program document that may be in the form of a habitat conservation plan used in the issuance of an incidental take permit. The document shall:

1) provide recommendations for withdrawl adjustments,
2) recommendations to pursue cooperative and grant funding,
3) approved and executed by 2012. TCEQ is a required signature.

A Steering Committee was legislatively created oversee and assist in the development of the document.

2007 State Water Plan

The current plan current was adopted at the end of 2006. The plan is updated and revised every five years. The current plan ca be found on the Texa Water Development Board website at:
http://www.twdb.state.tx.us/publications/reports/StateWaterPlan/2007/2007StateWaterPlan/2007StateWaterPlan.htm

Instream Flow Applications

The TCEQ previously received several applications primarily from environmental interests to appropriate significantly large amounts of water for instream flow needs. The TCEQ denied all the applications without a hearing on the basis that they did not have the authority to grant new applications solely for instream uses. This ruling was appealed. The three cases pending in court are TCEQ v. San Marcos River Foundation (SMRF), TCEQ v. Caddo Lake Institute, and TCEQ v. Galveston Bay Conservation and Preservation Association, Matagorda Bay Foundation, and Galveston Bay Foundation. In all three cases, the trial court reversed the TCEQ and remanded to the TCEQ to consider the applications. SMRF and Galveston Bay were argued before the Corpus Christi Court of appeals last fall. No opinion has been issued to date. Caddo Lake Institute is still at the trial court level, awaiting consideration of some other issues.

City of Marshall Water Rights Application:

The City of Marshall made an application to the TCEQ to convert 8,000 acre-feet of their existing 16,000 acre-foot municipal water right to include industrial purposes and to use the water in the Sabine as well as the Cypress basins. The water right is just upstream

of Caddo Lake. The TCEQ granted the application without a public hearing based on the fact that no additional consumptive use of the water would be made than was already authorized by the existing permit. The Commission s decision was appealed to the 53rd District Court of Travis County. The 53rd District Court ruled that the Commission erred. The Court s ruling was appealed by the City of Marshall and the TCEQ to the Austin Court of Appeals which upheld the District Court ruling in part (requiring a public hearing on the change of use)and reversed the ruling in part (allowing use of water in the Sabine and Cypress River basins). The TCEQ appealed the ruling on the industrial use issue to the Texas Supreme Court (City of Marshall v. City of Uncertain, Cause No. 03-1111), but the interbasin transfer issue was not appealed by any party, and is now final (TCEQ's decision on that issue was upheld). The industrial use issue was argued to the Texas Supreme Court in October, 2004.

The Supreme Court said that it could not say whether the TCEQ had erred, so it sent the application back for further proceedings consistent with the opinion. It held that when considering an amendment to a water right for change in use, the Commission must consider the impact of the application on "public interest criteria" (conservation plans, consistency with the state and regional plan, beneficial use, detriment to the public welfare) and must consider whether the environment or water rights can be impacted by the application "beyond the full use assumption." The TCEQ may be able to determine this from the face of the application. If it finds that there is a question about the impact on any of these criteria, it must provide notice and an opportunity for a hearing.

Staff are developing recommendations for the type of notice required for the City of Marshall-type applications. These recommendations are being prepared from responses to the answers submitted by the applicants on the public interest criteria notice requirements. The recommendations will be set on the Commissioners agenda for a Commission decision.

Tarrant Regional Water District's Permit Application

Tarrant Regional Water District applied to the Texas Commission on Environmental Quality (TCEQ) for a permit to divert water from the Kiamichi River in Oklahoma. The Executive Director of the TCEQ determined that the TCEQ did not have jurisdiction to process an application requesting a diversion of water from the Kiamichi River. The application was returned to Tarrant Regional Water District.

Mexico Water Deliveries

The last water cycle provided by the 1944 Treaty ended on October 3, 2007. To avoid another deficit, Mexico transferred 224,000 acre-feet of water to the United States from Mexico's account in Amistad Reservoirs. Since the new cycle began in October 2007, Mexico has delivered approximately 45,000 acre-feet of water. This is approximately 300,000 acre-feet behind the average delivery required to meet their Treaty obligation. The current cycle ends on October 3, 2012 and Mexico is required to deliver 1,750,000 acre-feet over this 5-year period, an average of 350,000 acre-feet annually.

ATTACHMENT 9

Red River Compact Commission
FY-2009 Budget
(July 1, 2008 through June 30, 2009)

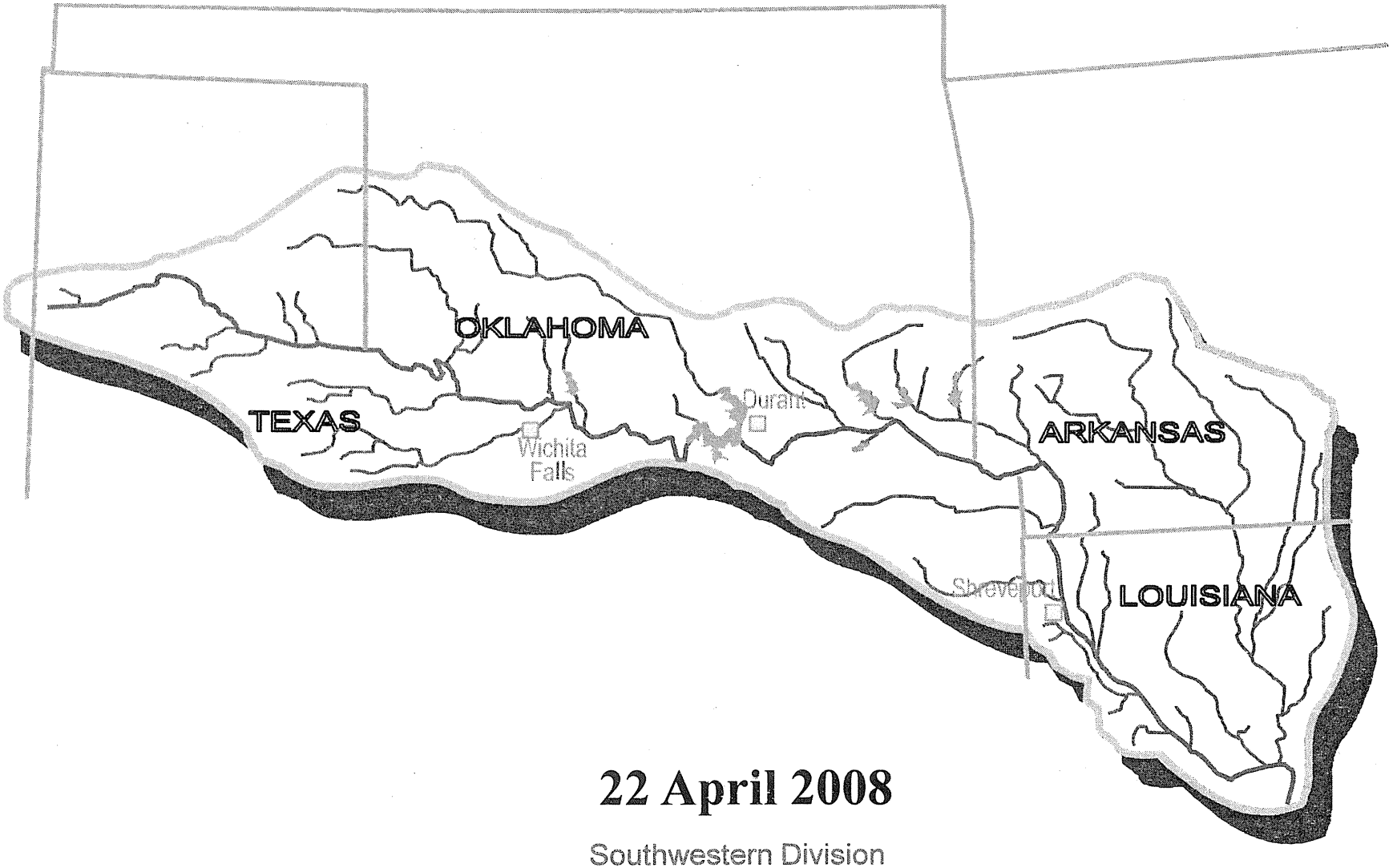
	FY 2008	FY 2009
Personnel Services, Office Expenses, Rent, Travel* (Mtg. Expenses)	$1,000.00	$1,000.00
Audit	$ 275.00	$ 275.00
Postage, Stationery, & Office Supplies, File Cabinet (s)	$ 250.00	$ 250.00
Printing & Reports	$2,250.00	$2,250.00
Contingency	$17,000.00	$17,000.00
TOTAL	$20,775.00	$20,775.00

State Assessments

In accordance with Article IX, Section 9.04.C, of the Compact, the amount of such budget shall be borne equally by the signatory states in an equal amount. Therefore, the FY 2008 assessments is $550.00 per state.

US Army Corps of Engineers ®

Tulsa District Briefing
for
Red River Compact Commission



22 April 2008

Southwestern Division

ATTACHMENT 10

US Army Corps of Engineers ®

Tulsa Engineer District

- Support to Corps National Priorities
  - Global War on Terrorism
- Meeting Cost Sharing Commitments with Stakeholders
- Supporting State Water Plan Initiatives
- Aging Infrastructure
- Flood Damages Impacts
  - Embankments and Outlet Works
  - Navigation
  - Recreation
- WRDA 07

US Army Corps of Engineers ®

FY 2008 Budget

FY08 Proposed President's Budget

General Investigations - $0
Construction General - $17,300,000
Operations & Maintenance - $79,400,000

FY08 Allocations

General Investigations - $891,000
Construction General - $21,605,000
Operations & Maintenance - $74,295,000

US Army Corps of Engineers ®

FY 09 Civil Works President's Budget

	General Investigations	Construction General	O&M
Oklahoma	0	21.4 M	63.7 M
Texas	0	0	9.1 M
Kansas	0	0	8.2 M
TOTAL	0	21.4 M	81.0 M

US Army Corps of Engineers ®

FY 2009 General Investigations

Study	Budget ($)	Capability ($)	FCSA
Grand (Neosho) River Basin Watershed, OK and KS, Feas	0	106,000	Sep 2006
Grand Lake Comprehensive, OK, Feas	0	500,000	N/A
Oologah Lake Watershed, OK & KS, Feas	0	295,000	Jul 2002
Southeast OK Water Resource Study, OK, Feas	0	500,000	Jul 2001
Washita River Basin, OK, Feas	0	500,000	Sep 2008
Oklahoma Comprehensive Water Plan, OK	0	1,600,000	N/A
Total GI:	0	3,501,000	

US Army Corps of Engineers

FY 2009 Construction General

Project	Budget ($)	Capability ($)
Canton Lake, OK (Dam Safety)	21,200,000	21,200,000
Keystone Lake, OK (Dam Safety)	290,000	290,000
Lawton, OK, Env Infrastructure (Payback Issues)	0	585,000
Tar Creek Cleanup, OK	0	1,544,000
Yukon, OK, Environmental Infrastructure (Payback Issues)	0	3,138,000
Arkansas River Corridor, OK	0	10,000,000
Red River Chloride Control, Wichita River Basin, TX & OK	0	5,163,000
TOTAL CG:	21,490,000	41,920,000

US Army Corps of Engineers ®

FY 2009 - SWT Operations & Maintenance

Project	Budget ($)	Capability ($)
Broken Bow Lake,OK	1,897,000	3,247,000
Hugo Lake, OK	1,494,000	2,924,000
Pine Creek Lake, OK	1,099,000	2,484,000
Sardis Lake, OK	912,000	1,312,000
Waurika Lake, OK	1,093,000	4,513,000
Ark-Red R Chloride Control-Area VIII, TX	1,415,000	1,969,000
Denison Dam-Lake Texoma, TX	6,393,000	31,613,000
Estelline Springs, TX	38,000	43,000
Lake Kemp, TX	214,000	664,000
Pat Mayse Lake,TX	1,005,000	1,455,000

NOTE: These numbers represent an illustrative distribution of operation and maintenance activities subject to revision during the course of the year, and therefore individual project estimates should not be considered as budget amounts.

US Army Corps
of Engineers ®

Tulsa District
High Priority Projects and Activities

Southwestern Division

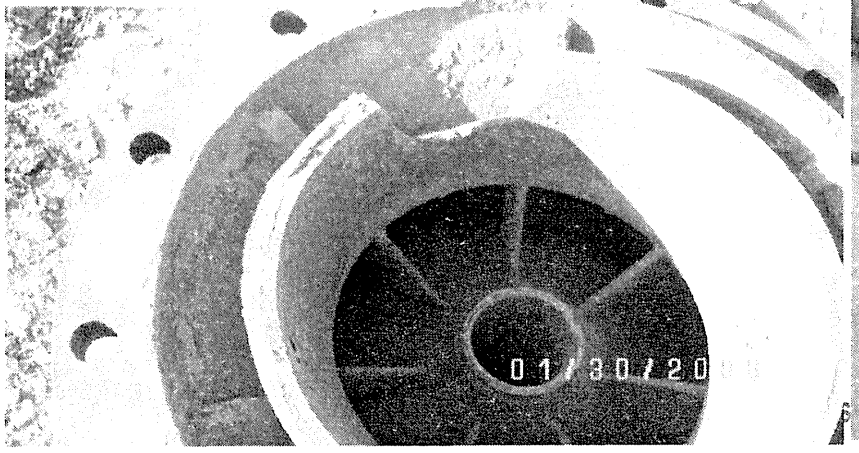
US Army Corps of Engineers ®

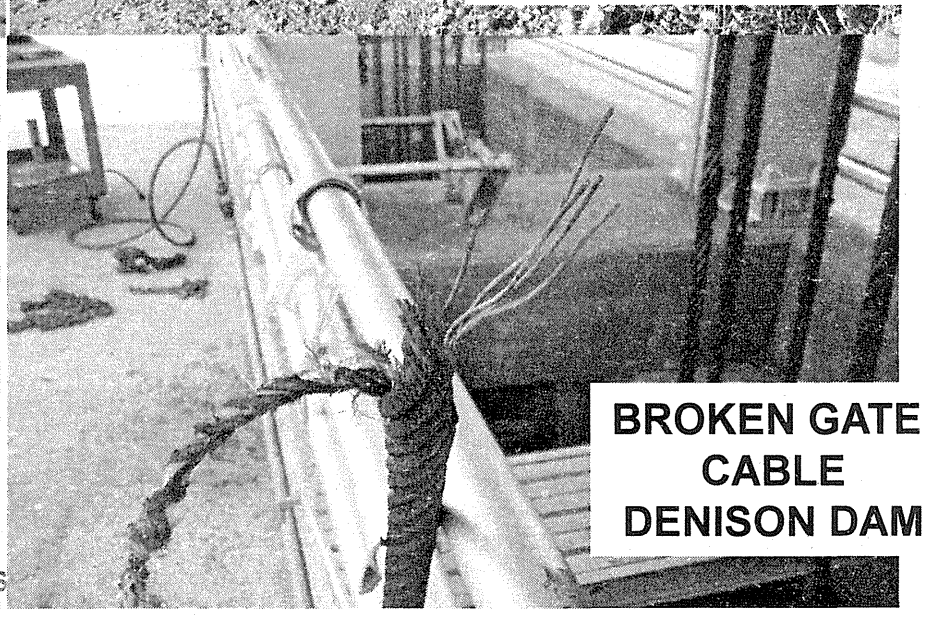
Aging Infrastructure

RUSTED GATE
BROKEN BOW LAKE

DAMAGED GUARDRAIL
TRUSCOTT LAKE

DAMAGED SALTWATER
PUMP: AREA VIII





BROKEN GATE
CABLE
DENISON DAM

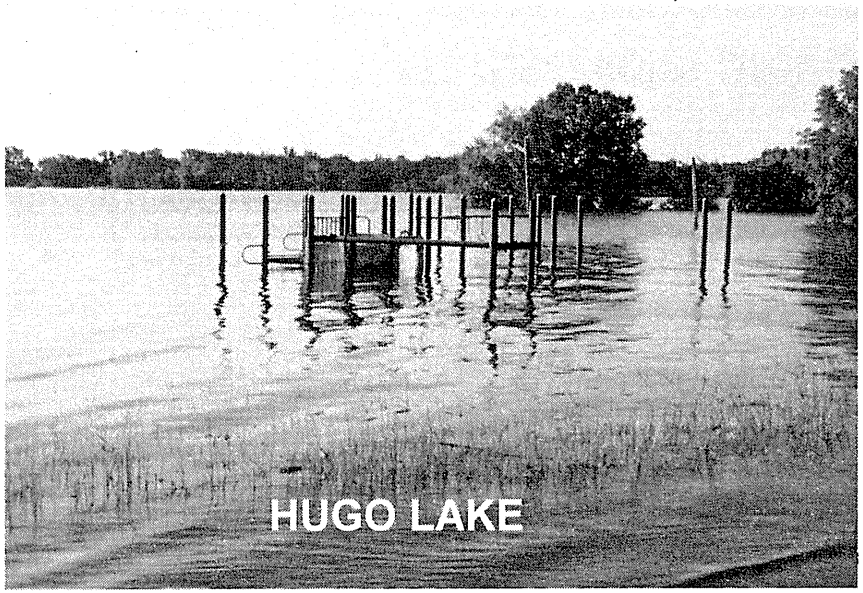
US Army Corps of Engineers ®

Impacts of Aging Infrastructure

- 9 projects over 50 years of age
- $53.6M critical maintenance backlog
- FY00-FY05: $45.8M spent on critical maintenance contracts
- FY06-FY07: $360K spent on critical maintenance contracts
- Maintenance backlog grows annually at a rate of $7M/year
- Supplemental O&M funds are required to address these significant maintenance requirements

US Army Corps of Engineers ®

Impacts of 2007 Flooding



US Army Corps of Engineers ®

Impacts of 2007 Flooding

- Portions of the Red and Arkansas River basins experienced historic flood events
- SWT managed reservoirs prevented ~ $681M in damages during these floods
- Over $34.5M in damages in 160 public use areas at 25 different projects as a result of these floods ($10.5M Priority 1, $24M Priority 2)
- Lack of funding for repairs and cleanup will result in partial closure of some parks and an overall decrease in available facilities and amenities at District projects

US Army Corps of Engineers ®

WRDA Provisions

- Oklahoma Lakes Demonstration Program
- Red River Chloride Control
- Waurika Lake
- Lake Kemp Cabins
- Pat Mayse
- Land Conveyance to city of Denison, TX
- Lake Texoma Reversionary Clause

US Army Corps of Engineers ®

Red River Chloride Control, TX & OK
Construction

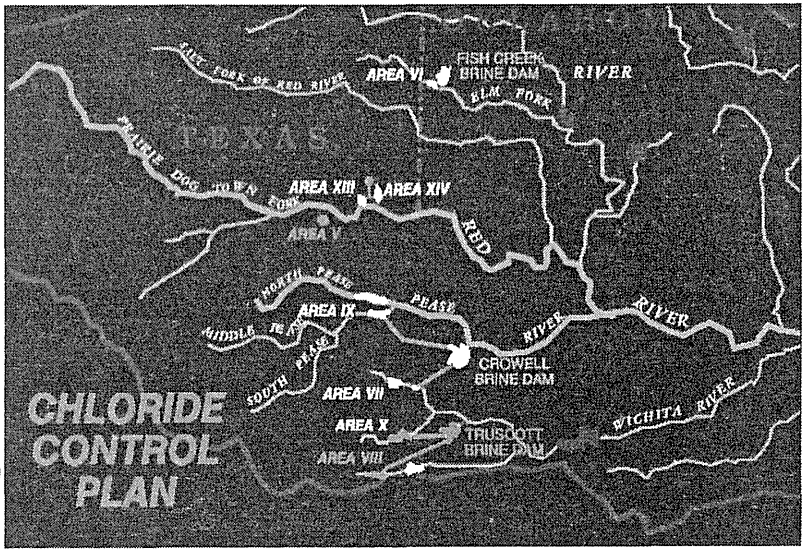
Project: Reduce naturally occurring chloride and total dissolved solid concentrates in the Upper Red River Basin to allow economical use of water for municipal, industrial, and agricultural purposes. This project is a select major water strategy of the 2007 Texas Water Plan.

Status: Final design efforts (P&S) for Area VII and reevaluation efforts for Area VI are underway.

Sponsors: Wichita Basin - Red River Authority of Texas, TX
Area VI - Oklahoma Water Resources Board (OWRB) and the Lugert-Altus Irrigation District, OK

President's FY09 Budget: 0

Capability: $ 5,163,000



US Army Corps of Engineers ®

Palo Duro Creek, Canyon, TX
Continuing Authorities Program–Sec 205 Construction

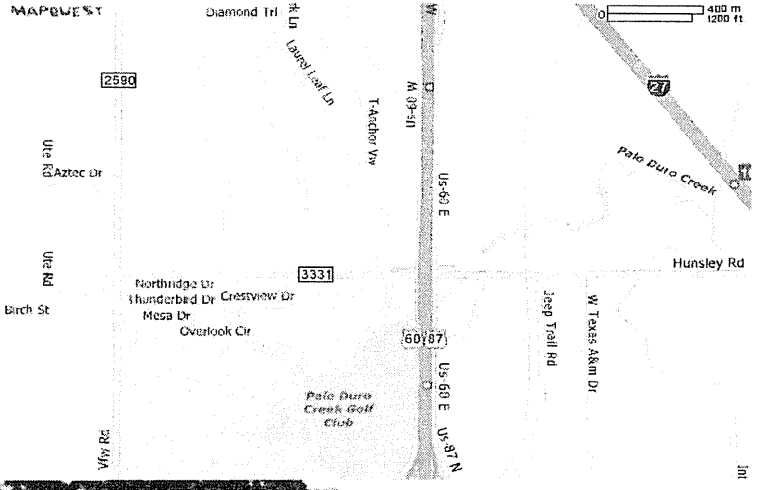
Project: Implement local flood protection improvements along Palo Duro Creek in Canyon, TX.

Status: Project awaiting funding to initiate feasibility efforts.

Sponsor: City of Canyon, Texas

President's Budget: N/A (Continuing Authority)

Capability: $100,000



US Army Corps
of Engineers

Lake Kemp, TX, Reallocation Study

Project: The Texas Comprehensive Water Plan identifies needs for Region B as quickly as 2010. Through this study an array of alternatives will be analyzed to address the 31,000 acre-feet supply shortfall. The Texas Water Allocation Assessment has identified this study as its top priority for available line item funding in 2007.

Status: Reallocation

Sponsor: O&M funded (Full federal cost)

President's Budget: $214,000

Capability: $664,000 (includes $300,000 to complete reallocation study)

US Army Corps of Engineers ®

Lake Texoma, OK and TX Reallocation Study

Project: Reallocation of up to 300,000 acre feet of water from hydropower to water supply agreements for North Texas Municipal Water District and Greater Texoma Utility Authority.

Status: Reallocation

Sponsor: O&M funded (Full federal cost)

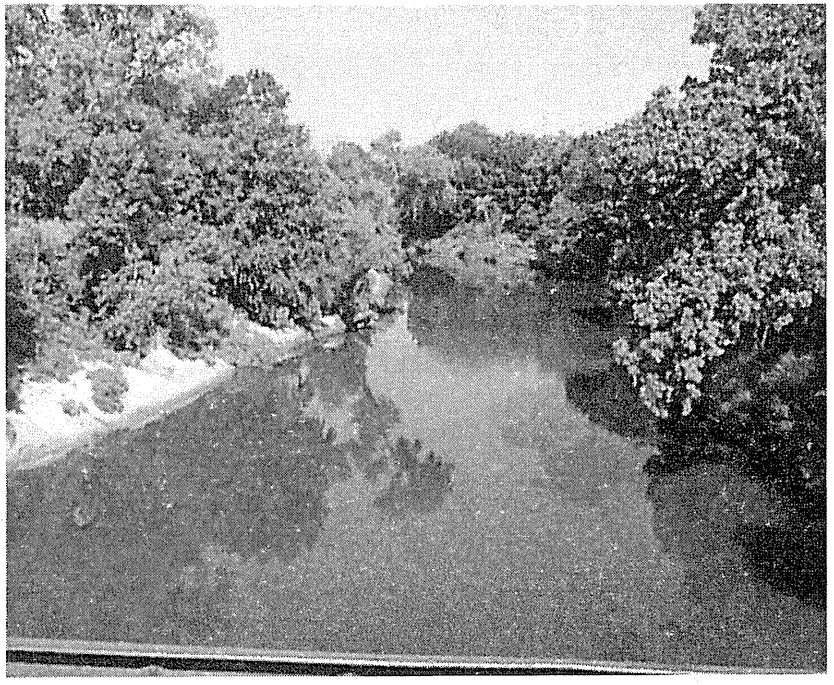
President's FY09 Budget: 0

Capability: 0

US Army Corps of Engineers ®

Washita River Basin, OK
Investigations

Project: Federal interest was identified for Feasibility level studies to solve the water resource problems within the study area (including a systems approach to collaboratively develop a Washita River Watershed Management Plan that provides pertinent existing, forecasted, and strategic information) for the Oklahoma Comprehensive Water Plan (OCWP).



Status: Feasibility

Sponsor: Letter of intent to enter into Feasibility phase received from Oklahoma Water Resources Board Aug 2007.

President's FY09 Budget: 0

Capability: $ 500,000

US Army Corps
of Engineers

Southeast Oklahoma Water Resource Study, OK
Investigations

Project: The output will be a Southeast Oklahoma Watershed Management Plan that identifies solutions to water resource problems within the study area including a systems approach to collaboratively develop pertinent existing, forecasted, and strategic information for the Oklahoma Comprehensive Water Plan (OCWP). This study is comprised of the 29 counties in Southeastern Oklahoma.

Status: Feasibility

Sponsor: Oklahoma Water Resources Board

President's FY09 Budget: 0

Capability: $ 500,000

US Army Corps of Engineers ®

Oklahoma Comprehensive Water Plan, OK (PAS)
Investigations

Project: This study will establish a work plan that outlines a systems approach to collaboratively develop pertinent existing, forecasted, and strategic information for the Oklahoma Comprehensive Water Plan (OCWP). All information from this plan will be integrated into the five year update of the OCWP.

Status: Planning Assistance to States (PAS)

Cost Sharing Document: Agreement not yet executed.

Sponsor: Oklahoma Water Resources Board

President's FY09 Budget: 0

Capability: $ 500,000

US Army Corps of Engineers ®

Oklahoma Comprehensive Water Plan, OK
Investigations

Project: This is a multi-year study to provide technical assistance to the state of Oklahoma in updating the Oklahoma Comprehensive Water Plan (OCWP). Phase One of the study will be to conduct in-depth analysis of state water demand projections through 2060 and undertake a comprehensive inventory and analysis of available resources. Coinciding with this effort will be extensive public involvement.

Status: Reconnaissance

Authority: Section 5119, 2007 WRDA (PL 110-114)

President's FY09 Budget: 0

Capability: $ 1,600,000

US Army Corps of Engineers ®

TULSA TEAMWORK!

ATTACHMENT 11

RECLAMATION

Managing Water in the West

Reclamation Activity Report

Oklahoma-Texas Area Office
Kansas, Oklahoma and Texas

U.S. Department of the Interior
Bureau of Reclamation

April 2008

Mission Statements

The mission of the *Department of the Interior* is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the *Bureau of Reclamation* is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Introduction
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Fort Cobb Reservoir (OK), Alternatives for Conveyance System Expansion
Lake Altus (OK), Water Supply Augmentation
Lake Thunderbird (OK), Water Supply Augmentation and Enhancement
McPherson (KS), Water Availability Study
Walnut and Lower Arkansas River Basins (KS), Water Supply Special Study
Native American Technical Assistance
Cheyenne-Arapaho (OK), Needs Assessment-Clinton Reserve
Chickasaw Nation (OK), Study of Water Treatment Alternatives
Delaware Nation (OK), Needs Assessment
Seminole Nation (OK), Replacement of Pump House and Control System
Seminole Nation (OK), Needs Assessment-Mekusukey Mission
Chickasaw Nation (OK), Artificial Recharge of the Arbuckle-Simpson Aquifer
BUREAU-WIDE PROGRAMS
Water 2025 Challenge Grant Program
Contacts

Introduction

The Oklahoma-Texas Area Office (OTAO) of the Bureau of Reclamation (Reclamation) is responsible for administering 11 reservoir projects and associated water distribution systems in southern Kansas, Oklahoma, and Texas. Reclamation works in conjunction with other Federal agencies, State agencies, Indian tribes, and local entities in performing these responsibilities. Significant areas of activity include providing oversight of operations and maintenance of existing facilities and water resources planning assistance.

The purpose of this Activity Report is to provide a selected summary of current and recent activities of the Area.

Ongoing and Recently Completed Activities

PLANNING PROGRAM

General Investigations

Arbuckle-Simpson Aquifer (OK), Water Resources Management Study
Status Ongoing
Description The Arbuckle-Simpson Aquifer has been designated a sole source Aquifer by the EPA. The health and economic future of a large number of Oklahoma residents is dependent upon protecting the quantity and quality of water in the Aquifer. The Aquifer is an important source of water supply for the citizens of Ada, Sulphur, Mill Creek, and Roff; the Chickasaw National Recreational Area; and many farmers and ranchers owning land overlying the Aquifer. Contributions from the Aquifer also provide perennial flows for many streams and natural springs in the area.

During recent years, a number of issues have emerged which have caused concern about the utilization and continued health of the Aquifer. These issues include concern over water use, competition for water, pumping water to areas beyond the recharge zones of the Aquifer, and water quality. In order to assure the future well-being of the Aquifer, the Oklahoma Water Resources Board (OWRB) entered into a cost-sharing agreement with Reclamation to undertake a five year study of the hydrology within the Aquifer including detailed assessments of the formation hydrogeology, water quality and vulnerability, as well as groundwater-surface water interactions. The results of this study will provide information that is intended for use in the development of best management practices which will protect the integrity of the Aquifer, change land use and diminish related impacts, and assist in State and Tribal water rights issues. The study was scheduled to be completed in 2007.

Fort Cobb Reservoir (OK), Alternatives for Conveyance System Expansion
Status Completed December 2006
Description Fort Cobb Reservoir serves the municipal and industrial water supply needs of several communities in west-central Oklahoma. Over the past several years, the Fort Cobb Master Conservancy District (District) has begun to experience periods of difficulty in delivering sufficient water through the Anadarko Aqueduct to meet the peak demands of the service population. Although the total demand has not yet exceeded the amount contracted to the member cities and other water user entities, the actual total deliveries requested during the summer months are approaching the physical limitations of the existing aqueduct. The purpose of this appraisal study is to evaluate alternatives that would expand the capacity of the District conveyance system.

Lake Altus (OK), Water Supply Augmentation
Status Completed March 2005
Description The purpose of this Appraisal Report was to analyze the nature of the water resource problems and needs confronting the W.C. Austin Project, and to examine potential opportunities for water supply augmentation. This study found that the primary problem now confronting the Lugert-Altus Irrigation District (District) is a decreasing storage capacity due to sediment accumulation in Lake Altus. At present, the sediment in Lake Altus is estimated to have replaced about 37 percent of the original conservation storage capacity. By 2050, sediment is projected to account for over 60 percent of this volume. This storage capacity reduction is intensified by other factors that reduce net deliveries to farms. The aging delivery infrastructure experiences problems such as excessive conveyance losses and other operational inefficiencies during water deliveries.

Various alternatives were evaluated. Water supply augmentation alternatives included reusing municipal wastewater for irrigation, constructing a new reservoir upstream of Lake Altus to preserve existing project benefits, and constructing a new reservoir downstream of Lake Altus to supplement the irrigation water supply. Efficiency improvement alternatives included restoring a hydrologic connection to the upper reservoir pool and eliminating system wasteway diversions during irrigation deliveries. Although each of the augmentation alternatives was rejected due to high costs and having poor environmental acceptability, as well as involving significant uncertainty, the efficiency alternatives were found to be cost effective. The District has subsequently implemented several of the water conservation measures identified.

Lake Thunderbird (OK), Water Supply Augmentation and Enhancement
Status Completed August 2005
Description This Appraisal Study assessed alternatives and opportunities to meet future water needs of the service population of the Central Oklahoma Master Conservancy District (District), which serves customers from the Norman Project and Lake Thunderbird, a Reclamation project. Likely sources of supplemental water were identified in southeastern Oklahoma, which would require the use of Lake Thunderbird as a re-regulating facility. The study found that the Norman Project could accommodate, and re-regulate, imported surface water with additional infrastructure and Federal authority from Congress. A feasibility-level investigation is currently being proposed by project proponents.

McPherson (KS), Water Availability Study
Status Completed December 2005
Description The McPherson area of Kansas utilizes groundwater from the Equus Beds Aquifer as the main source of water for rural, municipal, and industrial needs at this time. This investigation identified and evaluated alternatives to supplement water supplies for future growth and development, including transportation schemes from adjacent local reservoirs such as Kanopolis and Marion, groundwater recharge of the local Aquifer with water from the Little Arkansas River, re-use of treated effluent of the local communities, and others. During the evaluation, emphasis was placed on assuring recharge, or reuse, water meets water quality standards.

Walnut and Lower Arkansas River Basins (KS), Water Supply Special Study
Status Ongoing
Description The purpose of this Special Study is to assist the State of Kansas and the South Central Kansas Water Coalition counties to address public water supply problems and opportunities in a comprehensive manner. The Walnut and Lower Arkansas River Basins of Kansas have experienced growth at an increasingly high rate over the last few years, resulting in increasing demands being placed on existing water supplies. While surface and groundwater supplies are available to meet current and future (2050) demands in the area, they are generally of poor quality, or are not located in the immediate area of demand. The primary objective of this study is to formulate alternatives and opportunities to meet the future municipal and industrial demands within the study area by investigating various supply sources and associated water treatment and distribution alternatives.

Native American Technical Assistance

Cheyenne-Arapaho (OK), Needs Assessment-Clinton Reserve
Status Ongoing
Description: The Clinton Reserve is a mixed-use development consisting of community buildings, elderly living centers, hospitals, and. treatment centers. A draft engineering appraisal study on the water systems was completed by Reclamation in 2003. Since that time, the City of Clinton has constructed major improvements to the existing water and sewer distribution system. These improvements affect the conclusions and recommendations made in the 2003 Report. The current distribution system is adequate; however, the Tribes are concerned that as development continues on this site, fire protection to the living centers and hospital may not meet current standards. The Tribes believe that it is necessary to address the water and wastewater system infrastructure issues in order to ensure future fire protection and water service.

Chickasaw Nation (OK), Study of Water Treatment Alternatives
Status Ongoing
Description The Chickasaw Nation of Oklahoma has requested that Reclamation provide an appraisal-level evaluation of alternatives to treat and/or blend brackish surface water in Lake Texoma to meet regional needs in the southern portion of the Chickasaw Nation. The water quality of Lake Texoma varies by location, depth, and season, usually ranging from 500 (Washita River Arm) to 1,700 (Red River Arm) ppm of TDS. The Tribe is interested in developing additional water supplies to meet anticipated future demands in this area. Current water needs are met by the local groundwater aquifer, but

this resource may not be adequate, or cost-effective, in meeting projected future water needs. A preliminary report was released in 2007. A final report is scheduled for publication in 2008.

Delaware Nation (OK), Needs Assessment
Status Completed in July 2005
Description The Delaware Nation of Oklahoma requested Reclamation assistance with the development and enhancement of water infrastructure associated with two parcels of Tribal land near Anadarko and Hinton, Oklahoma. The preliminary engineering report for the Tribal water distribution system will be used by the Tribe to seek funding, in the form of a grant, for construction.

Seminole Nation (OK), Replacement of Pump House and Control System
Status Complete
Description The Seminole Nation of Oklahoma has requested that Reclamation provide design assistance in evaluating alternatives for the replacement of pump house and system control alternatives. Reclamation had previously, in 2001, provided recommendations based upon the urgency and necessity of repairs on the Sasakwa Rural Water District water system.

Seminole Nation (OK), Needs Assessment-Mekusukey Mission
Status Ongoing
Description The Seminole Nation has requested Reclamation to provide an assessment of water supply and infrastructure needs for the Mekusukey Mission Tribal Trust Property (Property). This property contains the Tribal headquarters building, schools, recreation and food distribution centers, a tax office, a dialysis center, and police station for the Nation. Outdated water and wastewater treatment infrastructure and water supply shortages for this Property are limiting development and straining the local economy. The Seminole Nation is requesting Reclamation assistance to inventory current water supplies, review and identify infrastructure upgrades, and evaluate potential water development alternatives.

Chickasaw Nation (OK), Artificial Recharge of the Arbuckle-Simpson Aquifer
Status: Ongoing
Description: The Chickasaw Nation of Oklahoma has made a request for Reclamation to provide a study methodology for evaluating the local geology in order to determine localized Aquifer characteristics that influence recharge capability. The Nation is also requesting that Reclamation review preliminary designs and provide technical recommendations on the ability of a structure to maximize water quality and quantity in the context of existing data available on the local geology. The estimated time to complete tasks by Reclamation staff is two years.

BUREAU-WIDE PROGRAMS

Water 2025 Challenge Grant Program

Through the Water 2025 Challenge Grant Program, Reclamation may provide 50/50 cost-share funding to irrigation and water districts, as well as States, for projects focused on water conservation, efficiency, and water marketing. Projects are selected through a competitive process based on their ability to meet the goals identified in *Water 2025: Preventing Crises and Conflict in the West*. The focus is on projects that can be

completed within 24 months that will help to prevent crises over water. More information about the Water 2025 initiative may be found on-line at http://www.doi.gov/water2025.

Recipients of ongoing Water 2025 projects in Kansas, Oklahoma, and Texas include:

- Harlingen Irrigation District (TX)
- City of McAllen (TX)
- Cameron County Irrigation District No. 2 (TX)
- Brownsville Irrigation District No. 2 (TX)
- Lugert-Altus Irrigation District (OK)
- Texas Water Development Board (TX)

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Program Coordinator of Planning and Environmental Programs
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Supervisor of Facility Operations Group
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Jeff Tompkins, Supervisory Natural Resource Specialist
Supervisor of Land Resources Group
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ATTACHMENT 12

U.S. GEOLOGICAL SURVEY SUMMARY SHEET
ARKANSAS, LOUSIANA, OKLAHOMA, TEXAS
WATER SCIENCE CENTERS

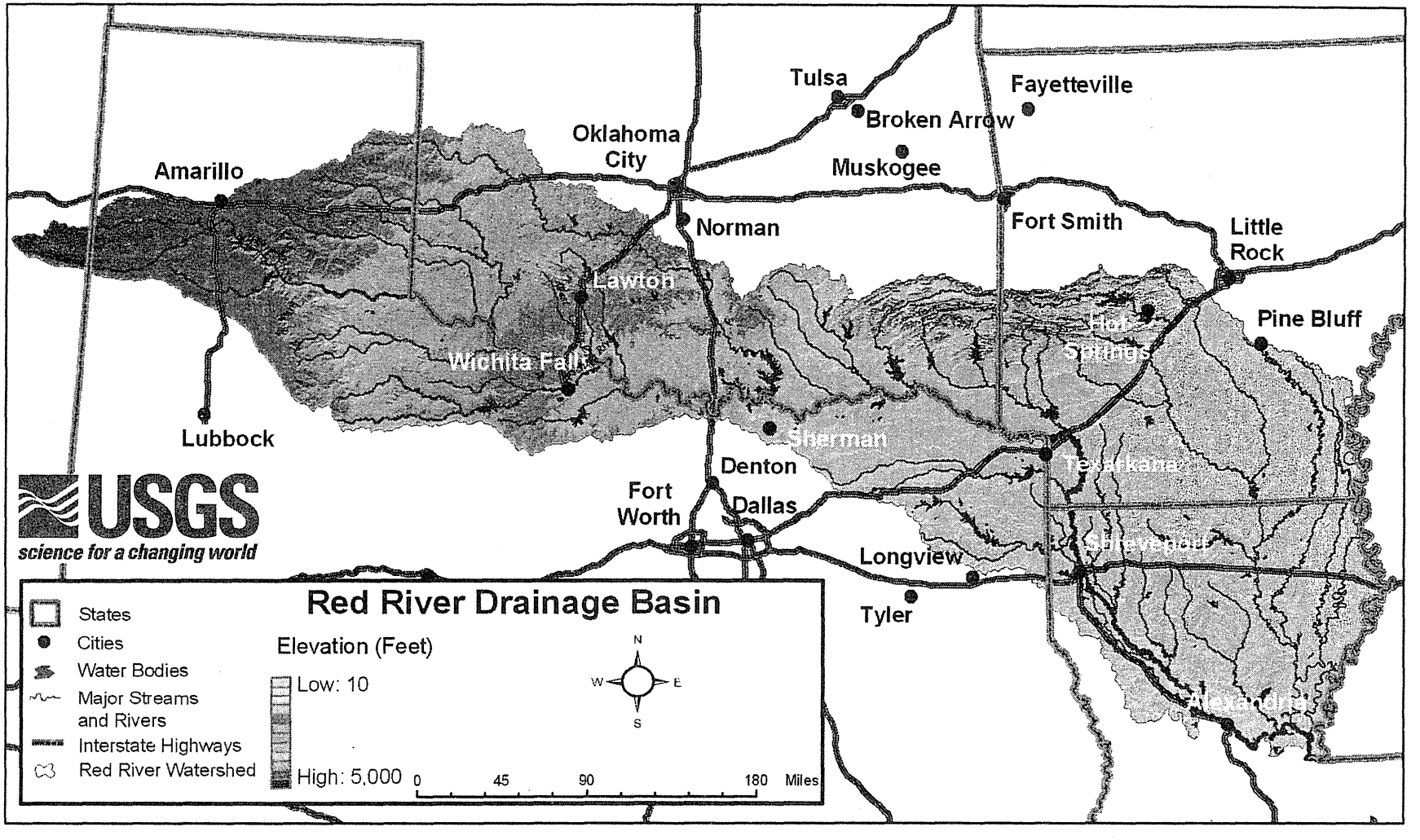
RED RIVER COMPACT COMMISSION
28th Annual Meeting

Greater Marshall Chamber of Commerce
Marshall, Texas
April 22, 2008

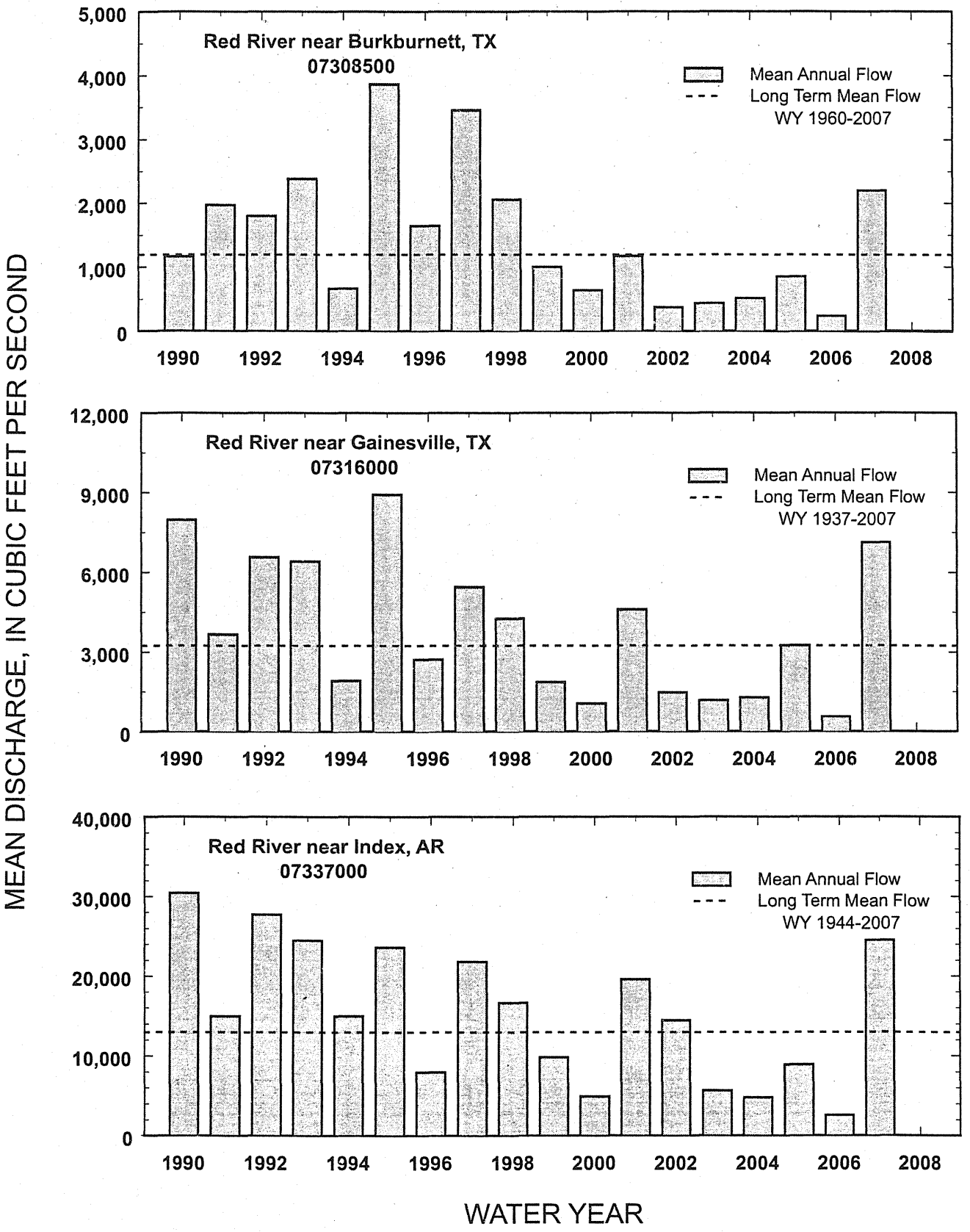
RED RIVER BASIN

	PEAK DISCHARGE (CFS) MAXIMUM	PEAK DISCHARGE (CFS) WY 07	AVERAGE DISCHARGE (CFS) PERIOD OF RECORD	AVERAGE DISCHARGE (CFS) WY 07
07308500 RED RIVER NR BURKBURNETT, TX	174,000 6-6-1995	37,100 10-18-06	1,195 48 YRS	2,203
07315500 RED RIVER NR TERRAL, OK	236,000 6-7-1995	102,000 7-1-07	2,458 70 YRS	4,897
07316000 RED RIVER NR GAINESVILLE, TX	265,000 5-31-1987	95,900 7-3-07	3,236 71 YRS	7,143
07331600 RED RIVER AT DENISON , TX	201,000 5-21-1935	39,500 7-15-07	4,821* 55 YRS+	11,060
07335500 RED RIVER AT ARTHUR CITY, TX	400,000 5-28-1908	81,700 7-12-07	9,195* 63 YRS++	18,150
07337000 RED RIVER AT INDEX, AR	297,000 2-23-1938	102,000 7-16-07	12,920* 64 YRS+++	24,520
07344370 RED RIVER AT SPRING BANK, AR	140,000 3-14-2001	104,000 7-17-07	19,079* 10 YRS	32,030

* AVERAGE DISCHARGE SINCE DENISON DAM IN OPERATION
\+ HAS 75 TOTAL YEARS OF RECORD
++ HAS 76 TOTAL YEARS OF RECORD
+++HAS 70 TOTAL YEARS OF RECORD

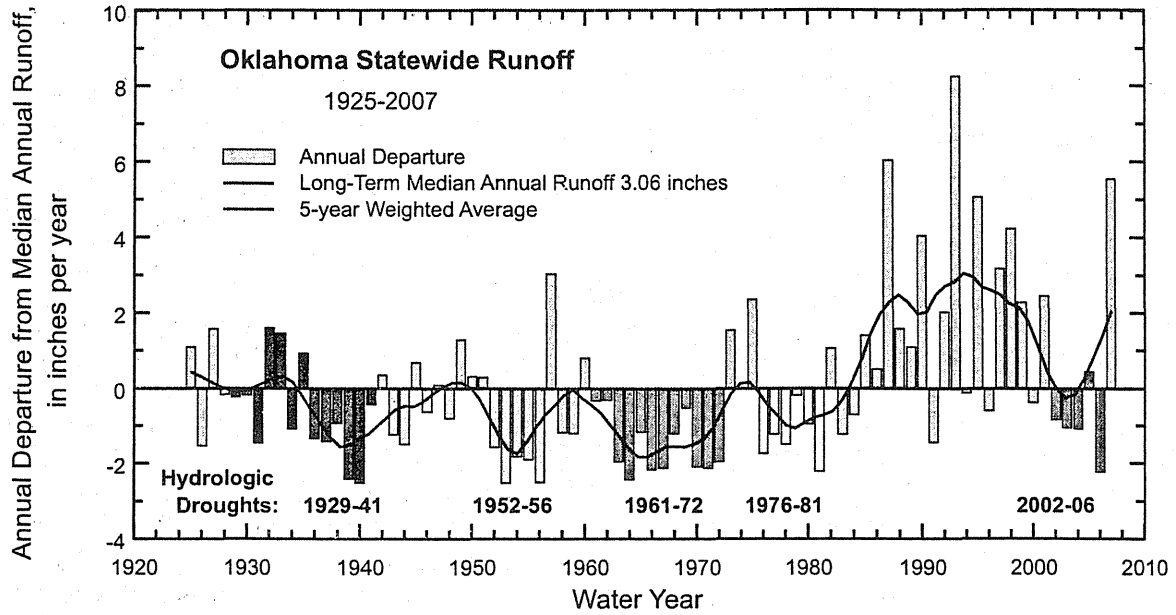

Red River Drainage Basin
States
Cities
Water Bodies
Major Streams and Rivers
Interstate Highways
Red River Watershed
Elevation (Feet)
Low: 10
High: 5,000
0
45
90
180
Miles
N
W
E
S
USGS
science for a changing world
Amarillo
Lubbock
Oklahoma City
Norman
Lawton
Wichita Falls
Tulsa
Broken Arrow
Muskogee
Fayetteville
Fort Smith
Little Rock
Pine Bluff
Hot Springs
Sherman
Denton
Fort Worth
Dallas
Longview
Tyler
Texarkana
Shreveport
Alexandria

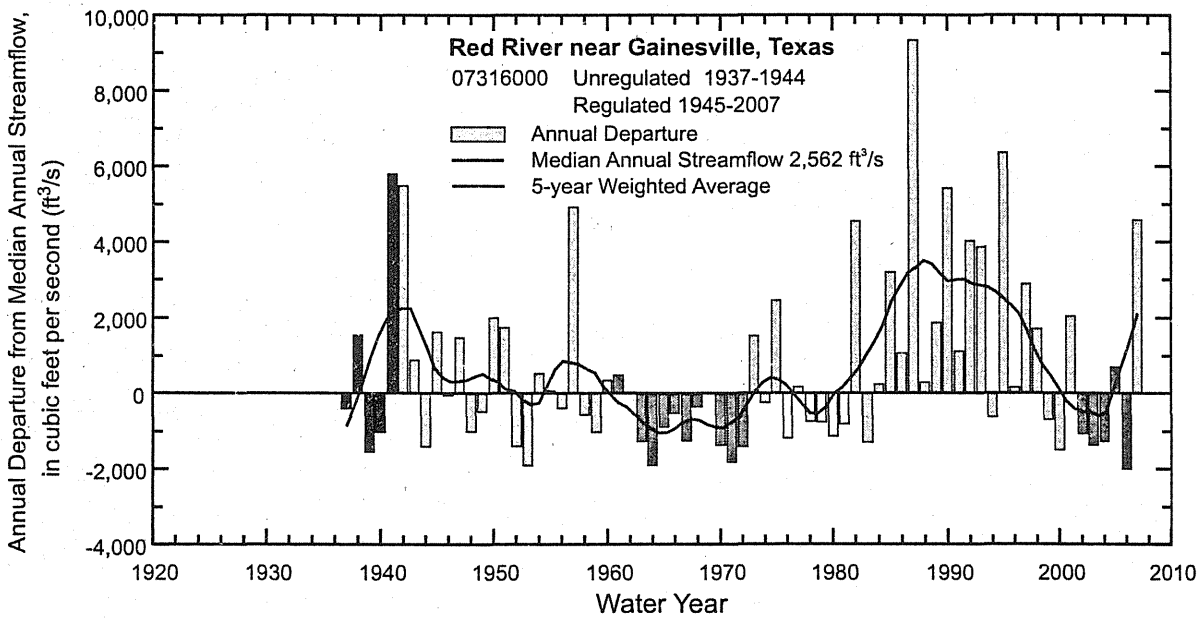
RED RIVER BASIN TRENDS IN STEAMFLOW

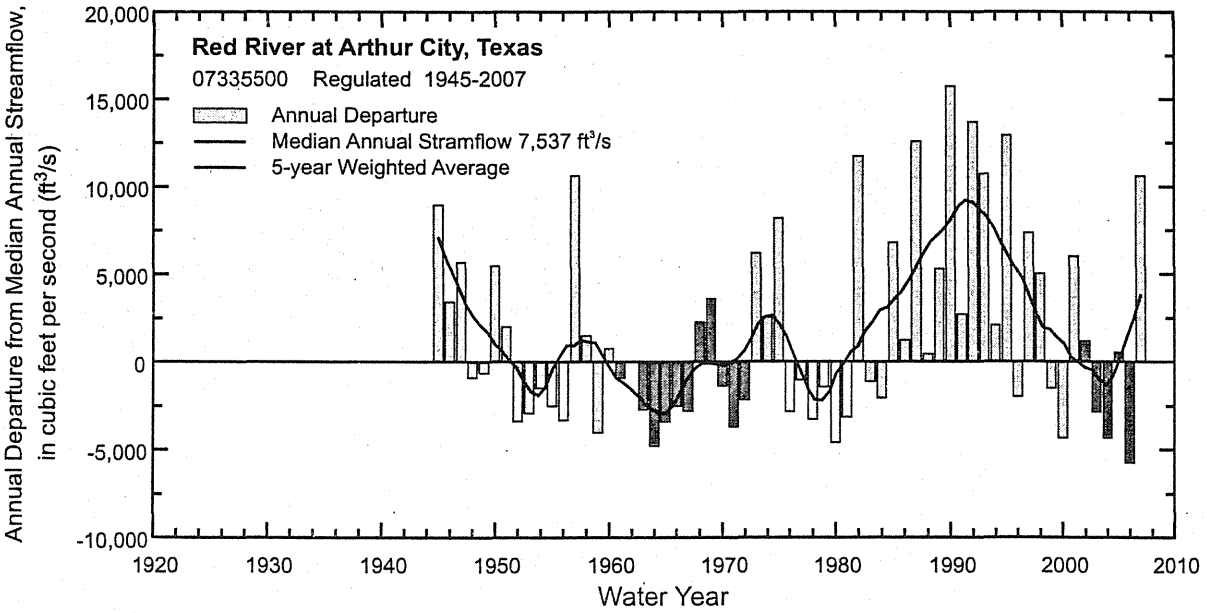


Prepared by US Geological Survey

LONG-TERM RED RIVER BASIN TRENDS IN STREAMFLOW







USGS
science for a changing world

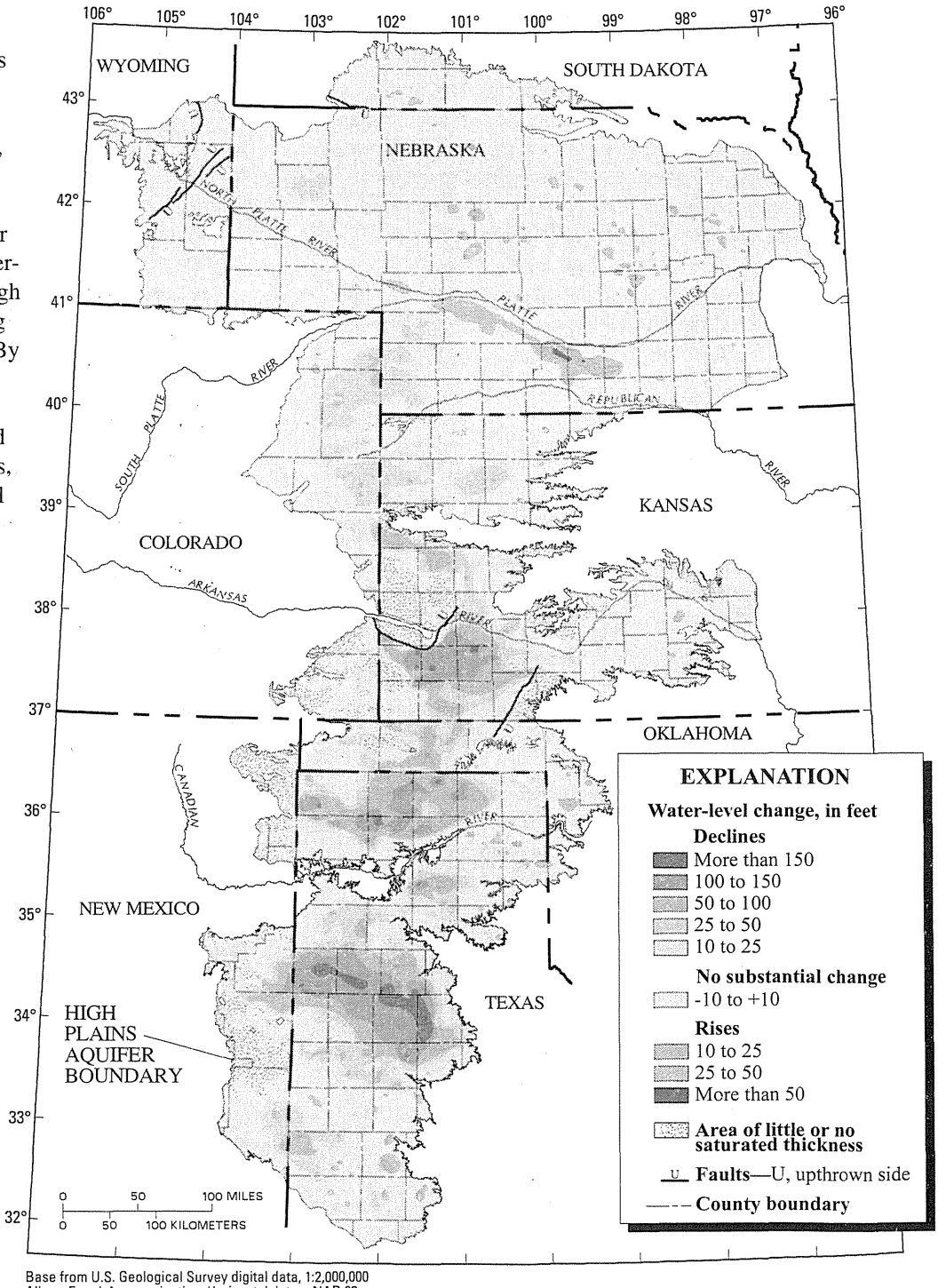
GROUND-WATER RESOURCES PROGRAM

Changes in Water Levels and Storage in the High Plains Aquifer, Predevelopment to 2005

—By V.L. McGuire

The High Plains aquifer underlies 111.4 million acres (174,000 square miles) in parts of eight States—Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming. The area overlying the High Plains aquifer is one of the major agricultural regions in the world. Water-level declines began in parts of the High Plains aquifer soon after the beginning of extensive ground-water irrigation. By 1980, water levels in the High Plains aquifer in parts of Texas, Oklahoma, and southwestern Kansas had declined more than 100 feet (Luckey and others, 1981). In response to these water-level declines, the U.S. Geological Survey (USGS), in cooperation with numerous Federal, State, and local water-resources agencies, began monitoring more than 7,000 wells in 1988 to assess annual water-level change in the aquifer. A report by the USGS, "Water-Level Changes in the High Plains Aquifer, Predevelopment to 2005 and 2003 to 2005" (McGuire, 2007), shows the areas of substantial water-level changes in the aquifer from the time prior to substantial ground-water irrigation development (predevelopment or about 1950) to 2005 (fig. 1).

In parts of the area, farmers began using ground water for irrigation extensively in the 1930s and 1940s. Estimated irrigated acreage in the area overlying the High Plains aquifer increased rapidly from 1940 to 1980 and changed slightly from 1980 to 2002: 1949—2.1 million acres, 1980—13.7 million acres, 1997—13.9 million acres, 2002—12.7 million acres. Irrigated acres in 2002 were 12 percent of the aquifer area, not including the areas with little or no saturated thickness (McGuire, 2007).



Base from U.S. Geological Survey digital data, 1:2,000,000
Albers Equal-Area projection, Horizontal datum NAD 83,
Standard parallels 29°30' and 45°30', central meridian -101°

Figure 1. Water-level changes in the High Plains aquifer, predevelopment to 2005 (modified from McGuire, 2007).

Ground-water withdrawals for irrigation and other uses are compiled and reported by the USGS and agencies in each State about every 5 years. Ground-water withdrawals from the High Plains aquifer for irrigation increased from 4 to 19 million acre-feet from 1949 to 1974. Ground-water withdrawals for irrigation in 1980, 1985, 1990, and 1995 were from 4 to 18 percent less than withdrawals for irrigation in 1974. Ground-water withdrawals from the aquifer for irrigation in 2000 were 21 million acre-feet (McGuire, 2007).

Water-level changes in the aquifer result from an imbalance between discharge and recharge. Discharge is primarily ground-water withdrawals for irrigation. Discharge also includes evapotranspiration, where the water table is near the land surface, and seepage to streams and springs, where the water table intersects with the land surface. Recharge is primarily from precipitation. Other sources of recharge are irrigation return flow and seepage from streams, canals, and reservoirs. Water-level declines may result in increased costs for ground-water withdrawals because of increased pumping lift and decreased well yields (Taylor and Alley, 2001). Water-level declines also can affect ground-water availability, surface-water flow, and near-stream (riparian) habitat areas (Alley and others, 1999).

Water-Level Changes, Predevelopment to 2005

The map of water-level changes in the High Plains aquifer from predevelopment to 2005 (fig. 1) was generated using methods described by McGuire (2007). The map is based on water levels from 3,682 wells, which were measured in predevelopment and in 2005, and other previously published data in areas with few predevelopment water levels. The areas with few predevelopment water levels are in the central part of the Nebraska Panhandle, west-central Nebraska, and southeastern Wyoming.

The water-level changes from predevelopment to 2005 ranged between a rise of 84 feet and a decline of 277 feet. Area-weighted, average water-level change from predevelopment to 2005 was a decline of 12.8 feet. Approximately 25 percent of the aquifer area had more than 10 feet of water-level decline from predevelopment to 2005; 17 percent had more than 25 feet of water-level decline, and 9 percent had more than 50 feet of water-level decline. Approximately 2 percent of the aquifer area had more than 10 feet of water-level rise from predevelopment to 2005 (McGuire, 2007).

Change in Water in Storage, Predevelopment to 2005

Total water in storage in 2005 was about 2,925 million acre-feet, which was a decline of about 253 million acre-feet (or 9 percent) since predevelopment. Water in storage for predevelopment was inferred from water in storage in 2000 and water-level changes from predevelopment to 2000. Changes in storage prior to predevelopment were not estimated (McGuire, 2007).

References Cited

Alley, W.M., Reilly, T.E., and Franke, O.L., 1999, Sustainability of ground-water resources: U.S. Geological Survey Circular 1186, 78 p., accessed March 22, 2007, at *http://pubs.usgs.gov/circ/circ1186/*

Luckey, R.R., Gutentag, E.D., and Weeks, J.B., 1981, Water-level and saturated-thickness changes, predevelopment to 1980, in the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming: U.S. Geological Survey Hydrologic Investigations Atlas HA–652, 2 sheets, scale 1:2,500,000, accessed March 22, 2007, at *http://pubs.er.usgs.gov/usgspubs/ha/ha652*

McGuire, V.L., 2007, Water-level changes in the High Plains aquifer, predevelopment to 2005 and 2003 to 2005: U.S. Geological Survey Scientific Investigations Report 2006–5324, 7 p., accessed March 22, 2007, at *http://pubs.usgs.gov/sir/2006/5324/*

Taylor, C.J., and Alley, W.M., 2001, Ground-water-level monitoring and the importance of long-term water-level data: U.S. Geological Survey Circular 1217, 68 p., accessed March 22, 2007, at *http://pubs.usgs.gov/circ/circ1217/*

Acknowledgments

The water-level data used in this report were provided by the following agencies—Colorado: State Engineer's Office; Kansas: Department of Agriculture—Division of Water Resources and Kansas Geological Survey; Nebraska: Central Nebraska Public Power and Irrigation District, Natural Resources Districts, and University of Nebraska—Lincoln, Conservation and Survey Division; New Mexico: Office of the State Engineer; Oklahoma: Water Resources Board; South Dakota: Department of Environment and Natural Resources; Texas: Water Development Board and Ground-water Conservation Districts; Wyoming: State Engineer's Office; and Federal: Bureau of Reclamation, U.S. Fish and Wildlife Service, and U.S. Geological Survey offices in Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming.

For More Information

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5231 South 19th Street
Lincoln, NE 68512
(402) 328–4100

Copies of this fact sheet may be obtained from:
U.S. Geological Survey, Information Services,
Box 25286, Denver Federal Center, Denver, CO 80225.

U.S. Department of Agriculture
Natural Resources Conservation Service

Red River Compact Commission

Annual Meeting
Marshall, Texas
April 22, 2008

W. Britt Paul, P.E.

Assistant State Conservationist

NRCS

ATTACHMENT 13

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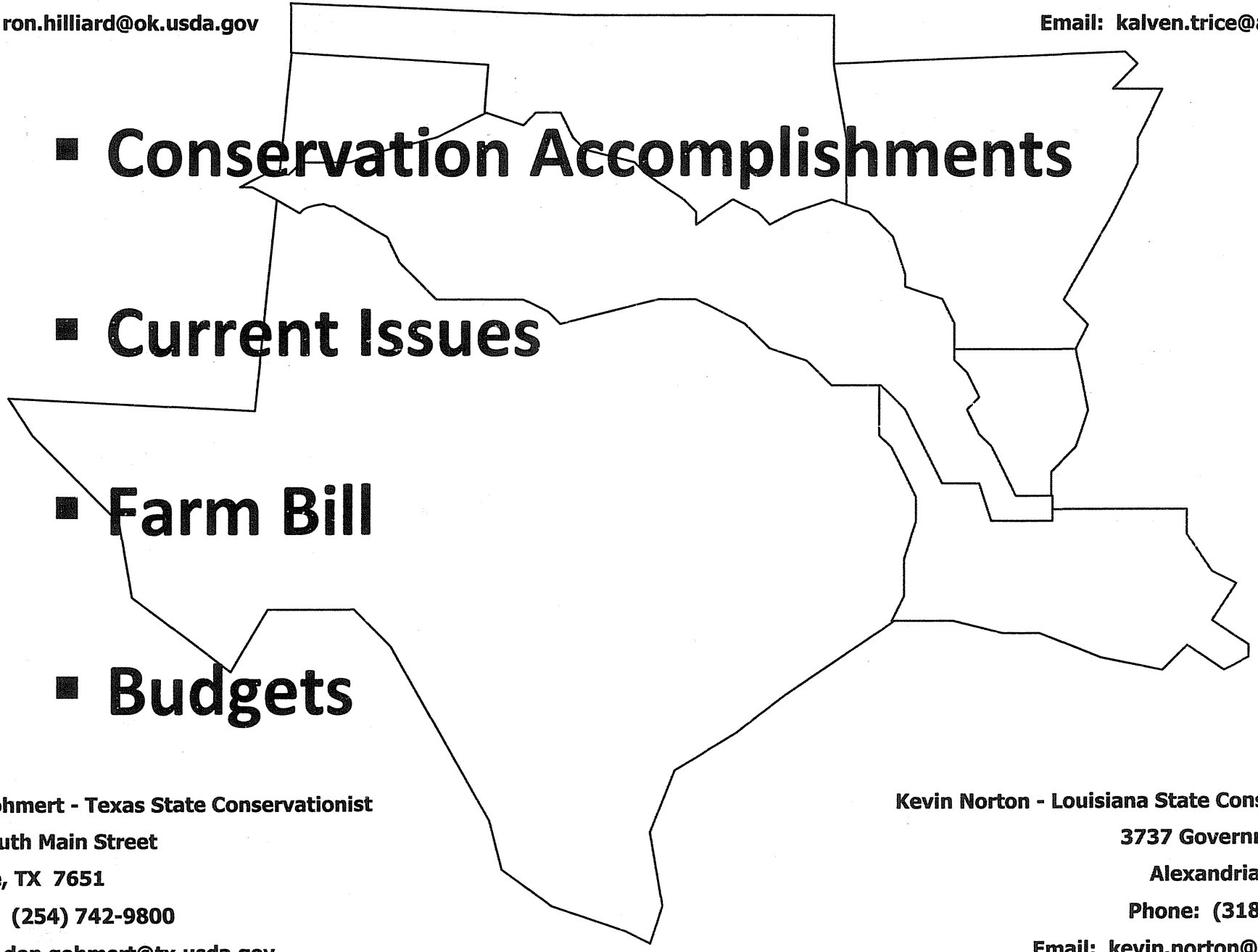
Overview



- Conservation Accomplishments
- Current Issues
- Farm Bill
- Budgets

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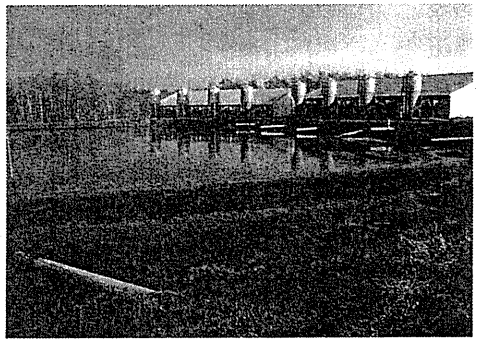
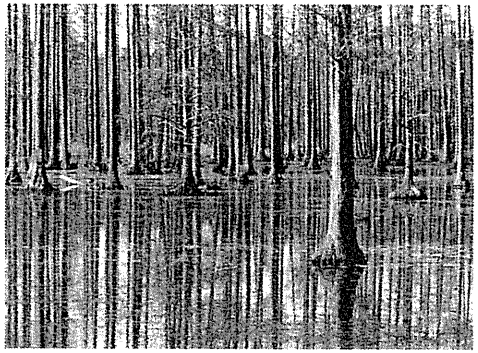
Conservation Accomplishments

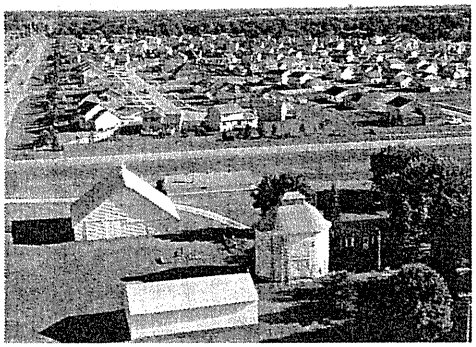


EQIP

WHIP

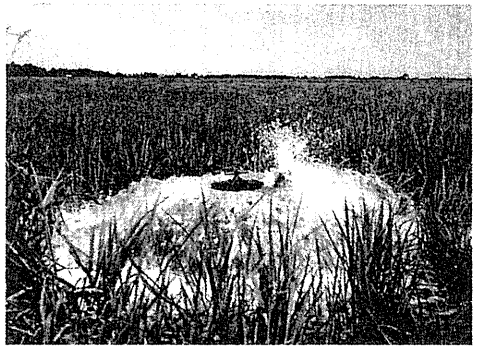


WRP



FRPP

GRP

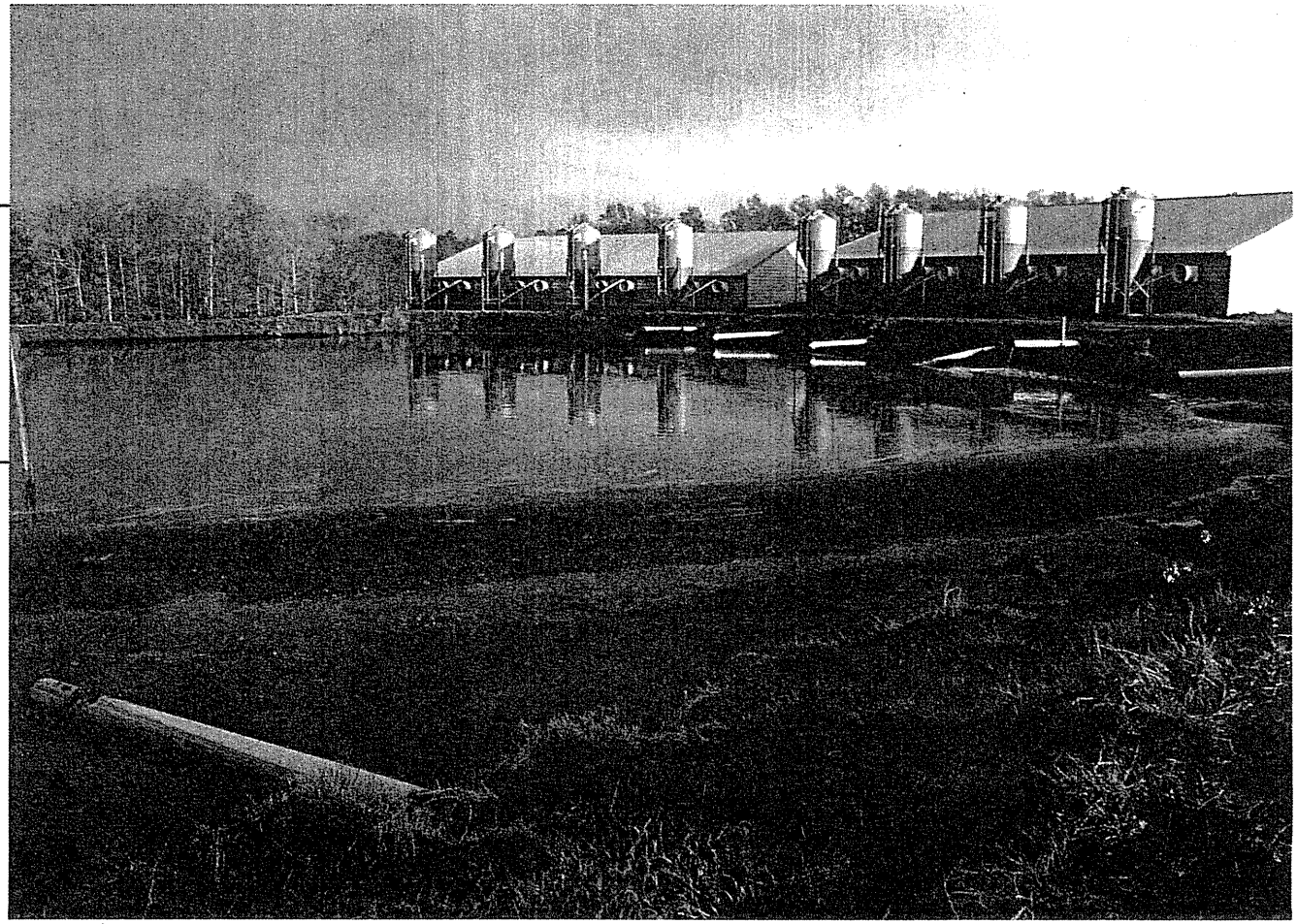


GSWC

Conservation Accomplishments

Environmental Quality Incentives Program

- Contracts – 13,883
- Acres - 4,320,451
- Dollars - $177,936,887



Conservation Accomplishments

Wildlife Habitat Incentives Program

- Contracts - 194
- Acres - 52,960
- Dollars - $1,988,443

Conservation Accomplishments

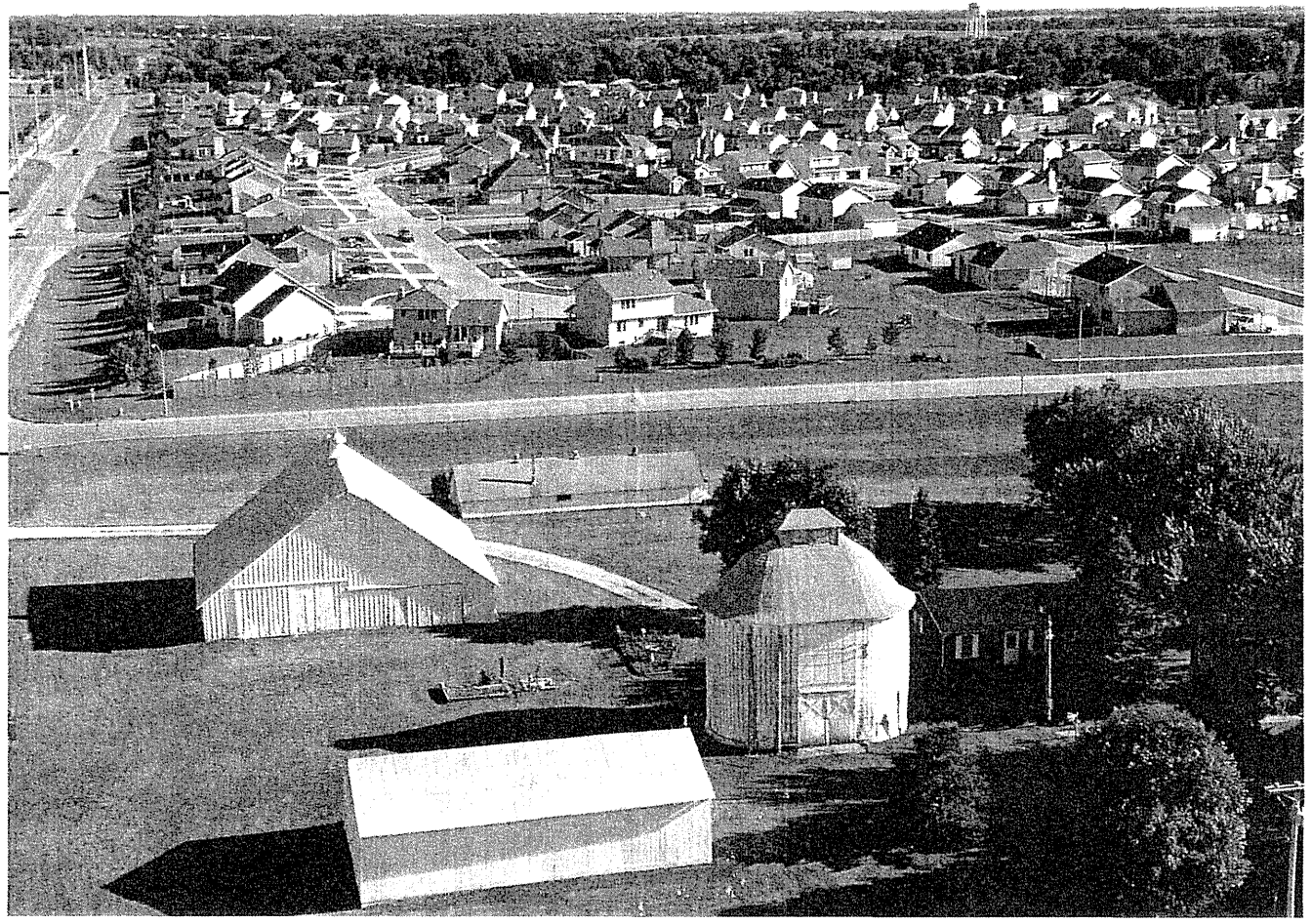
Wetlands Reserve Program

- Contracts - 156
- Acres - 55,413
- Dollars - $104,627,522

Conservation Accomplishments

Farm & Ranch Land Protection Program

- Contracts - 6
- Acres - 718
- Dollars - $1,208,700



Conservation Accomplishments

Grassland Reserve Program

- Contracts - 71
- Acres - 22,749
- Dollars - $8,145,775

Conservation Accomplishments

Ground & Surface Water Conservation

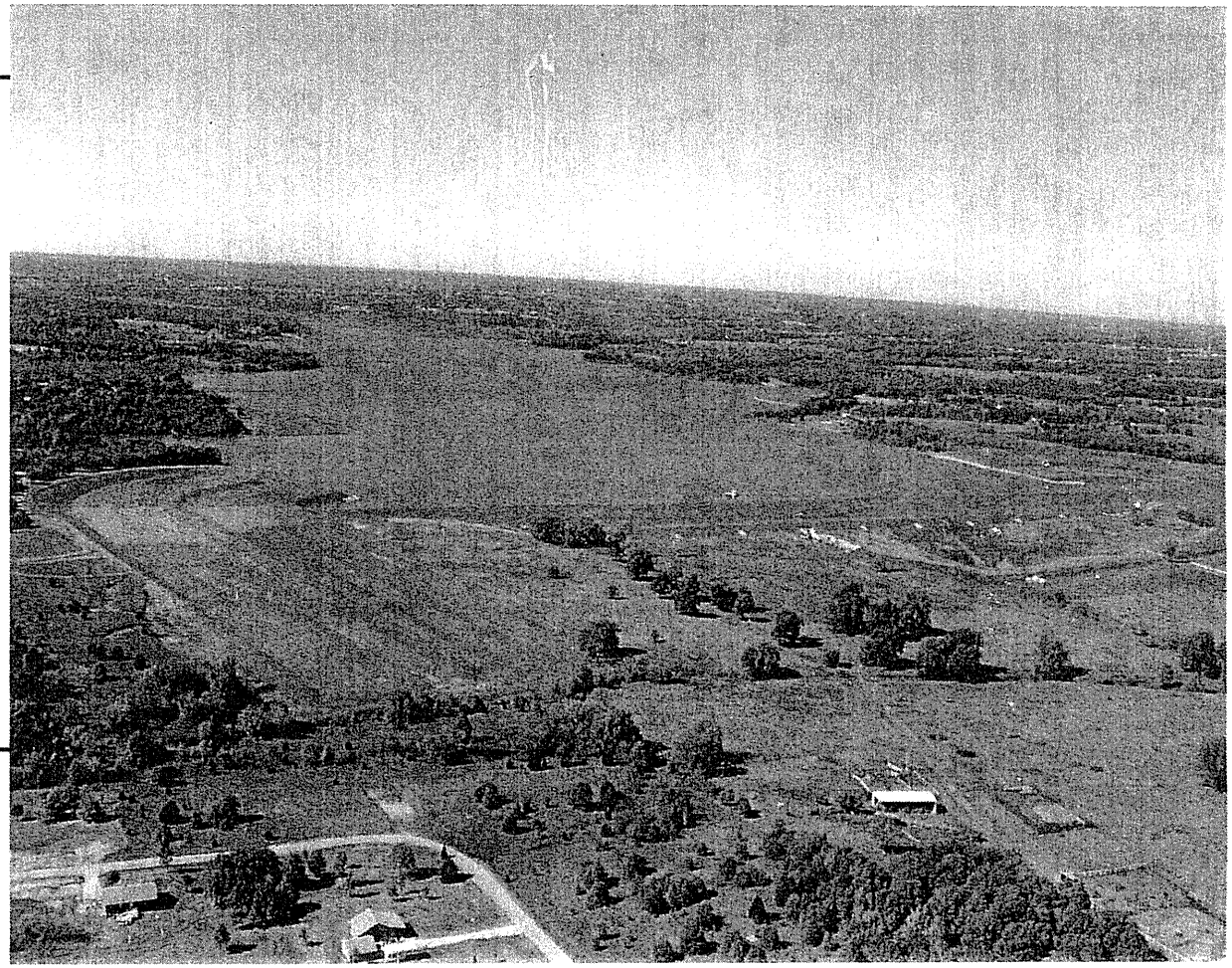
- Contracts - 691
- Acres - 214,373
- Dollars - $9,216,198

Current Issues

- Watershed Rehabilitation
- Irrigation Water Supply
- Red River Diversion to the Coast

Watershed Rehabilitation

- 11,000 NRCS dams constructed in the US
- Over 4,000 of these in the Red River Valley
- 1,020 will reach the 50yr life span in the next 10yrs



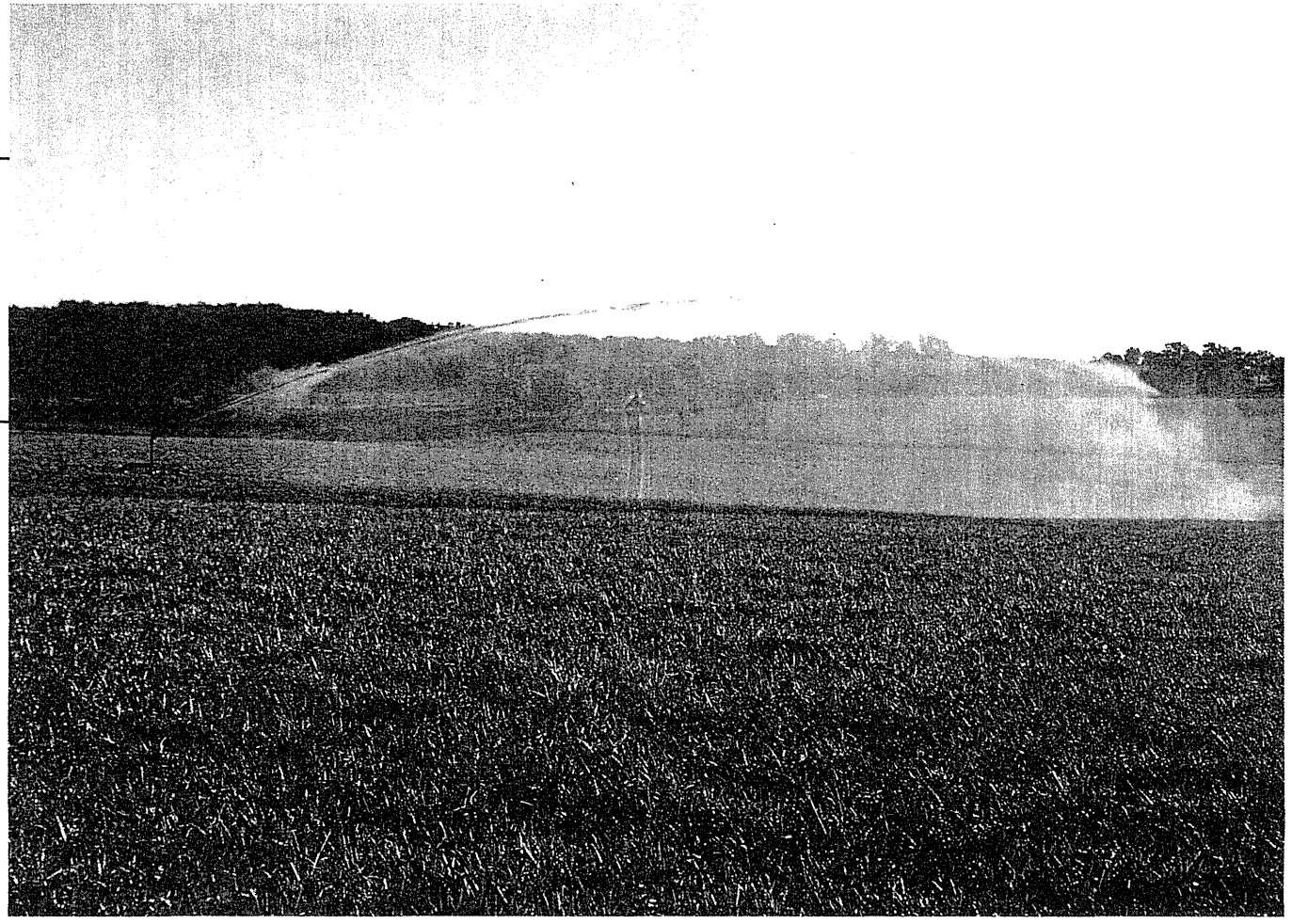
Watershed Rehabilitation

FY 2008 Dam Rehab Planned Projects

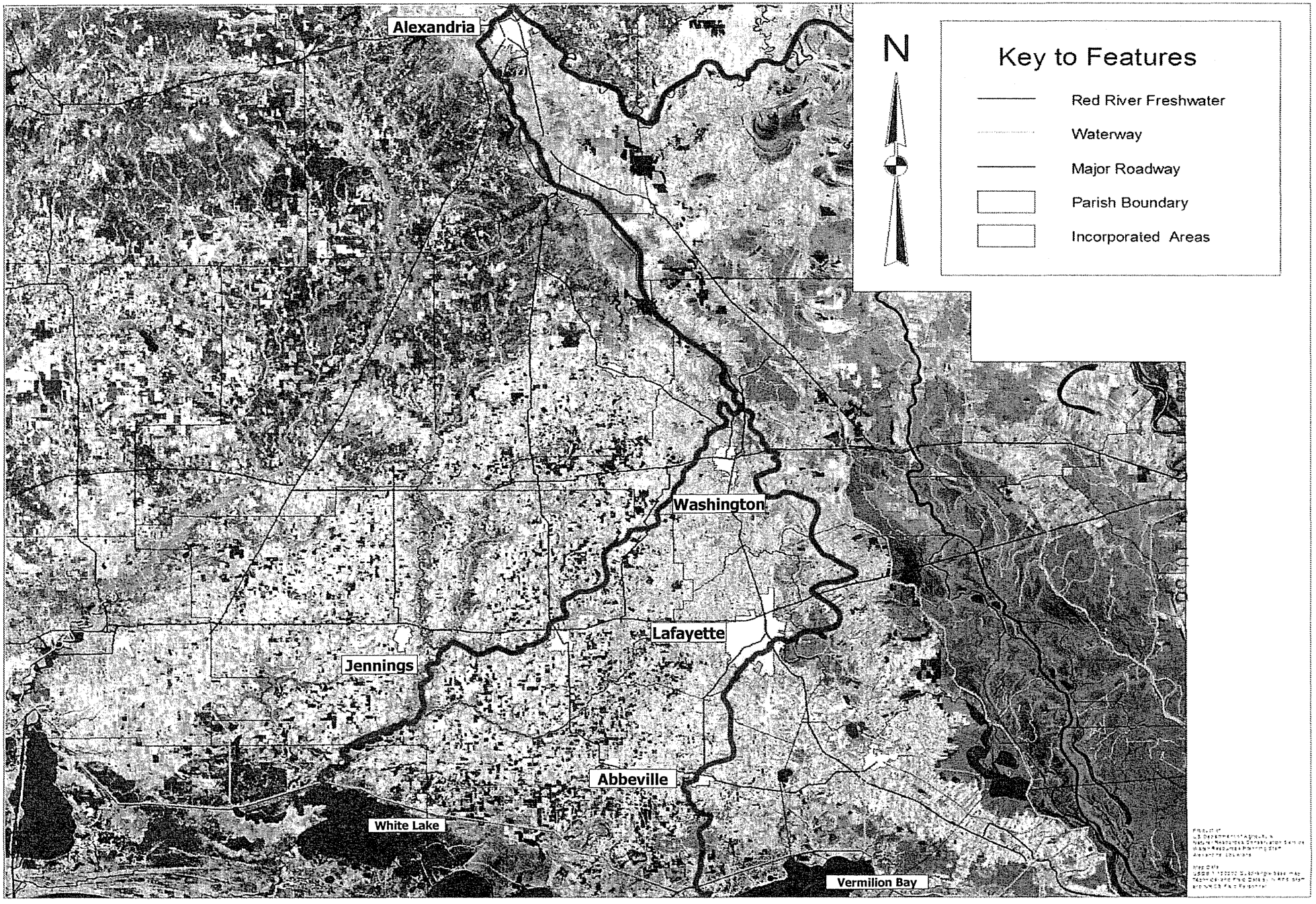
- Arkansas – 2
  - ✓(1 complete - 1 to be completed in FY08)
- Louisiana - 0
- Oklahoma - 6
  - ✓ (5 complete – 1 in planning)
- Texas - 0

Irrigation Water Supply

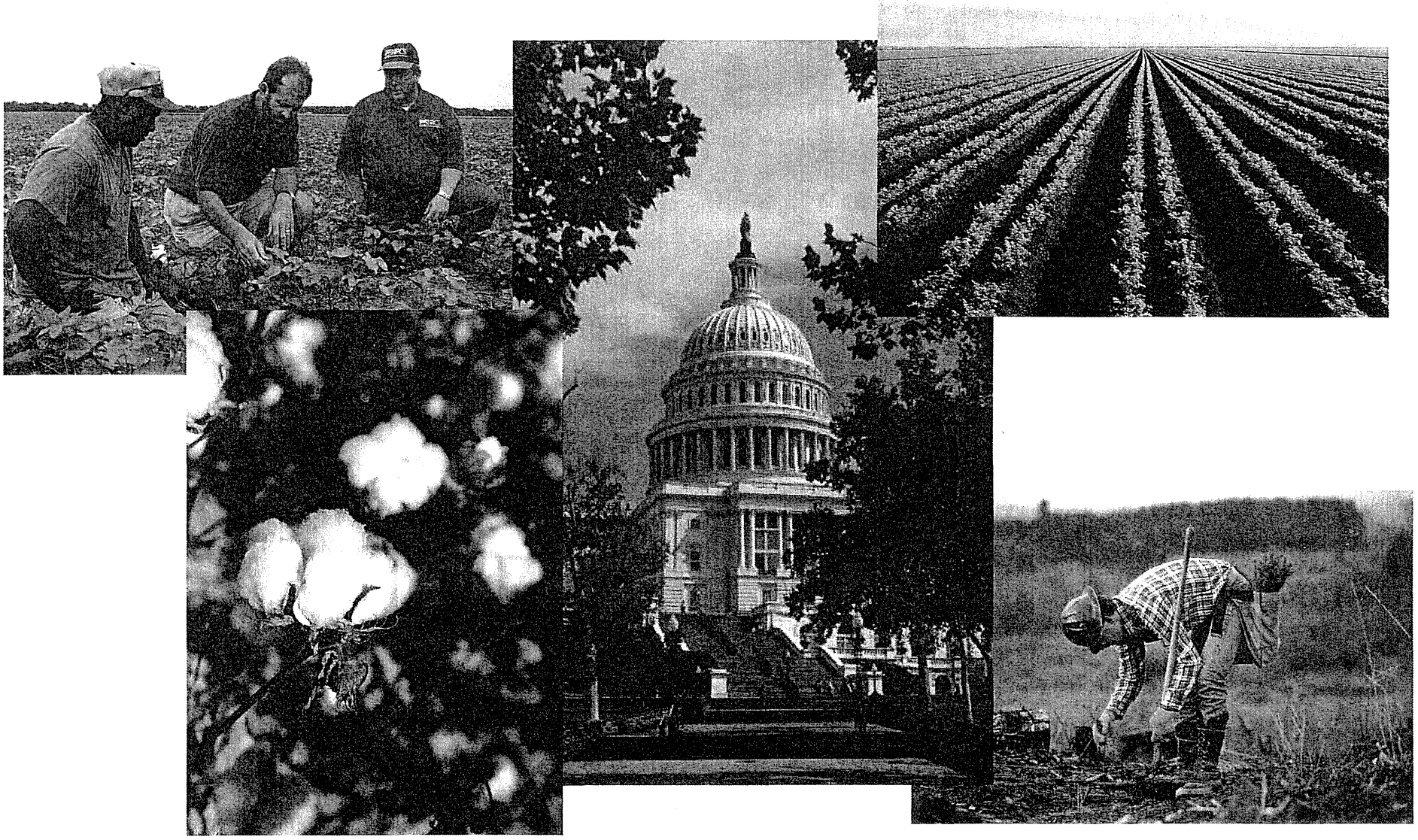
- Red Bayou
- Walnut Bayou



Red River Diversion to the Coast



2008
Farm Bill



Conservation Budget Figures

(shown in millions)

Conservation Operations	FY 2007	FY 2008	Proposed Budget FY 2009
Conservation Technical Assistance	674	741	681
Grazing Lands Conservation	0	10	0
Soil Surveys	91	92	92
Snow Surveys and Water Forecasting	11	11	11
Plant Materials Centers	12	12	11

Conservation Budget Figures

(shown in millions)

Additional Programs	FY 2007	FY 2008	Proposed Budget FY 2009
Emergency Watershed Program	186	172	0
Watershed and Flood Prevention	30	35	0
Watershed Surveys and Planning	6	0	0
Watershed Rehabilitation	35	22	6
Resource Conservation and Development	12	12	0

Conservation Budget Figures

(shown in millions)

Mandatory Programs	FY 2007	FY 2008	Proposed Budget FY 2009
Environmental Quality Incentives Programs (EQIP)	993	1000	1050
Wildlife Habitat Incentives Program (WHIP)	42	85	0
Wetland Reserve Program (WRP)	248	455	181
Farm & Ranchlands Protection Program (FRPP)	73	97	97
Grasslands Reserve Program (GRP)	13	0	0
Ground & Surface Water Conservation (GSWC)	70	60	60
Total	2,536	2,843	2,189

PLEASE WRITE CLEARLY AND FURNISH COMPLETE MAILING ADDRESS

ATTENDANCE

MEETING: Red River Compact Commission

LOCATION: Marshall Chamber of Commerce, Marshall, Texas

DATE: April 22, 2008 TIME: 8:30 a.m.

NAME	MAILING ADDRESS	REPRESENTING
Richard Brontuli	P.O. Box 709 Shreveport, LA 71162	RRVA
Tom Bohl	Tom Bohl, Asst. Atty General Natural Resources Division P.O. Box 12548 Austin 78711	Texas
Bill Abney	PO Box 1386 Marshall TX 75671	Texas
Britt Paul	3737 Govt. Street Alexandria, LA 71302	NRCS-LA
Art Theis	688 S. Lakeview Baton Rouge LA. 70810	LA Comm.
Jeff Fassett	1720 Carey Ave. Cheyenne, WY. 82001	Fed. Chair-RRCC
David Brown	2775 Altamesa Blvd Ft. Worth, TX 76133	USGS
Curtis W. Campbell	PO Box 240 Wichita Falls, TX 76307	Red River Authority of Texas
Herman Settemeyer	Austin, TX	TX
Randy Young	LR, AR	AR

PLEASE WRITE CLEARLY AND FURNISH COMPLETE MAILING ADDRESS

ATTENDANCE

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DATE: April 22, 2008 TIME: 8:30 a.m.

NAME	MAILING ADDRESS	REPRESENTING
EARL SMITH	Little Rock	Arkansas
EDWARD SWAIM	101 E CAPITOL AVE STE 350 LR AR 72201	ARK. NATL. RES. COMM'N
WALID MAHER	3800 N. Classen Blvd OKC Okla. 73118	Okla. Water Resources Board
Dean Couch	"	"
Deane Smith		OK-Com
Tom Buchanan	520 P.O. Box Altus OK	LAID
Mark Nichols	16545 SCR 206 Altus OK	OWRB
Charles Dobbs	PO Box 1148 Altus OK 73522	ok commissioner
KEN BRAZIL	ARKANSAS	ARKANSAS

PLEASE WRITE CLEARLY AND FURNISH COMPLETE MAILING ADDRESS

ATTENDANCE

MEETING: Red River Compact Commission

LOCATION: Marshall Chamber of Commerce, Marshall, Texas

DATE: April 22, 2008 TIME: 8:30 a.m.

NAME	MAILING ADDRESS	REPRESENTING
Jim Parks	505 E Brown PO Box 2408 Wylie Tx 75098	NTMWD
Mike Rickman	"	"
Rich Bilinski	Tulsa OK	Corps of Engr Tulsa Dist
Bo Bolourchi	B.R., LA.	LA DOTD
Max Forbes	RR LA	LA DOTD
Josh Gilbert	3535 S. Sherwood B.R. LA 70816	USGS
Walt Sears	Box 955, Hughes Springs, Tx 75656	NETMWD
Gary C. Ethridge	LA DOTD Office of Gen. Counsel 70804 POB 94245 Baton Rouge, LA	LA DOTD
John Doe	Oklahoma City, OK	U.S.B.R.

PLEASE WRITE CLEARLY AND FURNISH COMPLETE MAILING ADDRESS

ATTENDANCE

MEETING: Red River Compact Commission

LOCATION: Marshall Chamber of Commerce, Marshall, Texas

DATE: April 22, 2008 TIME: 8:30 a.m.

NAME	MAILING ADDRESS	REPRESENTING
Derek Smithee	3800 N. Classen OKC, OK 73118	OWRB
RICK STRAHAN	5316 HWY 290 W AUSTIN, TX	RECLAMATION
Jerry Barnett	3800 North Classen Oklahoma City, OK 73118	Okla. Water Resources Board
Bob Blazs	USGS-OK 202 NW 66th Bldg 7 OKC 73116	USGS-OK
Elizabeth Ivy	571 Clay Street Vicksburg, MS 39180	USACE-MVK

PLEASE WRITE CLEARLY AND FURNISH COMPLETE MAILING ADDRESS

ATTENDANCE

MEETING: Red River Compact Commission

LOCATION: Marshall Chamber of Commerce, Marshall, Texas

DATE: April 22, 2008 TIME: 8:30 a.m.

NAME	MAILING ADDRESS	REPRESENTING
Mike Abate	Tulsa, OK	Corps of Engineers

RED RIVER BASIN STREAMFLOW GAGING AND WATER QUALITY MONITORING STATIONS

STREAMFLOW GAGES

07337000	RED RIVER AT INDEX, AR
07340000	LITTLE RIVER NEAR HORATIO, AR
07362000	OUACHITA RIVER AT CAMDEN, AR
07362100	SMACKOVER CREEK NEAR SMACKOVER, AR
07363500	SALINE RIVER NEAR RYE, AR
07364150	BAYOU BARTHOLOMEW NEAR MCGEHEE, AR
07369680	BAYOU MACON AT EUDORA, AR
073344370	RED RIVER AT SPRING BANK, AR
073364100	OUACHITA RIVER NEAR ARKANSAS-LOUISIANA STATE LINE
07300500	SALT FORK RED RIVER AT MANGUM, OK
073301420	SWEETWATER CREEK NEAR SWEETWATER, OK
07301500	NORTH FORK RED RIVER NEAR CARTER, OK
07315500	RED RIVER NEAR TERRAL, OK
07316000	RED RIVER NEAR GAINESVILLE, TX
07316500	WASHITA RIVER NEAR CHEYENNE, OK
07331000	WASHITA RIVER NEAR DICKSON, OK
07300000	SALT FORK RED RIVER NEAR WELLINGTON, TX
07308500	RED RIVER NEAR BURKBURNETT, TX
07331600	RED RIVER AT DENISON DAM NEAR DENISON, TX
07335500	RED RIVER AT ARTHUR CITY, TX

WATER QUALITY MONITORING STATIONS

07337000	RED RIVER AT INDEX, AR
07362000	OUACHITA RIVER AT CAMDEN, AR
07364150	BAYOU BARTHOLOMEW NEAR MCGEHEE, AR
07350500	RED RIVER AT COUSHATTA, LA
07355500	RED RIVER AT ALEXANDRIA, LA
07301500	NORTH FORK RED RIVER NEAR CARTER, OK
07315500	RED RIVER NEAR TERRAL, OK
07316000	RED RIVER NEAR GAINESVILLE, TX
07331000	WASHITA RIVER NEAR DICKSON, OK
07300000	SALT FORK RED RIVER NEAR WELLINGTON, TX
07308500	RED RIVER NEAR BURKBURNETT, TX
07331600	RED RIVER AT DENISON DAM NEAR DENISON, TX

For information on stream gage and water quality monitoring stations in Arkansas, please go to the following USGS web address http://ar.water.usgs.gov . The tool bar on the right side of the page presents options to obtain streamflow information and water quality information.

For information on stream gage and water quality monitoring stations in Louisiana, please go to the following USGS web address http://la.water.usgs.gov . Please click on the tool bar on the top of the page name "Louisiana Hydrowatch."

For information on stream gage and water quality monitoring stations in Oklahoma, please go to the following USGS web address http://ok.water.usgs.gov . This will open a page for the NWISWeb Data for Oklahoma. The tool bar on the right side of the page presents options to obtain streamflow information and water quality information.

For information on stream gage and water quality monitoring stations in Texas, please go to the following USGS web address http://tx.usgs.gov . The tool bar on the right side of the page presents options to obtain streamflow information and water quality information.

RED RIVER COMPACT

ARKANSAS-LOUISIANA-OKLAHOMA-TEXAS

MAY 12, 1978

PREAMBLE

The States of Arkansas, Louisiana, Oklahoma, and Texas, pursuant to the acts of their respective Governors or Legislatures, or both, being moved by considerations of interstate comity, have resolved to compact with respect to the water of the Red River and its tributaries. By Act of Congress, Public Law No. 346 (84th Congress, First Session), the consent of the United States has been granted for said states to negotiate and enter into a compact providing for an equitable apportionment of such water; and pursuant to that Act the President has designated the representative of the United States.

Further, the consent of Congress has been given for two or more states to negotiate and enter into agreements relating to water pollution control by the provisions of the Federal Water Pollution Control Act (P.L. 92-500, 33 U.S.C. §§ 1251 et seq.).

The Signatory States acting through their duly authorized Compact Commissioners, after several years of negotiations, have agreed to an equitable apportionment of the water of the Red River and its tributaries and do hereby submit and recommend that this Compact be adopted by the respective Legislatures and approved by Congress as hereinafter set forth:

ARTICLE I

PURPOSES

SECTION 1.01 The principal purposes of this Compact are:

(a) To promote interstate comity and remove causes of controversy between each of the affected states by governing the use, control and distribution of the interstate water of the Red River and its tributaries;

(b) To provide an equitable apportionment among the Signatory States of the water of the Red River and its tributaries;

(c) To promote an active program for the control and alleviation of natural deterioration and pollution of the water of the Red River Basin and to provide for enforcement of the laws related thereto;

(d) To provide the means for an active program for the conservation of water, protection of lives and property from floods, improvement of water quality, development of navigation and regulation of flows in the Red River Basin; and

(e) To provide a basis for state or joint state planning and action by ascertaining and identifying each state's share in the interstate water of the Red River Basin and the apportionment thereof.

ARTICLE II

GENERAL PROVISIONS

SECTION 2.01 Each Signatory State may use the water allocated to it by this Compact in any manner deemed beneficial by that state. Each state may freely administer water rights and uses in accordance with the laws of that state, but such uses shall be subject to the availability of water in accordance with the apportionments made by this Compact.

SECTION 2.02 The use of water by the United States in connection with any individual Federal project shall be in accordance with the Act of Congress authorizing the project and the water shall be charged to the state or states receiving the benefit therefrom.

SECTION 2.03 Any Signatory State using the channel of Red River or its tributaries to convey stored water shall be subject to an appropriate reduction in the amount which may be withdrawn at the point of removal to account for transmission losses.

SECTION 2.04 The failure of any state to use any portion of the water allocated to it shall not constitute relinquishment or forfeiture of the right to such use.

SECTION 2.05 Each Signatory State shall have the right to:

(a) Construct conservation storage capacity for the impoundment of water allocated by this Compact;

(b) Replace within the same area any storage capacity recognized or authorized by this Compact made unusable by any cause, including losses due to sediment storage;

(c) Construct reservoir storage capacity for the purposes of flood and sediment control as well as storage of water which is either imported or is to be exported if such storage does not adversely affect the delivery of water apportioned to any other Signatory State; and

(d) Use the bed and banks of the Red River and its tributaries to convey stored water, imported or exported water, and water apportioned according to this Compact.

SECTION 2.06 Signatory States may cooperate to obtain construction of facilities of joint benefits to such states.

SECTION 2.07 Nothing in this Compact shall be deemed to impair or affect the powers, rights, or obligations of the United States, or those claiming under its authority, in, over and to water of the Red River Basin.

SECTION 2.08 Nothing in this Compact shall be construed to include within the water apportioned by this Compact any water consumed in each state by livestock or for domestic purposes; provided, however, the storage of such water is in accordance with the laws of the respective states but any such impoundment shall not exceed 200 acre-feet, or such smaller quantity as may be provided for by the laws of each state.

SECTION 2.09 In the event any state shall import water into the Red River Basin from any other river basin, the Signatory State making the importation shall have the use of such imported water.

SECTION 2.10 Nothing in this Compact shall be deemed to:

(a) Interfere with or impair the right or power of any Signatory State to regulate within its boundaries the appropriation, use, and control of water, or quality of water, not inconsistent with its obligations under this Compact;

(b) Repeal or prevent the enactment of any legislation or the enforcement of any requirement by any Signatory State imposing any additional conditions or restrictions to further lessen or prevent the pollution or natural deterioration of water within its jurisdiction; provided nothing contained in this paragraph shall alter any provisions of this Compact dealing with the apportionment of water or the rights thereto; or

(c) Waive any state's immunity under the Eleventh Amendment of the Constitution of the United States, or as constituting the consent of any state to be sued by its own citizens.

SECTION 2.11 Accounting for apportionment purposes on interstate streams shall not be mandatory under the terms of the Compact until one or more affected states deem the accounting necessary.

SECTION 2.12 For the purposes of apportionment of the water among the Signatory States, the Red River is hereby divided into the following major subdivisions:

(a) Reach I - the Red River and tributaries from the New Mexico-Texas state boundary to Denison Dam;

(b) Reach II - the Red River from Denison Dam to the point where it crosses the Arkansas-Louisiana state boundary and all tributaries which contribute to the flow of the River within this reach;

(c) Reach III - the tributaries west of the Red River which cross the Texas-Louisiana state boundary, the Arkansas-Louisiana state boundary, and those which cross both the Texas-Arkansas state boundary and the Arkansas-Louisiana state boundary;

(d) Reach IV - the tributaries east of the Red River in Arkansas which cross the Arkansas-Louisiana state boundary; and

(e) Reach V - that portion of the Red River and tributaries in Louisiana not included in Reach III or in Reach IV.

SECTION 2.13 If any part or application of this Compact shall be declared invalid by a court of competent jurisdiction, all other severable provisions and applications of this Compact shall remain in full force and effect.

SECTION 2.14 Subject to the availability of water in accordance with this Compact, nothing in this Compact shall be held or construed to alter, impair, or increase, validate, or prejudice any existing water right or right of water use that is legally recognized on the effective date of this Compact by either statutes or courts of the Signatory State within which it is located.

ARTICLE III

DEFINITIONS

SECTION 3.01 In this Compact:

(a) The States of Arkansas, Louisiana, Oklahoma, and Texas are referred to as "Arkansas", "Louisiana", "Oklahoma", and "Texas", respectively, or individually as "State" or "Signatory State", collectively as "States" or "Signatory States."

(b) The term "Red River" means the stream below the crossing of the Texas-Oklahoma state boundary at longitude 100 degrees west.

(c) The term "Red River Basin" means all of the natural drainage area of the Red River and its tributaries east of the New Mexico-Texas state boundary and above its junction with Atchafalaya and Old Rivers.

(d) The term "water of the Red River Basin" means the water originating in any part of the Red River Basin and flowing to or in the Red River or any of its tributaries.

(e) The term "tributary" means any stream which contributes to the flow of the Red River.

(f) The term "interstate tributary" means a tributary of the Red River, the drainage area of which includes portions of two (2) or more Signatory States.

(g) The term "intrastate tributary" means a tributary of the Red River, the drainage area of which is entirely within a single Signatory State.

(h) The term "Commission" means the agency created by Article IX of this Compact for the administration thereof.

(i) The term "pollution" means the alteration of the physical, chemical, or biological characteristics of water by the acts or instrumentalities of man which create or are likely to result in a material and adverse effect upon human beings, domestic or wild animals, fish and other aquatic life, or adversely affect any other lawful use of such water; provided, that for the purposes of this Compact, "pollution" shall not mean or include "natural deterioration."

(j) The term "natural deterioration" means the material reduction in the quality of water resulting from the leaching of solubles from the soils and rocks through or over which the water flows naturally.

(k) The term "designated water" means water released from storage, paid for by non-Federal interests, for delivery to a specific point of use or diversion.

(l) The term "undesignated water" means all water released from storage other than "designated water."

(m) The term "conservation storage capacity" means that portion of the active capacity of reservoirs available for the storage of water for subsequent beneficial use, and it excludes any portion of the capacity of reservoirs allocated solely to flood control and sediment control, or either of them.

(n) The term "runoff" means both the portion of precipitation which runs off the surface of a drainage area and that portion of the precipitation that enters the streams after passing through the portions of the earth.

ARTICLE IV

APPORTIONMENT OF WATER - REACH I

OKLAHOMA - TEXAS

Subdivision of Reach I and apportionment of water therein.

Reach I of the Red River is divided into topographical subbasins, with the water therein allocated as follows:

SECTION 4.01 Subbasin 1- Interstate streams - Texas.

(a) This includes the Texas portion of Buck Creek, Sand (Lebos) Creek, Salt Fork Red River, Elm Creek, North Fork Red River, Sweetwater Creek, and Washita River, together with all their tributaries in Texas which lie west of the 100th Meridian.

(b) The annual flow within this subbasin is hereby apportioned sixty percent (60%) to Texas and forty percent (40%) to Oklahoma.

SECTION 4.02 Subbasin 2 - Intrastate and interstate streams - Oklahoma.

(a) This subbasin is composed of all tributaries of the Red River in Oklahoma and portions thereof upstream to the Texas-Oklahoma state boundary at longitude one hundred degrees west, beginning from Denison Dam and upstream to and including Buck Creek.

(b) The State of Oklahoma shall have free and unrestricted use of the water of this subbasin.

SECTION 4.03 Subbasin 3 - Intrastate streams - Texas.

(a) This includes the tributaries of the Red River in Texas, beginning from Denison Dam and upstream to and including Prairie Dog Town Fork Red River.

(b) The State of Texas shall have free and unrestricted use of the water in this subbasin.

SECTION 4.04 Subbasin 4 - Main stem of the Red River and Lake Texoma.

(a) This subbasin includes all of Lake Texoma and the Red River beginning at Denison Dam and continuing upstream to the Texas-Oklahoma state boundary at longitude one hundred degrees west.

(b) The storage of Lake Texoma and flow from the main stem of the Red River into Lake Texoma is apportioned as follows:

(1) Oklahoma 200,000 acre-feet and Texas 200,000 acre-feet, which quantities shall include existing allocations and uses; and

(2) Additional quantities in a ratio of fifty percent (50%) to Oklahoma and fifty percent (50%) to Texas.

SECTION 4.05 Special Provisions.

(a) Texas and Oklahoma may construct, jointly or in cooperation with the United States, storage or other facilities for the conservation and use of water; provided that any facilities constructed on the Red River boundary between the two states shall not be inconsistent with the Federal legislation authorizing Denison Dam and Reservoir project.

(b) Texas shall not accept for filing, or grant a permit, for the construction of a dam to impound water solely for irrigation, flood control, soil conservation, mining and recovery of minerals, hydroelectric power, navigation, recreation and pleasure, or for any other purpose other than for domestic, municipal, and industrial water supply, on the main stem of the North Fork Red River or any of its tributaries within Texas above Lugert-Altus Reservoir until the date that imported water sufficient to meet the municipal and irrigation needs of Western Oklahoma is provided, or until January 1, 2000, whichever occurs first.

ARTICLE V

APPORTIONMENT OF WATER - REACH II

ARKANSAS, OKLAHOMA, TEXAS AND LOUISIANA

Subdivision of Reach II and allocation of water therein. Reach II of the Red River is divided into topographic subbasins, and the water therein is allocated as follows:

SECTION 5.01 Subbasin 1 - Intrastate streams - Oklahoma.

(a) This subbasin includes those streams and their tributaries above existing, authorized or proposed last downstream major damsites, wholly in Oklahoma and flowing into Red River below Denison Dam and above the Oklahoma-Arkansas state boundary. These streams and their tributaries with existing, authorized or proposed last downstream major damsites are as follows: Location Stream Site Ac-ft Latitude Longitude Island-Bayou Albany 85,200 33 51.5'N 96 11.4'W Blue River Durant 147,000 33 55.5'N 96 04.2'W Boggy River Boswell 1,243,800 34 01.6'N 95 45.0'W Kiamichi River Hugo 240,700 34 01.0'N 95 22.6'W

(b) Oklahoma is apportioned the water of this subbasin and shall have unrestricted use thereof.

SECTION 5.02 Subbasin 2 - Intrastate streams - Texas.

(a) This subbasin includes those streams and their tributaries above existing authorized or proposed last downstream major damsites, wholly in Texas and flowing into Red River below Denison Dam and above the Texas-Arkansas state boundary. These streams and their tributaries with existing, authorized or proposed last downstream major damsites are as follows: Location Stream Site Ac-ft Latitude Longitude Shawnee Creek Randall Lake 5,400 33 48.1'N 96 34.8'W Brushy Creek Valley Lake 15,000 33 38.7'N 96 21.5'W New Bonham Bois d'Arc Creek Reservoir 130,600 33 42.9'N 95 58.2'W Coffee Mill Coffee Mill Creek Lake 8,000 33 44.1'N 95 58.0'W Sandy Creek Lake Crockett 3,900 33 44.5'N 95 55.5'W Sanders Creek Pat Mayse 124,500 33 51.2'N 95 32.9'W Pine Creek Lake Crook 11,011 33 43.7'N 95 34.0'W Big Pine Creek Big Pine Lake 138,600 33 52.0'N 95 11.7'W Pecan Bayou Pecan Bayou 625,000 33 41.1'N 94 58.7'W Mud Creek Liberty Hill 97,700 33 33.0'N 94 29.3'W KVW Ranch Mud Creek Lakes (3) 3,440 33 34.8'N 94 27.3'W

(b) Texas is apportioned the water of this subbasin and shall have unrestricted use thereof.

SECTION 5.03 Subbasin 3 - Interstate Streams - Oklahoma and Arkansas.

(a) This subbasin includes Little River and its tributaries above Millwood Dam.

(b) The States of Oklahoma and Arkansas shall have free and unrestricted use of the water of this subbasin within their respective states, subject, however, to the limitation that Oklahoma shall allow a quantity of water equal to forty percent (40%) of the total runoff originating below the following existing, authorized or proposed last downstream major damsites in Oklahoma to flow into Arkansas: Location Stream Site Ac-ft Latitude Longitude Little River Pine Creek 70,500 34 06.8'N 95 04.9'W Glover Creek Lukfata 258,600 34 08.5'N 94 55.4'W Mountain Fork River Broken Bow 470,100 34 08.9'N 94 41.2'W

(c) Accounting will be on an annual basis unless otherwise deemed necessary by the States of Arkansas and Oklahoma.

SECTION 5.04 Subbasin 4 - Interstate streams - Texas and Arkansas.

(a) This subbasin shall consist of those streams and their tributaries above existing, authorized or proposed last downstream major damsites, originating in Texas and crossing the Texas-Arkansas state boundary before flowing into the Red River in Arkansas. These streams and their tributaries with existing, authorized or proposed last downstream major damsites are as follows: Location Stream Site Ac-ft Latitude Longitude McKinney Bayou Trib. Bringle Lake 3,052 33 30.6'N 94 06.2'W Barkman Barkman Creek Reservoir 15,900 33 29.7'N 94 10.3'W Sulphur River Texarkana 386,900 33 18.3'N 94 09.6'W

(b) The State of Texas shall have the free and unrestricted use of the water of this subbasin.

SECTION 5.05 Subbasin 5 - Main stem of the Red River and tributaries.

(a) This subbasin includes that portion of the Red River, together with its tributaries, from Denison Dam down to the Arkansas-Louisiana state boundary, excluding all tributaries included in the other four subbasins of Reach II.

(b) Water within this subbasin is allocated as follows:

(1) The Signatory States shall have equal rights to the use of runoff originating in subbasin 5 and undesignated water flowing into subbasin 5, so long as the flow of the Red River at the Arkansas-Louisiana state boundary is 3,000 cubic feet per second or more, provided no state is entitled to more than twenty-five percent (25%) of the water in excess of 3,000 cubic feet per second.

(2) Whenever the flow of the Red River at the Arkansas-Louisiana state boundary is less than 3,000 cubic feet per second, but more than 1,000 cubic feet per second, the States of Arkansas, Oklahoma, and Texas shall allow to flow into the

Red River for delivery to the State of Louisiana a quantity of water equal to forty percent (40%) of the total weekly runoff originating in subbasin 5 and forty percent (40%) of undesignated water flowing into subbasin 5; provided, however, that this requirement shall not be interpreted to require any state to release stored water.

(3) Whenever the flow of the Red River at the Arkansas-Louisiana state boundary falls below 1,000 cubic feet per second, the States of Arkansas, Oklahoma, and Texas shall allow a quantity of water equal to all the weekly runoff originating in subbasin 5 and all undesignated water flowing into subbasin 5 within their respective states to flow into the Red River as required to maintain a 1,000 cubic foot per second flow at the Arkansas-Louisiana state boundary.

(c) Whenever the flow at Index, Arkansas, is less than 526 cfs, the States of Oklahoma and Texas shall each allow a quantity of water equal to forty percent (40%) of the total weekly runoff originating in subbasin 5 within their respective states to flow into the Red River; provided however, this provision shall be invoked only at the request of Arkansas, only after Arkansas has ceased all diversions from the Red River itself in Arkansas above Index, and only if the provisions of subsections 5.05 (b) (2) and (3) have not caused a limitation of diversions in subbasin 5.

(d) No state guarantees to maintain a minimum low flow to a downstream state.

SECTION 5.06 Special Provisions.

(a) Reservoirs within the limits of Reach II, subbasin 5, with a conservation storage capacity of 1,000 acre-feet or less in existence or authorized on the date of the Compact pursuant to the rights and privileges granted by a Signatory State authorizing such reservoirs, shall be exempt from the provisions of Section 5.05; provided, if any right to store water in, or use water from, an existing exempt reservoir expires or is cancelled after the effective date of the Compact the exemption for such rights provided by this section shall be lost.

(b) A Signatory State may authorize a change in the purpose or place of use of water from a reservoir exempted by subparagraph (a) of this section without losing that exemption, if the quantity of authorized use and storage is not increased.

(c) Additionally, exemptions from the provisions of Section 5.05 shall not apply to direct diversions from Red River to off-channel reservoirs or lands.

ARTICLE VI

APPORTIONMENT OF WATER - REACH III

ARKANSAS, LOUISIANA, AND TEXAS

Subdivision of Reach III and allocation of water therein. Reach III of the Red River is divided into topographic subbasins, and the water therein allocated, as follows:

SECTION 6.01 Subbasin 1 - Interstate streams - Arkansas and Texas.

(a) This subbasin includes the Texas portion of those streams crossing the Arkansas-Texas state boundary one or more times and flowing through Arkansas into Cypress Creek-Twelve Mile Bayou watershed in Louisiana.

(b) Texas is apportioned sixty percent (60%) of the runoff of this subbasin and shall have unrestricted use thereof; Arkansas is entitled to forty percent (40%) of the runoff of this subbasin.

SECTION 6.02 Subbasin 2 - Interstate streams - Arkansas and Louisiana.

(a) This subbasin includes the Arkansas portion of those streams flowing from subbasin 1 into Arkansas, as well as other streams in Arkansas which cross the Arkansas-Louisiana state boundary one or more times and flow into Cypress Creek-Twelve Mile Bayou watershed in Louisiana.

(b) Arkansas is apportioned sixty percent (60%) of the runoff of this subbasin and shall have unrestricted use thereof; Louisiana is entitled to forty percent (40%) of the runoff of this subbasin.

SECTION 6.03 Subbasin 3 - Interstate streams - Texas and Louisiana.

(a) This subbasin includes the Texas portion of all tributaries crossing the Texas-Louisiana state boundary one or more times and flowing into Caddo Lake, Cypress Creek-Twelve Mile Bayou or Cross Lake, as well as the Louisiana portion of such tributaries.

(b) Texas and Louisiana within their respective boundaries shall each have the unrestricted use of the water of this subbasin subject to the following allocation:

(1) Texas shall have the unrestricted right to all water above Marshall, Lake O' the Pines, and Black Cypress damsites; however, Texas shall not cause runoff to be depleted to a quantity less than that which would have occurred with the full operation of Franklin County, Titus County, Ellison Creek, Johnson Creek, Lake O' the Pines, Marshall, and Black

Cypress Reservoirs constructed, and those other impoundments and diversions existing on the effective date of this Compact. Any depletions of runoff in excess of the depletions described above shall be charged against Texas' apportionment of the water in Caddo Reservoir.

(2) Texas and Louisiana shall each have the unrestricted right to use fifty percent (50%) of the conservation storage capacity in the present Caddo Lake for the impoundment of water for state use, subject to the provision that supplies for existing uses of water from Caddo Lake, on date of Compact, are not reduced.

(3) Texas and Louisiana shall each have the unrestricted right to fifty percent (50%) of the conservation storage capacity of any future enlargement of Caddo Lake, provided, the two states may negotiate for the release of each state's share of the storage space on terms mutually agreed upon by the two states after the effective date of this Compact.

(4) Inflow to Caddo Lake from its drainage area downstream from Marshall, Lake O' the Pines, and Black Cypress damsites and downstream from other last downstream dams in existence on the date of the signing of the Compact document by the Compact Commissioners, will be allowed to continue flowing into Caddo Lake except that any man-made depletions to this inflow by Texas will be subtracted from the Texas share of the water in Caddo Lake.

(c) In regard to the water of interstate streams which do not contribute to the inflow to Cross Lake or Caddo Lake, Texas shall have the unrestricted right to divert and use this water on the basis of a division of runoff above the state boundary of sixty percent (60%) to Texas and forty percent (40%) to Louisiana.

(d) Texas and Louisiana will not construct improvements on the Cross Lake Watershed in either state that will affect the yield of Cross Lake; provided, however, this subsection shall be subject to the provisions of Section 2.08.

SECTION 6.04 Subbasin 4 - Intrastate streams - Louisiana.

(a) This subbasin includes that area of Louisiana in Reach III not included within any other subbasin.

(b) Louisiana shall have free and unrestricted use of the water of this subbasin.

ARTICLE VII

APPORTIONMENT OF WATER - REACH IV ARKANSAS AND LOUISIANA

Subdivision of Reach IV and allocation of water therein. Reach IV of the Red River is divided into topographic subbasins, and the water therein allocated as follows:

SECTION 7.01 Subbasin 1 - Intrastate streams - Arkansas.

(a) This subbasin includes those streams and their tributaries above last downstream major damsites originating in Arkansas and crossing the Arkansas-Louisiana state boundary before flowing into the Red River in Louisiana. Those major last downstream damsites are as follows: Location Stream Site Ac-ft Latitude Longitude Lake Ouachita River Catherine 19,000 34 26.6'N 93 01.6'W Caddo River DeGray Lake 1,377,000 34 13.2'N 93 06.6'W Little Missouri River Lake Greeson 600,000 34 08.9'N 93 42.9'W Alum Fork, Saline River Lake Winona 63,264 32 47.8'N 92 51.0'W

(b) Arkansas is apportioned the waters of this subbasin and shall have unrestricted use thereof.

SECTION 7.02 Subbasin 2 - Interstate Streams - Arkansas and Louisiana.

(a) This subbasin shall consist of Reach IV less subbasin 1 as defined in Section 7.01 (a) above.

(b) The State of Arkansas shall have free and unrestricted use of the water of this reach subject to the limitation that Arkansas shall allow a quantity of water equal to forty percent (40%) of the weekly runoff originating below or flowing from the last downstream major damsite to flow into Louisiana. Where there are no designated last downstream damsites, Arkansas shall allow a quantity of water equal to forty percent (40%) of the total weekly runoff originating above the state boundary to flow into Louisiana. Use of water in this subbasin is subject to low flow provisions of subparagraph 7.03 (b).

SECTION 7.03 Special Provisions.

(a) Arkansas may use the beds and banks of segments of Reach IV for the purpose of conveying its share of water to designated downstream diversions.

(b) The State of Arkansas does not guarantee to maintain a minimum low flow for Louisiana in Reach IV. However, on the following streams when the use of water in Arkansas reduces the flow at the Arkansas-Louisiana state boundary to the following amounts:

(1) Ouachita - 780 cfs

(2) Bayou Bartholomew - 80 cfs

(3) Boeuf River - 40 cfs

(4) Bayou Macon - 40 cfs the State of Arkansas pledges to take affirmative steps to regulate the diversions of runoff originating or flowing into Reach IV in such a manner as to permit an equitable apportionment of the runoff as set out herein to flow into the State of Louisiana. In its control and regulation of the water of Reach IV any adjudication or order rendered by the State of Arkansas or any of its instrumentalities or agencies affecting the terms of this Compact shall not be effective against the State of Louisiana nor any of its citizens or inhabitants until approved by the Commission.

ARTICLE VIII

APPORTIONMENT OF WATER - REACH V

SECTION 8.01 Reach V of the Red River consists of the main stem Red River and all of its tributaries lying wholly within the State of Louisiana. The State of Louisiana shall have free and unrestricted use of the water of this subbasin.

ARTICLE IX

ADMINISTRATION OF THE COMPACT

SECTION 9.01 There is hereby created an interstate administrative agency to be known as the "Red River Compact Commission", hereinafter called the "Commission". The Commission shall be composed of two representatives from each Signatory State who shall be designated or appointed in accordance with the laws of each state, and one Commissioner representing the United States, who shall be appointed by the President. The Federal Commissioner shall be the Chairman of the Commission but shall not have the right to vote. The failure of the President to appoint a Federal Commissioner will not prevent the operation or effect of this Compact, and the eight representatives from the Signatory States will elect a Chairman for the Commission.

SECTION 9.02 The Commission shall meet and organize within sixty (60) days after the effective date of this Compact. Thereafter, meetings shall be held at such times and places as the Commission shall decide.

SECTION 9.03 Each of the two Commissioners from each state shall have one vote; provided, however, that if only one representative from a state attends he is authorized to vote on behalf of the absent Commissioner from that state. Representatives from three states shall constitute a quorum. Any action concerned with administration of this Compact or any action requiring compliance with specific terms of this Compact shall require six concurring votes. If a proposed action of the Commission affects existing water rights in a state, and that action is not expressly provided for in this Compact, eight concurring votes shall be required.

SECTION 9.04 (a) The salaries and personal expenses of each state's representative shall be paid by the government that it represents, and the salaries and personal expenses of the Federal Commissioner will be paid for by the United States.

(b) The Commission's expenses for any additional stream flow gauging stations shall be equitably apportioned among the states involved in the reach in which the stream flow gauging stations are located.

(c) All other expenses incurred by the Commission shall be borne equally by the Signatory States and shall be paid by the Commission out of the "Red River Compact Commission Fund". Such fund shall be initiated and maintained by equal payments of each state into the fund. Disbursement shall be made from the fund in such manner as may be authorized by the Commission. Such fund shall not be subject to audit and accounting procedures of the state; however, all receipts and disbursements of the fund by the Commission shall be audited by a qualified independent public accountant at regular intervals, and the report of such audits shall be included in and become a part of the annual report of the Commission. Each state shall have the right to make its own audit of the accounts of the Commission at any reasonable time.

ARTICLE X

POWERS AND DUTIES OF THE COMMISSION

SECTION 10.01 The Commission shall have the power to:

(a) Adopt rules and regulations governing its operation and enforcement of the terms of the Compact;

(b) Establish and maintain an office for the conduct of its affairs and, if desirable, from time to time, change its location;

(c) Employ or contract with such engineering, legal, clerical and other personnel as it may determine necessary for the exercise of its functions under this Compact without regard to the Civil Service Laws of any Signatory State; provided that such employees shall be paid by and be responsible to the Commission and shall not be considered employees of any Signatory State;

(d) Acquire, use and dispose of such real and personal property as it may consider necessary;

(e) Enter into contracts with appropriate state or Federal agencies for the collection, correlation and presentation of factual data, for the maintenance of records and for the preparation of reports;

(f) Secure from the head of any department or agency of the Federal or state government such information as it may need or deem to be useful for carrying out its functions and as may be available to or procurable by the department or agency to which the request is addressed; provided such information is not privileged and the department or agency is not precluded by law from releasing same.

(g) Make findings, recommendations or reports in connection with carrying out the purposes of this Compact, including, but not limited to, a finding that a Signatory State is or is not in violation of any of the provisions of this Compact. The Commission is authorized to make such investigations and studies, and to hold such hearings as it may deem necessary for said purposes. It is authorized to make and file official certified copies of any of its findings, recommendations or reports with such officers or agencies of any Signatory State, or the United States, as may have any interest in or jurisdiction over the subject matter. The making of findings, recommendations, or reports by the Commission shall not be a condition precedent to the instituting or maintaining of any action or proceeding of any kind by a Signatory State in any court or tribunal, or before any agency or officer, for the protection of any right under this Compact or for the enforcement of any of its provisions; and

(h) Print or otherwise reproduce and distribute its proceedings and reports.

SECTION 10.02 The Commission shall:

(a) Cause to be established, maintained, and operated such stream, reservoir and other gauging stations as are necessary for the proper administration of the Compact;

(b) Cause to be collected, analyzed and reported such information on stream flows, water quality, water storage and such other data as are necessary for the proper administration of the Compact;

(c) Perform all other functions required of it by the Compact and do all things necessary, proper and convenient in the performance of its duties thereunder;

(d) Prepare and submit to the Governor of each of the Signatory States a budget covering the anticipated expenses of the Commission for the following fiscal biennium;

(e) Prepare and submit an annual report to the Governor of each Signatory State and to the President of the United States covering the activities of the Commission for the preceding fiscal year, together with an accounting of all funds received and expended by it in the conduct of its work;

(f) Make available to the Governor or to any official agency of a Signatory State or to any authorized representative of the United States, upon request, any information within its possession;

(g) Not incur any obligation in excess of the unencumbered balance of its funds, nor pledge the credit of any of the Signatory States; and

(h) Make available to a Signatory State or the United States in any action arising under this Compact, without subpoena, the testimony of any officer or employee of the Commission having knowledge of any relevant facts.

ARTICLE XI

POLLUTION

SECTION 11.01 The Signatory States recognize that the increase in population and the growth of industrial, agricultural, mining and other activities combined with natural pollution sources may lead to a diminution of the quality of water in the Red River Basin which may render the water harmful or injurious to the health and welfare of the people and impair the usefulness or public enjoyment of the water for beneficial purposes, thereby resulting in adverse social, economic, and environmental impacts.

SECTION 11.02 Although affirming the primary duty and responsibility of each Signatory State to take appropriate action under its own laws to prevent, diminish, and regulate all pollution sources within its boundaries which adversely affect the water of the Red River Basin, the states recognize that the control and abatement of the naturally-occurring salinity sources as well as, under certain circumstances, the maintenance and enhancement of the quality of water in the Red River Basin may require the cooperative action of all states.

SECTION 11.03 The Signatory States agree to cooperate with agencies of the United States to devise and effectuate means of alleviating the natural deterioration of the water of the Red River Basin.

SECTION 11.04 The Commission shall have the power to cooperate with the United States, the Signatory States and other entities in programs for abating and controlling pollution and natural deterioration of the water of the Red River Basin, and to recommend reasonable water quality objectives to the states.

SECTION 11.05 Each Signatory State agrees to maintain current records of waste discharges into the Red River Basin and the type and quality of such discharges, which records shall be furnished to the Commission upon request.

SECTION 11.06 Upon receipt of a complaint from the Governor of a Signatory State that the interstate water of the Red River Basin in which it has an interest are being materially and adversely affected by pollution and that the state in which the pollution originates has failed after reasonable notice to take appropriate abatement measures, the Commission shall make such findings as are appropriate and thereafter provide such findings to the Governor of the state in which such pollution originates and request appropriate corrective action. The Commission, however, shall not take any action with respect to pollution which adversely affects only the state in which such pollution originates.

SECTION 11.07 In addition to its other powers set forth under this Article, the Commission shall have the authority, upon receipt of six concurring votes, to utilize applicable Federal statutes to institute legal action in its own name against the person or entity responsible for interstate pollution problems; provided, however, sixty (60) days before initiating legal action the Commission shall notify the Governor of the state in which the pollution source is located to allow that state an opportunity to initiate action in its own name.

SECTION 11.08 Without prejudice to any other remedy available to the Commission, or any Signatory State, any state which is materially and adversely affected by the pollution of the water of the Red River Basin by pollution originating in another Signatory State may institute a suit against any individual, corporation, partnership, or association, or against any Signatory State or political or governmental subdivision thereof, or against any officer, agency, department, bureau, district or instrumentality of or in any Signatory State contributing to such pollution in accordance with applicable Federal statutes. Nothing herein shall be construed as depriving any person of any rights of action relating to pollution which such person would have if this Compact had not been made.

ARTICLE XII

TERMINATION AND AMENDMENT OF COMPACT

SECTION 12.01 This Compact may be terminated at any time by appropriate action of the Legislatures of all of the four Signatory States. In the event of such termination, all rights established under it shall continue unimpaired.

SECTION 12.02 This Compact may be amended at any time by appropriate action of the Legislatures of all Signatory States that are affected by such amendment. The consent of the United States Congress must be obtained before any such amendment is effective.

ARTICLE XIII

RATIFICATION AND EFFECTIVE DATE OF COMPACT

SECTION 13.01 Notice of ratification of this Compact by the Legislature of each Signatory State shall be given by the Governor thereof to the Governors of each of the other Signatory States and to the President of the United States. The President is hereby requested to give notice to the Governors of each of the Signatory States of the consent to this Compact by the Congress of the United States.

SECTION 13.02 This Compact shall become effective, binding and obligatory when, and only when:

(a) It has been duly ratified by each of the Signatory States; and

(b) It has been consented to by an Act of the Congress of the United States, which Act provides that: Any other statute of the United States to the contrary notwithstanding, in any case or controversy:

i. which involves the construction or application of this Compact;

ii. in which one or more of the Signatory States to this Compact is a plaintiff or plaintiffs; and

iii. which is within the judicial power of the United States as set forth in the Constitution of the United States; and without any requirement, limitation or regard as to the sum or value of the matter in controversy, or of the place of residence or citizenship of, or of the nature, character or legal status of, any of the other proper parties plaintiff or defendant in such case of controversy:

The consent of Congress is given to name and join the United States as a party defendant or otherwise in any such case or controversy in the Supreme Court of the United States if the United States is an indispensable party thereto.

SECTION 13.03 The United States District Courts shall have original jurisdiction (concurrent with that of the Supreme Court of the United States, and concurrent with that of any other Federal or state court, in matters in which the Supreme Court, or other court has original jurisdiction) of any case or controversy involving the application or construction of this Compact; that said jurisdiction shall include, but not be limited to, suits between Signatory States; and that the venue of such case or controversy may be brought in any judicial district in which the acts complained of (or any portion thereof) occur.

RULES FOR THE INTERNAL ORGANIZATION of the RED RIVER COMPACT COMMISSION

(As Amended April 25, 1984, April 30, 1991, May 4, 1993, and March 24, 1994)

ARTICLE I
THE COMMISSION

1.1 The Commission is the "Red River Compact Commission," which is referred to in Article X of the Red River Compact.

1.2 The credentials of each Commissioner shall be filed with both the Chairman and the Secretary of the Commission. When the credentials of a new Commissioner are received, the Secretary shall promptly notify each of the other Commissioners of the name and address of the new Commissioner.

1.3 Each Commissioner shall advise in writing the office of the Commission as to his address at which all official notices and other communications of the Commission shall be sent to him. Any change of address shall be promptly communicated in writing to the office of the Commission.

1.4 Persons designated to substitute for duly appointed Commissioners at meetings of the Compact Commission shall present the Commission with credentials of authority by letter, or other form of appointment acceptable to the Commission, which states the scope or limitations of the appointment, together with a copy of the state or federal law or Attorney General's opinion which authorizes the appointment.

ARTICLE II
OFFICERS

2.1 The officers of the Commission shall be a Chairman, a Vice-Chairman, Secretary and a Treasurer.

2.2 The Commissioner representing the United States shall be the Chairman of the Commission. The Chairman or the designated representative of the Chairman, shall preside at meetings of the Commission. His duties shall be those usually imposed upon such officers and as may be assigned by these rules or by the Commission from time to time.

2.3 The Vice-Chairman shall be elected at the annual meeting from the Commissioners of the host state for the coming year as reflected by the minutes, and shall hold office for a term of one year, beginning on July 1 following the election, or until a successor is elected. The Vice-Chairman shall serve as Chairman in the event the President of the United States fails to appoint a Federal Commissioner, or in the absence of the Federal Commissioner or the designated representative of the Federal Commissioner.

2.4 The Secretary shall be selected at the annual meeting by the Commission from the state designated to host the next annual meeting as reflected in the minutes. The Secretary shall serve for the term of one year, beginning on July 1 following the selection, and perform the duties as the Commission shall direct. In case of a vacancy in the office of the Secretary, the Commission shall select a new Secretary as expeditiously as possible.

2.5 The Treasurer shall be selected by the Commission for a term of one year, beginning on July 1 following the selection. The Treasurer shall furnish a fidelity bond, the cost of which shall be paid by the Commission. The Treasurer shall receive, hold and disburse all funds which come into the his hands of the Treasurer.

2.6 The Secretary and Treasurer may be members of the Commission, and their offices may be combined by the Commission. Any one person may hold both offices.

2.7 Whenever there is a permanent change in the Commander of the Lower Mississippi Valley Division, Department of the Army Corps of Engineers, or its counterpart in any future reorganization of the Corps, the Vice-Chairman shall immediately request the President to appoint the new Commander as the U.S. Commissioner to the Compact Commission.

ARTICLE III
PRINCIPAL OFFICE

3.1 The principal office of the Commission shall be either the office of the Chairman or the Secretary, as the Commission shall direct.

3.2 Official books and records of the Commission shall be kept at the principal office.

ARTICLE IV
MEETINGS

4.1 The annual meeting of the Commission shall be held on the last Tuesday of April of each year.

4.2 Special meetings of the Commission may be called by the Chairman at any time. Upon the written request of each of the Commissioners of two states setting forth the matters to be considered at such meeting, the chairman shall call a special meeting.

4.3 Reasonable notice of all special meetings of the Commission shall be sent by the Chairman, to all members of the Commission by ordinary mail at least ten days in advance of each meeting and notice shall state the purpose thereof.

4.4 Emergency meetings of the Commission may be called by the Chairman at any time upon the concurrence of at least two states and such meetings may be conducted by long-distance telephone conference call or other electronic means. Any such long-distance telephone conference call or other electronic communication shall be recorded and made available for public inspection in accordance with the laws of the respective signatory states. Each of the signatory states shall be represented by at least one Commissioner during such an emergency conference and concur in the action.
An emergency is defined as a situation involving an eminent threat of injury to persons or damage to property or eminent financial loss when the time requirements for public notice and travel to a special meeting would make such procedure and travel impractical and increase the likelihood of injury or damage or eminent financial loss.

4.5 Notice to the public shall be given of all Commission meetings. Except as otherwise provided, the Chairman shall furnish notice of all meetings to the Commissioners of each signatory state, whose responsibility it shall be to give said notice to the public in accordance with the laws of their respective states.

In the event of an emergency meeting held bytelephone or other electronic communication, no advance notice is required. All meetings of the Commission shall be held at the principal office unless another place shall be agreed upon by the Commissioners.

4.6 Minutes of the Commission shall be preserved in suitable manner. Minutes, until approved, shall not be official and shall be furnished only to members of the Commission, its employees and committees.

4.7 Commissioners from three of the signatory states shall constitute a quorum. However, if an emergency meeting is conducted as provided for in rule 4.4, or if a proposed action of the Commission affects existing water rights in a state, and that actions is not expressly provided for in the Compact, eight concurring votes shall be required. Any other actions concerned with the administration of the Compact or requiring compliance with specific terms of the Compact shall require six concurring votes.

4.8 At each regular or annual meeting of the Commission, the order of business, unless agreed otherwise, shall be as follows:

Call to order;
Approval of Agenda;
Approval of the minutes;
Report of Chairman;
Report of Secretary;
Report of the Treasurer;
Report of the Commissioners;
Report of Committees;
Unfinished business;
New business;
Adjournment;

4.9 All meetings of the Commission, except executive sessions and except as otherwise provided, shall be open to the public. Executive sessions shall be open only to members of the Commission and such advisers as may be designated by each member and employees as permitted by the Commission; provided, however, that the Commission may call witnesses before it when in such sessions.
The Commission may hold executive sessions only for the purposes of discussing;

(1) The employment, appointment, promotion, demotion, disciplining or resignation of a Commission employee or employees, members, advisers, or committee members.

(2) Pending or contemplated litigation, settlement offers, and matters where the duty of the Commission's counsel to his client, pursuant to the Code of Professional Responsibility, clearly conflicts with the public's right to know.

(3) The report, development, or course of action regarding security, personnel, plans, or devices.

No executive session may be held except on a vote, taken in public by a majority of a quorum of the members present. At least one Commissioner from each of the signatory states must agree to the holding of an executive session.

Any motion or other decision considered or arrived at in executive session shall be voidable unless, following the executive session, the Commission reconvenes in public session and presents and votes on such motion or other decision.

4.10 In the absence of a Chairman and Vice-Chairman, all of the Commissioners from any two (2) states may call an emergency or a special meeting of the Compact Commission.

ARTICLE V
COMMITTEES

5.1 There may be the following standing committees:

(a) Budget Committee;
(b) Engineering Committee;
(c) Environmental and Natural Resources Committee;
(d) Legal Committee.

5.2 The committees shall have the following duties:

(1) The Budget Committee shall prepare the annual budget and shall advise the Commission on all fiscal matters that may be referred to it.

(2) The Engineering Committee shall advise the Commission all engineering matters that may be referred to it.

(3) The Environmental and Natural Resources Committee shall advise the Commission on all environmental and natural resource matters that may be referred to it.

(4) The Legal Committee shall advise the Commission on all legal matters that may be referred to it.

5.3 Commissioners may be members of committees. The number of members of each committee shall be determined from time to time by the Commission. The Commissioners of each state shall designate the member or members on each committee representing the State, and each State shall have one vote.

5.4 The Chairman may appoint a non-voting member of each committee.

5.5 The Chairman of each committee shall be designated by the Commission from members of the committee; however, in the event a Chairman is unable to perform his duties, the committee shall appoint an Interim Chairman.

5.6 The Commission may from time to time create special committees and assign it tasks. The Commission may also determine the composition of the special committees.

5.7 Formal committee reports shall be made in writing and filed with the Commission.

ARTICLE VI
RULES AND REGULATIONS

6.1 So far as is consistent with the Compact, the Commission may adopt rules and regulations and amend them from time to time. Rules and regulations to be adopted shall be presented by resolution and approved by a quorum as set out in Rule 4.7. Copies of proposed resolutions for rule adoption shall be presented in writing to each of the Commissioners at least thirty days before the meeting upon which they are to be voted. However, at its meeting, by unanimous vote, the Commission may waive this notice requirement.

6.2 Rules and regulations of the Commission may be compiled and copies may be prepared for distribution to the public under such terms and conditions as the Commission may prescribe.

ARTICLE VII
FISCAL

7.1 All funds of the Commission shall be deposited in a depository or depositories designated by the Commission under the name of the "Red River Compact Commission Fund".

7.2 Disbursement of funds in the hands of the Treasurer, for items included in the approved budget, shall be made by check signed by him and the Vice-Chairman or by such person as may be designated by the Commission. Disbursement of funds for non-budgeted items shall be made by check signed by the Treasurer and Vice-Chairman upon voucher approved by at least six of the Commissioners, four of whom shall be from different signatory states.

7.3 At the annual meeting of each year, the Commission shall adopt a budget covering an estimate of its expenses for the following two fiscal years.

7.4 The payment of expenses of the Commission and of its employees shall not be subject to the audit and accounting procedures of the states.

7.5 All receipts and disbursements of the Commission shall be audited periodically as determined by the Commission by a qualified independent public accountant to be selected by the Commission and the report of the audit shall be included in and become a part of the annual report of the Commission.

7.6 The fiscal year of Commission shall begin July 1, of each year and end June 30 of the next succeeding year.

ARTICLE VIII
ANNUAL REPORT

8.1 The Commission shall make an annual report and transmit it on or before the last day of May to the governors of the signatory states to the Red River Compact and to the President of the United States.

8.2 The annual report shall contain:

(1) Minutes of all regular, special or emergency meetings held during the year;

(2) All findings of facts made by the Commission during the preceding year;

(3) Recommendations for actions by the signatory states;

(4) Statements as to any cooperative studies made during the preceding year;

(5) All data which the Commission deems pertinent;

(6) The budget for current and future years;

(7) The most recent audit report or current financial statement of the Red River Compact Fund;

(8) Name, address and phone number of each Commissioner and each member of all standing committees;

(9) Such other pertinent matters as the Commission may require.

RED RIVER COMPACT RULES AND REGULATIONS
To Compute and Enforce Compact Compliance
REACH I, SUBBASIN 1

(Adopted 4/30/87)

1. **General.** These rules and regulations to be used to compute and enforce Compact compliance within Subbasin I of Reach 1, Red River Compact, are adopted subject to the following conditions and assumptions.
   a. It is fully understood that these rules and regulations should be modified as new or improved gaging stations are constructed, whenever experience or detailed studies demonstrate the need for modification, and if the Commission should modify its interpretation of Compact provisions relating to this Subbasin.

2. **Management of Compact Compliance Computations.**
   a. **Management Using State Centers:**
      (1) Texas and Oklahoma representatives will establish State Computation and Control Centers.
         (a) State representatives will gather data, exchange data and meet prior to the annual Commission meeting to check on computation results.
         (b) The EAC will determine compliance with Compact.
   b. **Management Period for Compact Compliance Computations:**
      (1) Computation will be on the calendar year basis.
      (2) Water data for a calendar year should be exchanged prior to March 15 of the following year.
      (3) Compact Compliance Computation for a calendar year should be completed by April 15 of the following year.

3. **Enforcement of Compact Compliance Requirements.** Texas will be responsible for insuring that the sum of Texas uses does not exceed the total Texas water use authorized by the Red River Compact, and Texas will be responsible for establishing clear legal authority within Texas for enforcing the restrictions imposed by the Red River Compact.

4. **Data Reporting Procedures.**
   a. **Streamflow Gaging Station Records:** The EAC will make arrangements with federal and State agencies, as required, to collect calendar year data as needed, and forward to the Texas and Oklahoma Computation Control Centers.
   b. **Archived Records:** Records will be archived by the Commission Chairman.

5. **General Compliance Requirements of Section 4.01 Red River Compact.**
   a. **SECTION 4.01. Subbasin 1 - Interstate Streams - Texas:**
      (1) **The Compact prescribes:**
         "(a) This includes the Texas portion of Buck Creek, Sand (Lebos) Creek, Salt Fork Red River, Elm Creek, North Fork Red River, Sweetwater Creek and Washita River, together with all their tributaries in Texas which lie west of the 100th Meridian."
         "(b) The annual flow within this subbasin is hereby apportioned sixty (60) percent to Texas and forty (40) percent to Oklahoma."

SECTION 4.01 is modified in part by SECTION 4.05. Special Provisions, as follows:

"(b) Texas shall not accept for filing, or grant a permit, for the construction of a dam to impound water solely for irrigation, flood control, soil conservation, mining and recovery of minerals, hydroelectric power, navigation, recreation and pleasure, or for any other purpose other than for domestic, municipal, and industrial water supply, on the mainstem of the North Fork Red River or any of its tributaries within Texas about Lugert-Altus Reservoir until the date that imported water, sufficient to meet the municipal and irrigation needs of Western Oklahoma is provided, or until January 1, 2000, which ever occurs first."

(2) Pertinent extracts from the Supplemental Interpretive Comments of Legal Advisory Committee, as approved by the Red River Compact Commission on the 19th day of September 1978, are as follows:

Pages 9 and 10 " * * * * * The flow of interstate tributaries is generally divided 60 percent to the upstream State and 40 percent to the downstream State. Because flows in Reach I are primarily from flood flows, an annual basis of accounting was adopted"

* * * * *

"Section 4.05(b) reflects the compromise of a long-standing dispute between Oklahoma and Texas over the water of the North Fork of the Red River and Sweetwater Creek. * * * * *"

"Under the Compromise Texas will limit development on North Fork and Sweetwater Creek to projects justified on the basis of municipal, industrial, and domestic needs until the year 2000. However, if sufficient imported water becomes available in Western Oklahoma before 2000, Texas will be free to pursue full development of its 60% of these interstate tributaries. * * * *"

(2) Until January 1, 2000 (assuming that imported water is not provided prior to that date in sufficient amounts to meet municipal and irrigation needs of Western Oklahoma) special restrictions apply to Texas water use in its North Fork Red River watershed upstream from the Lugert-Altus Reservoir. Therefore, some of the Compact compliance rules for the North Fork Red River watershed upstream from the Lugert-Altus Reservoir (para 5.f.(3) & (4) and g.(3) & (4) below) expire on January 1, 2000, if still in effect at that time.

b. **Buck Creek Watershed in Texas:** Buck Creek watershed covers about 300 square miles in Texas. There are no existing gaging stations on Buck Creek in Texas or in Oklahoma. Since neither the Texas nor Oklahoma use of flow from Buck Creek is significant at this time, it is not required to make an annual accounting of the flow in Buck Creek. It also appears that establishing gaging stations and channel loss values so that future annual accountings could be made is not economically justified at this time. Annual accounting procedures for this watershed should be developed to provide a 60:40 apportionment whenever requested by either Oklahoma or Texas.

c. **Sand (Lebos) Creek Watershed in Texas:** Sand Creek watershed covers about 65 square miles in Texas. There are no gaging stations on Sand Creek in Texas or in Oklahoma. Since neither Texas nor Oklahoma makes significant use of flow from Sand Creek, it is not necessary to make an annual accounting of the flow in Sand Creek, and it does not seem to be economically justified **at this time** to establish gaging stations and determine channel loss values so that future annual accountings could be made. Annual accounting procedures for this watershed should be developed to provide a 60:40 apportionment whenever requested by either Oklahoma or Texas.

d. **Salt Fork Red River Watershed in Texas:** Salt Fork Red River watershed in Texas covers about 1,380 square miles, of which 209 are non-contributing.

The USGS streamflow gage number 07300000, Salt Fork Red River near Wellington, Texas, is about 16 miles upstream from the Oklahoma-Texas State line and measures flow from a 1,222 sq. mi. drainage area, of which 209 is probably non-contributing. The average annual discharge (1953-1966) was 52,600 AF/yr, and the average annual discharge since Greenbelt Reservoir was completed (1967-1977) has been 33,250 AF/yr.

The USGS streamflow gage 07300500, Salt Fork Red River at Mangum, Oklahoma, is about 29 miles downstream from the Oklahoma-Texas State line and measures flow from a 1,566 sq. mile drainage area, of which 209 is probably non-contributing. The average annual discharge (1937-1977) has been 62,450 AF/yr.

(1) The actual annual delivery at the Oklahoma State line is computed as follows:
   - (a) The annual flow at the Wellington gage,
   - (b) Minus channel losses to Wellington gage flows between gage and State line (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment),
   - (c) Plus Texas' flow between Wellington gage and the State line. (This flow will be computed based on intervening drainage area between Wellington and Mangum gages adjusted for both Texas and Oklahoma man-made depletions.), and
   - (d) Minus Texas' man-made depletions downstream from the Wellington gage.

(2) The scheduled annual delivery at the Oklahoma State line is 40 percent of the natural flow at State line without diversions or impoundments, and would be computed as 40 percent of the following:
   - (a) The actual annual delivery (para 5.d.(1) above),
   - (b) Plus all man-made depletions in Texas, and
   - (c) Minus the increased channel losses in Texas which would have incurred had Texas depletions not occurred (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment).

(3) Compact compliance is achieved as long as actual delivery exceeds scheduled delivery.

e. **Elm Creek Watershed in Texas:** Elm Creek watershed covers about 360 square miles in Texas which includes the North Elm Creek tributary. There is no streamflow gage on Elm Creek in Texas. The USGS gage number 07303400, Elm Fork of North Fork Red River near Carl, Oklahoma, is about 6

miles downstream from the Oklahoma-Texas State line, and was used to measure flow from a 416 square mile drainage area but discharge measurements at this site were discontinued in 1980. The average annual discharge (20 years) was 30,280 AF/yr. No Compact compliance accounts can be made until the Gage near Carl has been reestablished.

(1) The actual annual delivery at State line is computed as follows:
   (a) Flow at the State line. (This flow will be computed based on the drainage area and on the flow measured at Carl gage, adjusted for both Texas and Oklahoma depletions.), and
   (b) Minus Texas' man-made depletions.

(2) The scheduled annual delivery at State line is 40 percent of the natural flow at State line without diversions or impoundments and would be computed as 40 percent of the following:
   (a) The actual annual delivery (para 5.e.(1) above),
   (b) Plus man-made depletions in Texas, and
   (c) Minus the increased channel losses in Texas which would have been incurred if Texas had not depleted the flow (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment).

(3) Compact compliance is achieved as long as the actual delivery exceeds the scheduled delivery.

f. **Washita River Watershed in Texas:** There is no streamflow gage on the Washita River in Texas. The USGS streamflow gage number 07316500, Washita River near Cheyenne, Oklahoma, is over 21 miles downstream from the Oklahoma-Texas State line, and measures flow from a 794 square mile drainage area, of which about 441 square miles are in Texas. The average annual discharge at the Cheyenne gage (44 years) has been 20,720 AF/yr.

(1) The actual annual delivery at Oklahoma State line is computed as follows:
   (a) The annual flow at the Cheyenne gage,
   (b) Plus channel losses to the State line flow between the State line and the gage (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment),
   (c) Minus Oklahoma's flow between the State line and Cheyenne gage. (This flow will be computed based on the drainage area upstream from the Cheyenne gage, adjusted for both Texas and Oklahoma man-made depletions.), and
   (d) Minus Texas' man-made depletions.

(2) The annual scheduled delivery at State line is 40 percent of the natural flow at State line without diversions or impoundments, and would be computed as 40 percent of the following:
   (a) The actual annual delivery at State line (para 5.h.(1) above),
   (b) Plus man-made depletions in Texas, and
   (c) Minus the increased channel losses which would have occurred if Texas had not made any diversions (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment).

(3) Compact compliance is achieved as long as the actual delivery exceeds the scheduled delivery.

RESOLUTION TO ADOPT
RULES AND REGULATIONS
TO COMPUTE AND ENFORCE COMPACT COMPLIANCE
REACH I, SUBBASIN 1-SWEETWATER CREEK AND NORTH FORK RED RIVER

THE COMMISSION FINDS:

1. that no projects or diversions have occurred in Texas from Sweetwater Creek or the North Fork Red River above Lugert-Altus Reservoir as of this date which violate Article IV, §§ 4.01(b), 4.05(b) of the Red River Compact;

2. that in compliance with the Compact Texas is entitled to 60% of the state line natural flow on an annual basis of Sweetwater Creek and Oklahoma is entitled to 40% of the state line natural flow on an annual basis of Sweetwater Creek; and

3. that in compliance with the Compact Texas is entitled to 60% of the state line natural flow on an annual basis of the North Fork of the Red River and Oklahoma is entitled to 40% of the state line natural flow on an annual basis of the North Fork of the Red River.

THE COMMISSION HEREBY ADOPTS the rules set forth below to compute and apportion the waters of Sweetwater Creek and the North Fork of the Red River between Texas and Oklahoma in accordance with Article IV, §4.01(b) of the Red River Compact.

RED RIVER COMPACT RULES AND REGULATIONS
To Compute and Enforce Compact Compliance
REACH I – SUBBASIN 1-SWEETWATER CREEK AND NORTH FORK RED RIVER

1. General.

These rules and regulations to be used to compute and enforce Compact compliance for Sweetwater Creek and North Fork Red River in Reach I, Subbasin 1 of the Compact are adopted subject to the following conditions and assumptions:

A. It is fully understood that these rules and regulations should be modified as new or improved gaging stations are constructed, whenever experience or detailed studies demonstrate the need for modification, or if the Commission should modify its interpretation of the Compact provisions relating to this Subbasin.

B. Texas is apportioned 60% of the annual flow of Sweetwater Creek and Oklahoma is apportioned 40% of the annual flow of Sweetwater Creek. Texas is apportioned 60% of the annual flow of the North Fork of the Red River and Oklahoma is apportioned 40% of the annual flow of the North Fork of the Red River.

2. **Management of Compact Compliance Computations.**

A. **Management Using State Centers:**

(1) Texas and Oklahoma representatives will establish State Computation and Control Centers.

(a) State representatives will gather data, exchange data, and meet prior to the annual Commission meeting to discuss computation results.
(b) The Engineer Advisory Committee will report to the Commission on compliance with the Compact.

B. **Management Period for Compact Compliance Computations**

(1) Computation will be on the calendar year basis.
(2) Water data for a calendar year should be exchanged prior to March 15 of the following year.
(3) Compact Compliance Computation for a calendar year should be completed by April 15 of the following year.

3. **Enforcement of Compact Compliance Requirements.**

A. Texas will be responsible for insuring that the sum of Texas uses does not exceed the total Texas water use authorized by the Red River Compact, and Texas will be responsible for establishing legal authority within Texas for enforcing the restrictions imposed by the Red River Compact.

B. Oklahoma will be responsible for insuring that the sum of Oklahoma uses does not exceed the total Oklahoma water use authorized by the Red River Compact, and Oklahoma will be responsible for establishing legal authority within Oklahoma for enforcing the restrictions imposed by the Red River Compact.

C. **Annual Accounting:** Pursuant to Section 2.11 of the Compact, accounting for apportionment purposes is not mandatory until Texas or Oklahoma deem the accounting necessary.

4 Data Reporting Procedures.

A. **Streamflow Gauging Station Records:** The Engineer Advisory Committee will make arrangements with federal and state agencies, as required, to collect calendar year data as needed, and forward to the Texas and Oklahoma Computation Control Centers.

B. **Archived Records:** Records will be archived by the Commission Chairman.

5. Compact Provisions

A. Sec. 4.01, Subbasin 1–Interstate streams--Texas, prescribes:

(a) This includes the Texas portion of Buck Creek, Sand (Lebos) Creek, Salt Fork Red River, Elm Creek, North Fork Red River, Sweetwater Creek, and Washita River, together with all their tributaries in Texas which lie west of the 100th Meridian.

(b) The annual flow within this subbasin is hereby apportioned sixty (60) percent to Texas and forty (40) percent to Oklahoma.

B. Section 4.01 is modified in part by Section 4.05, Special Provisions, as follows:

(b) Texas shall not accept for filing, or grant a permit, for the construction of a dam to impound water solely for irrigation, flood control, soil conservation, mining and recovery of minerals, hydroelectric power, navigation, recreation and pleasure, or for any other purpose other than for domestic, municipal, and industrial water supply, on the mainstem of the North Fork Red River or any of its tributaries within Texas above Lugert-Altus Reservoir until the date that imported water sufficient to meet the municipal and irrigation needs of Western Oklahoma is provided, or until January 1, 2000, whichever occurs first.

6. Compact Compliance North Fork Red River Watershed

A. **Gauges** - USGS streamflow gauge on the North Fork of the Red River near Shamrock, Texas (07301300) is approximately 16 miles from the Oklahoma-Texas State Line and measures flow from a 1,082 square mile drainage area of which 379 square miles are probably non-contributing. USGS streamflow gauge near Carter, Oklahoma (07301500) is approximately 30 miles downstream from the Oklahoma-Texas State Line and measures flow from a 2337 square mile drainage area of which 399 square miles are probably non-contributing. The drainage area of the North

Fork Red River at the Oklahoma-Texas State line is computed as 1229 square miles of which 379 square miles are probably non-contributing.

B. **Actual Delivery** - The actual annual delivery at the Oklahoma Texas State line shall be computed using the USGS streamflow gauge North Fork Red River near Shamrock (07301300) and the USGS streamflow gauge North Fork Red River near Carter, Oklahoma (07301500) as follows:

(1) The annual flow at the Shamrock gauge,

(2) Minus channel losses to Shamrock gauge flows between the gauge and State line (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment),

(3) Plus Texas' flow between Shamrock gauge and the State line. (This flow will be computed by subtracting the flow of the Shamrock gauge from the flow at the Carter gauge. Then based on the intervening drainage area between the Shamrock and Carter Gauges, adjusted for both Texas and Oklahoma man-made depletions determine the runoff per square mile of contributing drainage which will be applied to the contributing drainage area in Texas below the Shamrock gage.), and

(4) Minus Texas' man-made depletions downstream from the Shamrock gage.

C. **Scheduled Delivery** - The scheduled annual delivery at the Oklahoma Texas State line is 40 percent of the natural flow at State line without diversions or impoundments, and shall be computed as 40 percent of the following:

(1) The actual annual delivery at Oklahoma State line (above),

(2) Plus man-made depletion in Texas, and

(3) Minus the increased channel losses in Texas which would have occurred if Texas had not depleted the flows (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment).

D. **Compact Compliance** - Compact compliance is achieved as long as the actual delivery exceeds the scheduled delivery.

7. Compact Compliance Sweetwater Creek Watershed in Texas

A. **Gauges** - USGS streamflow gauge on Sweetwater Creek near Kelton, Texas (07301410), is about 8 miles upstream from the Oklahoma Texas State line and measures flow from a 287 square mile drainage area, of which 20 square miles is probably non-contributing. USGS streamflow gage on Sweetwater Creek near Sweetwater, Oklahoma (07301420) is located near the Oklahoma Texas State line and measures flow from a 424 square mile drainage area, of which 20 square miles is probably non-contributing. The drainage area of Sweetwater Creek at the Oklahoma Texas state line is computed as 371 square miles with 20 square miles being non-contributing. The actual annual delivery at Oklahoma Texas state line shall be computed using the USGS streamflow gauge on Sweetwater Creek near Kelton (07301410) and the USGS streamflow gauge on Sweetwater Creek near Sweetwater, Oklahoma (07301420) as follows:

B. **Actual Delivery** - The actual annual delivery at the Oklahoma Texas State line shall be computed as follows:

(1) The annual flow at the Kelton gauge,

(2) Minus channel losses to Kelton gauge flows between gauge and State line (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment),

(3) Plus Texas' flows between the Kelton gage and the State line. (This flow will be computed by subtracting the flow of the Kelton gauge from the flow at the Sweetwater gauge. Then based on Texas' drainage areas between the Kelton gauge and the Sweetwater gauge, adjusted for both Texas and Oklahoma man-made depletions determine the runoff per square mile of contributing drainage which will be applied to the contributing drainage area in Texas below the Kelton gauge.), and

(4) Minus Texas' man-made depletions between the Kelton gauge and the state line.

C. **Scheduled Delivery** - The scheduled annual delivery at the Oklahoma Texas State line is 40 percent of the natural flow at State line without diversions or impoundments, and shall be computed as 40 percent of the following:

(1) The actual annual delivery at State line (above),

(2) Plus man-made depletions in Texas, and

(3) Minus the increased channel losses in Texas which have occurred if Texas had not depleted the flows (until this specific channel loss value is available, the Compact compliance calculations will be made ignoring this channel loss adjustment).

D. Compact Compliance - Compact compliance is achieved as long as the actual delivery exceeds the scheduled delivery.

Adopted by unanimous consent of the Commission April 22, 2008 at Marshall, Texas.

RED RIVER COMPACT COMMISSION

Gordon W. "Jeff" Fassett, Chairman

STATE OF ARKANSAS

J. Randy Young
Arkansas Commissioner

Earl Smith, Acting Arkansas Commissioner

STATE OF TEXAS

William A. Abney
Texas Commissioner

Herman R. Settemeyer, Acting Commissioner

STATE OF LOUISIANA

Arthur R. Theis
Louisiana Commissioner

Zahir "Bo" Bolourchi, Acting
Louisiana Commissioner

STATE OF OKLAHOMA

Duane A. Smith
Oklahoma Commissioner

Charles Lynn Dobbs
Oklahoma Commissioner

RED RIVER COMPACT INTERIM RULES AND REGULATIONS
To Compute and Enforce Compact Compliance
REACH II, SUBBASIN 5

(Adopted 4/30/87)

1. These rules and regulations to be used to compute and enforce Compact compliance within Subbasin 5 of Reach II, Red River Compact, are adopted subject to the following conditions and assumptions.
   a. It is fully understood that these rules and regulations should be modified as new or improved gaging stations are constructed, whenever experience or detailed studies demonstrate the need for modification, and if the Commission should modify its interpretation of Compact provisions relating to this Subbasin.
   b. Definitions:
      (1) "Diversion" as used in these rules and regulations, is the net loss to a water source from use by a diverter, and is computed as the diversion from the water source minus the part of the diversion which is returned to the water source. Normally, return flows must be measured to be considered; however, the EAC may consider and recommend exceptions. As used herein, "diversion" is equivalent to "net diversion" from a water source and to "depletion" or "consumptive use" of a water source.

2. **Management of Compact Compliance Computations.**
   a. **Management Using State Centers:**
      (1) State EAC representatives will establish State Computation Control Centers
         (a) State representatives will gather data, exchange data and meet via conference call to check on computation results, if necessary.
         (b) EAC will determine compliance with Compact.

   b. **Management Period for Weekly Flow and Diversions:**
      (1) Next week's State diversions will be allocated based on last week's compliance computations.
      (2) It is each State's responsibility to limit its total State diversion allocation among its State diverters.
      (3) The weekly period for use and flow data will start and end at 8:00 a.m. on Tuesday of each week.
      (4) Data collection and dissemination will be completed on Tuesday of each week.
      (5) Computation of Compliance will be completed on Wednesday of each week.
      (6) Each State can request an update at any time.

   c. **Management Improvement Studies:** The EAC will monitor the effect on accounting management of the following factors and will report thereon to the Commission whenever procedure changes appears desirable.

      (1) Errors caused by travel time.
      (2) Future restrictions computed from past week's data.
      (3) Failure to consider channel loss.
      (4) Failure to consider ungaged return flows.
      (5) Failure to consider flow trends.

(6) Addition of needed gages.

3. **Enforcement of Compact Compliance Requirements.** Each State will be responsible for insuring that the sum of the diversions by State users does not exceed the total State diversion authorized by the Red River Compact. In this regard, each State will be responsible for establishing clear legal authority within its State for enforcing the restrictions imposed by the Red River Compact.

4. **Data Reporting Procedures.**
   a. **Streamflow Gaging Station Records:** The EAC will make arrangements with the Corps of Engineers, the U.S. Geological Survey and with States as required to collect daily and/or weekly data, as needed, and forward to the State Computation and Control Centers.
   b. **Diversion Records:** Each State will be responsible to collect daily and/or weekly data, as needed, and forward to the State Computation and Control Centers.
   c. **Archived Records:** Records will be archived by Commission Chairman.

5. **General Compliance Requirements of Section 5.05, Red River Compact.**
   a. **Section 5.05 (b)(1):**
      (1) **Compact prescribes:** "The Signatory States shall have equal rights to the use of the runoff originating in subbasin 5 and undesignated water flowing into subbasin 5, so long as the flow of the Red River at the Arkansas-Louisiana state boundary is 3,000 cubic feet per second or more, provided no state is entitled to more than 25 percent of the water in excess of 3,000 cubic feet per second."
      (2) In computing the Subbasin 5 water allocation, when the flow of the Red River at the Arkansas-Louisiana State Boundary is 3,000 cfs or more and the total runoff and undesignated flow of Subbasin 5 is greater than or equal to 7,500 cfs but less than or equal to 12,000 cfs, Louisiana's allocation shall be 3,000 cfs and each of the three upstream states will equally share the runoff and undesignated flow in excess of 3,000 cfs.
      (3) When the total runoff and undesignated flow of Subbasin 5 is 12,000 cfs or more, each of the signatory states shall be entitled to 25% of the total runoff and undesignated flow.
      (4) State compliance with Section 5.05 (b)(1) does not need to be determined except when specifically requested by a Compact State.

   b. **Section 5.05 (b)(2):**
      (1) **The Compact states:** "Whenever the flow of the Red River at the Arkansas-Louisiana state boundary is less than 3,000 cubic feet per second, but more than 1,000 cubic feet per second, the States of Arkansas, Oklahoma, and Texas shall allow to flow into the Red River for delivery to the State of Louisiana a quantity of water equal to 40 percent of the total weekly runoff originating in subbasin 5 and 40 percent of undesignated water flowing into subbasin 5; provided, however, that this equirement shall not be interpreted to require any state to release stored water."
      (2) In computing the Subbasin 5 water allocation to Louisiana when flow of Red River at the Arkansas-Louisiana State boundary is less than 3,000 cfs but more than 1,000 cfs, the Subbasin 5 runoff for each of the three upstream States and the undesignated water flowing into Subbasin 5 from each upstream State totaled, and the three upstream States should allow to pass to Louisiana 40 percent of the total, or 1,000 cfs, whichever is greater.

(3) When the Subbasin 5 runoff plus undesignated water totals at least 2,500 cfs and not more than 7,500 cfs, each of the three upstream States are allocated 60 percent of its runoff plus undesignated inflow and the other 40 percent is to be allowed to flow into the Red River for delivery to Louisiana.

(4) When the Subbasin 5 runoff plus undesignated water totals at least 1,000 cfs but less than 2,500 cfs, the allocation to Louisiana is 1,000 cfs because of Compact Section 5.05 (b)(3). The total Subbasin 5 runoff plus undesignated water is compared to the Louisiana allocation of 1,000 cfs and a percentage is established. Each of the three upstream States will be entitled to divert and use a quantity computed using (100 percent minus the established percentage) times (the total of runoff from its Subbasin 5 areas plus undesignated water flowing into its Subbasin 5 areas).

(5) This Compact compliance determination should be made whenever the flow of the Red River at the Arkansas-Louisiana State boundary falls below 3,000 cfs and is more than 1,000 cfs.

c. **Section 5.05 (b)(3):**

(1) **The Compact states:** "Whenever the flow of the Red River at the Arkansas-Louisiana state boundary falls below 1,000 cubic feet per second, the States of Arkansas, Oklahoma, and Texas shall allow a quantity of water equal to all the weekly runoff originating in Subbasin 5 and all undesignated water flowing into Subbasin 5 within their respective states to flow into the Red River as required to maintain a 1,000 cubic foot per second flow at the Arkansas-Louisiana state boundary."

(2) In computing the Subbasin 5 allocation when the flow of the Red River at the Arkansas-Louisiana State boundary falls below 1,000 cfs, and when the Subbasin 5 runoff and undesignated water flowing into Subbasin 5 total 1,000 cfs or less, all flow must be passed to Louisiana.

(3) When the Subbasin 5 runoff and undesignated water flowing into Subbasin 5 total more than 1,000 cfs but less than 2,500 cfs, Louisiana is allocated 1,000 cfs. This 1,000 cfs Louisiana entitlement is compared to the total runoff plus undesignated water and a percentage is established. Each of the three upstream States will be entitled to divert and use a quantity computed using (100 percent minus the established percentage) times (its total State runoff and undesignated water inflow).

(4) See rules for Compact Section 5.05 (b)(2) when the Subbasin 5 runoff and undesignated water flowing into Subbasin 5 total 2,500 cfs or more up to 7,500 cfs.

(5) This Compact compliance determination should be made whenever the flow of the Red River at the Arkansas-Louisiana State boundary falls below 1,000 cfs.

d. **Section 5.05 (c):**

(1) **The Compact states:** "Whenever the flow at Index, Arkansas, is less than 526 c.f.s., the states of Oklahoma and Texas shall each allow a quantity of water equal to 40 percent of the total weekly runoff originating in Subbasin 5 within their respective states to flow into the Red River; provided however, this provision shall be invoked only at

the request of Arkansas, only after Arkansas has ceased all diversions from the Red River itself in Arkansas above Index, and only if the provisions of Sub-sections 5.05 (b)(2) and (3) have not caused a limitation of diversions in subbasin 5."

(2) In computing the Subbasin 5 allocation when flow of Red River at Index Arkansas is less than 256 cfs, the States of Oklahoma and Texas are to pass 40 percent of weekly runoff from respective Subbasin 5 areas.

(3) This Compact compliance determination will be made only when requested by Arkansas, only after Arkansas has ceased all diversions from the Red River, and only if the provisions of subsections 5.05 (b)(2) and (3) have not caused a limitation of diversions in Subbasin 5.

6. **Procedures (Disregarding Designated Flows) to Compute State Runoff, Runoff plus Undesignated Inflows, and Flow of Red River at Arkansas-Louisiana State Boundary.**

a. **Oklahoma.**

(1) **Runoff plus Undesignated Inflows of Denison Dam to DeKalb Gage:**

(a) Kiamichi River near Hugo, OK, Gage flow, plus Muddy Boggy Creek near Unger, OK, Gage flow plus Blue River near Blue, OK Gage flow, plus

(b) Fifty percent of (DeKalb Gage flow, plus Texas and Oklahoma diversions, minus gaged flows at Kiamichi River near Hugo, Ok, Muddy Boggy Creek near Unger, OK, Blue River near Blue, OK, and Sanders Creek near Chicota, Texas, streamflow Gages).

(2) **Runoff plus Undesignated Inflows, DeKalb Gage to Oklahoma-Arkansas State line:** Fifteen and one-half (15.5) percent of (Index Gage flow, minus DeKalb Gage flow, plus Oklahoma, Texas and Arkansas diversions downstream from DeKalb Gage).

(3) **Runoff only, Denison Dam to Oklahoma-Arkansas State line.**

(a) Fifty percent of (DeKalb Gage flow, minus Red River at Denison Dam Gage flow, plus Texas and Oklahoma diversions upstream from DeKalb Gage, minus Blue River near Blue, OK, Gage flow, minus Muddy Boggy Creek near Unger-Okla. Gage flow, minus Kiamichi River near Hugo-Okla. Gage flow minus Gage flow), plus

(b) Fifteen and one-half (15.5) percent of (Index Gage flow, minus DeKalb Gage flow, plus Oklahoma, Texas and Arkansas diversions between DeKalb and Index Gages).

b. **Texas.**

(1) **Runoff plus Undesignated Inflows, DeKalb Gage to Index Gage:**

(a) Sanders Creek near Chicota Gage flow, plus

(b) Fifty percent of: (DeKalb Gage flow, plus Texas and Oklahoma diversions, minus gaged flows at Kiamichi River near Hugo, OK, Muddy Boggy Creek near Unger, OK, Blue River near Blue, OK, and Sanders Creek near Chicota, TX, streamflow Gages).

(2) **Runoff plus Undesignated Inflows, DeKalb Gage to Index Gage:** Fifty (50) percent of (Index Gage flow, minus DeKalb Gage flow, plus Oklahoma, Texas and Arkansas diversions downstream from DeKalb Gage).

(3) **Runoff plus Undesignated Inflows, Sulphur River Gage:** One hundred percent of (Sulphur River near Texarkana Gage flow) minus (Texas diversions from river below gage) plus (Texas diversions below Texarkana Dam).

(4) **Runoff Only, Denison Dam to Index Gage:** Fifty percent of (Index Gage flow, minus Red River at Denison Dam Gage flow, plus Oklahoma and Texas and Arkansas diversions upstream from the Index Gage, minus Blue River near Blue, OK, Gage flow, minus Muddy Boggy Creek near Unger-Okla. Gage flow, minus Kiamichi River near Hugo-Okla. flow, minus Sanders Creek near Chicota-Texas Gage flow).

c. **Arkansas Runoff plus Undesignated Inflows.**

(1) **Oklahoma-Arkansas State Line to Index Gage:** Thirty-four and one-half (34.5) percent of (Index Gage flow, minus DeKalb Gage flow, plus Oklahoma and Texas and Arkansas diversions between DeKalb and Index Gages).

(2) **Index Gage to Hosston Gage:**

(a) Hosston Gage flow, plus Louisiana diversions above Hosston Gage, minus Index Gage flow, minus (Sulphur River near Texarkana Gage flow less Texas diversions from river below gage), plus Arkansas diversions downstream from Index Gage.

d. **Louisiana Streamflow at Arkansas-Louisiana State Boundary.**

(1) **Red River flow at Arkansas-Louisiana State boundary** equals (Gage flow) plus (Louisiana diversions from Red River downstream from the State boundary and upstream from gage).

(2) **Data needed to make interim Louisiana calculations**

(a) **For Red River flows up to 5,000 cfs** - Hosston Gage flow, plus Louisiana diversions from Red River upstream from Hosston Gage.

(b) **For Red River flows of 5,000 cfs or larger** - Shreveport Gage flow, plus Louisiana diversions from Red River upstream from Shreveport Gage, minus Twelvemile Bayou near Dixie-La Gage flow, plus Louisiana diversions from Twelvemile Bayou below Twelvemile Bayou near Dixie-La Gage.

(3) **Effect of Flow Trends, Scheduled Change of Reservoir Releases, and Other Events Certain to Significantly Change Flow at Arkansas-Louisiana State Boundary During Coming Week.**
In addition to the Arkansas-Louisiana State boundary flow estimated based on subparagraph (2) (a) or (b) above, the EAC will also advise the Commission of probable significant changes in State boundary flow which should result from flow trends, scheduled change of reservoir releases, and other such known events.

7. **Procedures (Using Designated Flow Data) to Compute State Runoff plus Undesignated Inflows and Flow of Red River at Arkansas-Louisiana State boundary.** Procedures outlined in paragraph 6 above will be followed except that designated inflows, designated outflows and diversion of designated flows will be accounted for whenever appropriate.

RED RIVER COMPACT RULES AND REGULATIONS
To Compute and Enforce Compact Compliance
REACH III, SUBBASIN 3

(as amended 4/25/89)

1. These rules and regulations to be used to compute and enforce Compact compliance within Subbasin 3 of Reach III, Red River Compact, are adopted subject to the following conditions and assumptions.
   a. It is fully understood that these rules and regulations should be modified whenever experience or detailed studies demonstrate the need for modification, and if the Commission should modify its interpretation of Compact provisions relating to this Subbasin.
   b. **Definitions:**
      (1) "Diversion", as used in these rules and regulations, is the net loss to a water source from use by a diverter, and is computed as the diversion from the water source minus the part of the diversion which is returned to the water source. Normally, return flows must be measured to be considered; however, the Engineering Committee may consider and recommend exceptions. As used herein, "diversion" is equivalent to "net diversion" from a water source and to "depletion" or "consumptive use" of a water source.
      (2) "Drawdown", as used in these rules and regulations, means that period commencing on the first day water ceases spilling over the existing Caddo Lake spillway (or the raised spillway, if Caddo Lake is enlarged), and continuing so long as the Caddo Lake surface elevation continues to fall, until the day when appreciable inflow reaches Caddo Lake, causing the Caddo Lake surface elevation to rise leading to a spill from Caddo Lake.

2. **Management of Compact Compliance Computations.**
   a. **Management Using State Centers:**
      (1) State Engineering Committee representatives will establish State Computation Control Centers.
         (a) State representatives will gather data, exchange data and meet via conference call to check on computation results, if necessary.
         (b) The Engineering Committee will compute compliance with Compact.
   b. **Management Period for Compact Compliance Computations:**
      (1) Next week's State diversions will be allocated based on last week's compliance computations.
      (2) It is each State's responsibility to limit its total State diversion allocation among its State diverters.
      (3) The weekly period for use and flow data will start and end at 8:00 a.m. on Tuesday of each week.
      (4) Data collection and dissemination will be completed on Tuesday of each week.
      (5) Computation of Compliance will be completed on Wednesday of each week.
      (6) Each State can request an update at any time.

   c. **Management Improvements Studies:** The Engineering Committee will monitor the effect on accounting management of the following factors and will report thereon to the Commission whenever procedure changes appear desirable.

(1) Errors caused by travel time.
(2) Future restrictions computed from past week's data.
(3) Failure to consider channel loss.
(4) Failure to consider ungaged return flows.
(5) Failure to consider flow trends.
(6) Addition of needed gages.

3. **Enforcement of Compact Compliance Requirements.** Each State will be responsible for insuring that the sum of the diversions by State users does not exceed the total State diversion authorized by the Red River Compact Commission. In this regard, each State will be responsible for establishing clear legal authority within its State for enforcing the restrictions imposed by the Red River Compact.

4. **Data Reporting Procedures.**
   a. **Streamflow Gaging Station Records:** The Engineering Committee will make arrangements with Corps of Engineers, the U.S. Geological Survey and with States as required to collect daily and/or weekly data, as needed, and forward to the State Computation and Control Centers.
   b. **Diversion Records:** Each State will be responsible to collect weekly data, as needed, and forward to the State Computation and Control Centers.
   c. **Archived Records:** Records will be archived by the Commission Chairman.

5. **General Compliance Requirements of Section 6.03 Red River Compact.**
   a. **Section 6.03 (b)(1):**

      (1) **The Compact states:** "Texas shall have the unrestricted right to all water above Marshall, Lake O' the Pines, and Black Cypress damsites; however, Texas shall not cause runoff to be depleted to a quantity less than that which would have occurred with the full operation of Franklin County, Titus County, Ellison Creek, Johnson Creek, Lake O' the Pines, Marshall, and Black Cypress Reservoirs constructed, and those other impoundments and diversions existing on the effective date of this Compact. Any depletions of runoff in excess of the depletions described above shall be charged against Texas' apportionment of the water in Caddo Reservoir."
      (2) Texas may use the bed and banks of the streams or tributaries available within this Subbasin to convey its developed water downstream from the aforesaid dam sites to specified authorized users. Such water would retain its identity and would not be subject to the Caddo Lake drawdown provisions of Section 5.b. of these rules until passing the designated point of diversion. Appropriate transportation losses will be approved by the Red River Compact Commission.
      (3) Until both Marshall Reservoir (with an estimated capacity of 782,300 acre-feet and yield of 325,000 acre-feet annually) and Black Cypress Reservoir (with estimated capacity of 824,400 acre-feet and yield and 220,000 acre-feed annually) have been constructed, it will be virtually impossible for Texas to deplete runoff in excess of that authorized. In the future, whenever potential Texas depletions above Marshall, Lake O' the Pines, and Black Cypress damsites become a concern to Louisiana, procedures to compute Texas depletion of runoff in excess of that authorized by Section 6.03 (b)(1) of the Compact should be developed by

   b. **Section 6.03 (b)(2):**
      (1) **The Compact states:** "Texas and Louisiana shall each have the unrestricted right to use fifty (50) percent of the conservation storage capacity in the present Caddo Lake for the impoundment of water for state use, subject to the provision that supplies for existing uses of water from Caddo Lake, on date of Compact, are not reduced."

(2) Whenever water is spilling over the existing spillway at 168.5 feet above mean sea level, each state may withdraw or divert water from Caddo Lake without restriction.

(3) Whenever Caddo Lake is not spilling over the existing spillway at 168.5 feet above mean sea level, the total consumptive use by each state shall not exceed 8,400 acre-feet during the drawdown period, provided that neither state shall divert more than 3,600 acre-feet during any one month or 4,800 acre-feet during any two consecutive months.

c. **Section 6.03 (b)(3):**

(1) **The Compact states:** "Texas and Louisiana shall each have the unrestricted right to fifty (50) percent of the conservation storage capacity of any future enlargement of Caddo Lake, provided the two states may negotiate for the release of each state's share of the storage space on terms mutually agreed upon by the two states after the effective date of this Compact."

(2) This Compact provision requires no separate computation procedures but other rules may be changed if enlargement of Caddo Lake occurs. If enlargement of Caddo Lake is authorized in the future, the Engineering Committee should review and modify as necessary Rule 5 (b) and Rule 6.

d. **Section 6.03 (b)(4):**

(1) **The Compact states:** "Inflow to Caddo Lake from its drainage area downstream from Marshall, Lake O' the Pines, and Black Cypress damsites and downstream from other last downstream dams in existence on the date of the signing of the Compact document by the Compact Commissioners, will be allowed to continue flowing into Caddo Lake except that any manmade depletions to this inflow by Texas will be subtracted from the Texas share of the water in Caddo Lake."

(2) As indicated in paragraph 5 a. (2) above, it is virtually impossible for Texas at the present time to reduce inflow to Caddo Lake below that which would occur with both Marshall and Black Cypress Reservoirs constructed and operating. However potential Texas depletions become a concern to Louisiana, procedures to compute excess depletion by Texas of inflow to Caddo Lake should be develop by the Engineering Committee and presented for Commission Consideration.

e. **Section 6.03 (c):**

(1) **The Compact states:** "In regard to the water of interstate streams which do not contribute to the inflow to Cross Lake or Caddo Lake, Texas shall have the unrestricted right to Divert and use this water on the basis of a division of runoff above the state boundary of sixty (60) percent to Texas and forty (40) percent to Louisiana."

(2) The Engineering Committee will review known Texas diversion data for the previous year and report to the Commission any Texas non-compliance with Compact Section 6.03 (c).

f. **Section 6.03 (d):**

(1) **The Compact states:** "Texas and Louisiana will not construct improvements on the Cross Lake watershed in either state that will affect the yield of Cross Lake; provided, however, this subsection shall be subject to the provisions of Section 2.08."

(2) The Engineering Committee will renew any known improvements on the Cross Lake watershed and report to the Commission any non-compliance with Compact Section 6.03 (d).

6. **Caddo Lake Content Accounting Procedure During Drawdown Periods.**

a. Whenever water is spilled from Caddo Lake, both state's accounts are full and no accounting is necessary. Accounting shall start the first day of no-spill following each period of spilling and shall continue until the first day of spill in the next period of spilling. The accounting procedure for computing the quantity of water in Caddo Lake during periods of drawdown belonging to the States of Louisiana and Texas shall be as follows:

(1) At the beginning of the drawdown, the Caddo Lake contents belong 50 percent to each state. Otherwise, begin with water ownership on Caddo Lake as shown in the most recent previous report.

(2) Each State shall be credited with one-half of the inflow to Caddo Lake since the previous report.

(3) Each State's account shall be reduced by its share of Caddo Lake evaporation losses during the period since the previous report.

(4) Each State's account shall be reduced by its diversions from Caddo Lake since the previous report.

(5) A State's account shall not exceed 50 percent of the capacity of Caddo Lake. If these accounting procedures result in a greater State content than 50 percent of the total capacity of Caddo Lake, the excess computed quantity shall be "spilled" into the other State's account as needed to bring the other State's account up, but in no case shall either State's account exceed 50 percent of the total capacity of Caddo Lake.

b. Using a stage-area-capacity relationship concurred in by both States, the content of Caddo Lake at the end of each accounting period shall be determined and inflow for that period shall be computed as follows:

(1) From the present content, as determined above, subtract the content determined at the end of the previous period.

(2) Add to the figure resulting from Step (1) the total Texas and Louisiana diversions since the end of the previous period.

(3) Add to the figure resulting from Step (2) the computed gross evaporation since the end of the previous period as determined in c. (2) below. This results in total inflow.

c. **Evaporation will be computed as follows:**

(1) The Weather Bureau's pan evaporation data shall be used to compute gross lake evaporation using a standard conversion coefficient agreed to by the engineer advisors of each State.

(2) The average lake surface area for the accounting period shall be determined from the stage-area-capacity relationship concurred in by both States and multiplied by the gross lake evaporation as determined in Step (1) to determine the volume of evaporation for the period.

7. **Availability of Diversion Records.** Arrangements shall be made for all Texas and Louisiana diverters, during "drawdown" of Caddo Lake, to maintain daily diversion records open for inspection, and to provide weekly use d