THE GOVERNOR'S WATER CONFERENCE

"WATER: The Issue of the 80s"

December 15, 1980

Skirvin Plaza Hotel
One Park Avenue

Sheraton Century Center
Broadway and Main

Oklahoma City, Oklahoma

George Nigh
Governor

GEORGE NIGH
GOVERNOR

STATE OF OKLAHOMA
OFFICE OF THE GOVERNOR
OKLAHOMA CITY

December 15, 1980

GREETINGS:

It is certainly a pleasure to welcome you to our first Statewide Water Conference, "Water : The Issue of the 80's", a forum for the discussion of Oklahoma's water future.

I am firmly convinced that water will replace energy in the next ten years as Oklahoma's most serious challenge. This problem is rapidly becoming more evident, especially when we look back at the severe water problems faced by hundreds of our communities this past summer.

It is essential, therefore, that we join together to discuss all aspects of this critical issue. We must be aware of the need to develop a comprehensive statewide plan of water management--a plan that will assure dependable supplies of good water to all Oklahomans, now and in the years ahead.

As Governor, I urge you to assume an active role in the discussions here today as we work together for Oklahoma.

"Coming together is a beginning,
Staying Together is progress,
Working together is success!"

Sincerely,

GEORGE NIGH

AGENDA

SHERATON CENTURY CENTER

8:00 – 9:00 Registration

9:00 – 9:05 Opening Remarks
Gerald Borelli, Chairman
Oklahoma Water Resources Board

9:05 – 9:15 Welcome and Introduction
Robert S. Kerr, Jr., Conference Chairman

9:15 – 9:40 Keynote Address
The Honorable George Nigh, Governor

9:40 – 10:10 Water Resources Development Financing
– A Discussion of Alternatives
Dr. Herbert Grubb,
Director of Planning
Texas Department of Water Resources

10:10 – 10:30 Arkansas Red River Basin Chloride Control
W.M. (Bill) Gamel, Chief of Engineering
Tulsa District Corps of Engineers

10:30 – 10:50 Oklahoma Water, Present and Future
Joe Hall, Conservation Officer
Western Area Power Administration
Golden, Colorado

10:50 – 11:20 Oklahoma Comprehensive Water Plan
James R. Barnett, Executive Director
Oklahoma Water Resources Board

11:20 – 11:30 Wrap Up
Robert S. Kerr, Jr.

SKIRVIN PLAZA HOTEL

11:45 – 1:30 Luncheon
Jim Gillie, Assistant to the Vice President
Public Affairs
Phillips Petroleum Company

Congressional Delegates in Attendance

1:30 – 3:15 **Afternoon Sessions**

3:15 – 4:20 General Assembly
Summarization of Afternoon Sessions
by Moderators

4:20 – 4:30 Closing Remarks
Governor Nigh

4:30 Adjourn

Water: A Time For Action

The Governor's Second Annual Water Conference

December 1, 1981

Lincoln Plaza Inn
Oklahoma City, Oklahoma

Water: A Time For Action
AGENDA

8 A.M. **REGISTRATION, COFFEE**

9:00 **WELCOME, OPENING REMARKS**
James H. Norick, Honorary Host
Robert J. LaFortune, Conference Chairman

9:20 **KEYNOTE ADDRESS**
The Honorable George Nigh

9:45 **CONCURRENT SESSIONS, DISCUSSION**
Water for Agriculture
Water for Commerce and Industry
Public Water Supply

NOON **LUNCHEON PROGRAM**
"National Water Policy — A New Partnership,"
The Honorable Garrey E. Carruthers, Assistant Secretary of Interior for Land and Water Resources
The Honorable Marvin York, President Pro Tempore, Senate
The Honorable Dan Draper, Speaker, House of Representatives

2 P.M. **CONCURRENT SESSIONS, ACTION RECOMMENDATIONS**
Water for Agriculture
Water for Commerce and Industry
Rural Water
Municipal Water

4:15 **CO-CHAIRMEN REPORTS, RESPONSE**
Robert J. LaFortune
Gerald E. Borelli
Patty Eaton
Dr. Tom Hurst

4:45 **CLOSING REMARKS, ADJOURN**
Gov. Nigh
James H. Norick

CONFERENCE SPEAKERS

Dr. Carruthers

Mr. Draper

Mr. York

Mr. LaFortune

Mr. Norick

Mr. Borelli

Mrs. Eaton

Dr. Hurst

"The test of our progress is not whether we add more to the abundance of those who have too much; it is whether we provide enough for those who have too little."

—Franklin Delano Roosevelt

Governor George Nigh
invites you to share in seeking
creative alternatives in addressing
Oklahoma's water issues of importance
at the
Governor's Second Annual Water Conference
on Tuesday, December 1, 1981
beginning at 8a.m.
at the Lincoln Plaza Inn
Oklahoma City, Oklahoma

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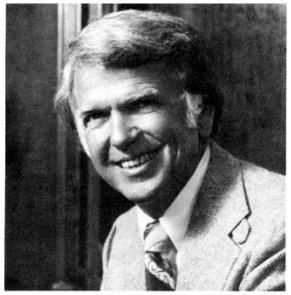
Water: Meeting the Challenge

December 7, 1982

Hilton Inn West, Oklahoma City



Governor George Nigh

8 a.m. **REGISTRATION** - Lobby

9:00 **GENERAL SESSION** - North Ballroom
Welcome - Robert S. Kerr, Jr., Conference Chairman

9:15 **KEYNOTE ADDRESS**
The Honorable George Nigh
Governor of Oklahoma

9:45 **FEDERAL WATER PROGRAMS**
William R. Gianelli, Assistant Secretary of the Army for Civil Works

10:30 **THE EPA'S CHANGING ROLE**
Frederic A. Eidsness, Jr., Assistant Administrator, Office of Water, EPA

11:00 **NEW RESPONSIBILITIES FOR OKLAHOMA**
Glenn H. Sullivan, Executive Vice-President, The Benham Group

NOON **LUNCHEON PROGRAM** - South Ballroom
Governor George Nigh
The Honorable Marvin York, President Pro Tempore, Senate
The Honorable Dan Draper, Speaker, House of Representatives

CONSERVATION —CALIFORNIA'S HOTTEST EXPORT - Ronald B. Robie, Director, California Department of Water Resources

2-4 p.m. **CONCURRENT SESSIONS** - North Ballroom
Public Water Supply - *Allegheny Room*
Water for Commerce and Industry - *Blueridge Room*
Water for Agriculture - *Cumberland Room*
Water Awareness - *Shenandoah Room*

4:15-5:30 **CRACKER BARREL SESSION** - Gazebo
Cheese and crackers in a relaxed atmosphere and an opportunity to have your question answered by an expert.

William R. Gianelli has been responsible for the Army Corps of Engineers Civil Works Program for water resources since June 1981. He was director of the California Department of Water Resources during construction of initial features of the $2.5 billion State Water Project.

Frederic A. Eidsness administers the Clean Water and Safe Drinking Water Acts, manages a multi-billion dollar sewage treatment program, establishes national regulations to control the discharge of industrial pollutants and oversees $70 million in state program grants.

Ronald B. Robie, director, California Department of Water Resources, has served as vice-chairman of the State Water Resources Control Board, Consultant to the Assembly Committee on Water (California Legislature), and is a nationally recognized authority on water conservation.

Glenn H. Sullivan, executive vice-president and principal water resources engineer with the Benham Group, is a specialist in wastewater and water resources development. He has expertise in conducting feasibility and economic studies and solving water and energy problems.

MODERATORS AND PANELISTS

Public Water Supply - *Allegheny Room*

Moderator: William Morgan, Mayor, City of Norman

Panelists:
Dr. Jay Lehr, Executive Director, National Water Well Assn.
Andy Peck, Oklahoma Representative, Bureau of Reclamation
John Marsh, President, Engineering Enterprises, Inc.
Larry E. Stephenson, State Director, FmHA
Ed Schermerhorn, Rate Review Committee, City of Tulsa

Water for Agriculture - *Cumberland Room*

Moderator: Ferdie J. Deering, Former Editor, "Oklahoma Farmer Stockman"

Panelists:
Dr. Norman N. Durham, Director, Oklahoma Water Resources Research Institute, OSU
Bob Day, Irrigation Specialist, SCS
Dr. Billy Tucker, Extension Agronomist, OSU

Mini-Reports by:
Mike Mathis, Hydrologist Supervisor, OWRB
Joseph P. Marak, Section Supervisor, State Board of Agriculture
Robert Toole, Assistant Director, Oklahoma Conservation Commission
John Morgan, Assistant Manager of Pollution Abatement, Oklahoma Corporation Commission

Water Awareness *Shenandoah Room*

Moderator: JoAnn Puckett, President, League of Women Voters

Panelists:
R. Thomas Lay, General Counsel, OWRB
Dr. Wayne Pettyjohn, Head of Department of Geology, OSU
Dr. Harry Mapp, Professor of Agricultural Economics, OSU
Jim Schuelein, Hydrologist-Meteorologist, OWRB

Water for Commerce and Industry
Blueridge Room

Moderator: Ronn Cupp, Director of Governmental Affairs, Oklahoma State Chamber of Commerce

Panelists:
Charles Tyree, Chief, Environmental Affairs, OG&E
Sen. Tim Leonard, Oklahoma State Legislature
Bill Bryan, Engineer, Cities Service Company
Harry Hansen, President, Pollution Control Assn., Inc.
Rosie Stoos, Executive Director, Lake Eufaula Assn.
Dr. Wayne Turner, Professor; Rick Webb, Research Engineer, OSU School of Industrial Engineering

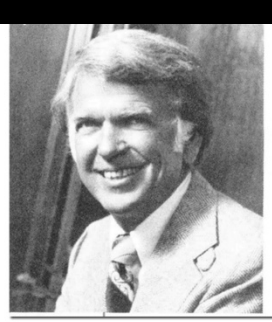
Announcing

The Governor's Fourth Annual Water Conference
October 25, 1983

in Conjunction with

The 52nd Annual Convention and Water Resources Seminar of the National Water Resources Association
October 24-27, 1983

Tulsa Assembly Center
Tulsa, Oklahoma



The Honorable George Nigh
Governor of Oklahoma

AGENDA

MONDAY, OCTOBER 24•WATER MANAGEMENT SEMINAR

8:00 Registration - Gallery, Third Level

9:30 Welcome, George Proctor, President
Keynote Address, The Honorable Wes Watkins

10:00 "Planning - A Skill for Water Managers"

11:00 "Effective Meeting Techiniques"

Noon Recess

1:30 "Computers and Information Systems for Water Management"

3:00 Adjourn

TUESDAY, OCTOBER 25• JOINT SESSIONS
Oklahoma Governor's Water Conference / NWRA

9:00 Musical Interlude, The Marching Scots of McLain High School

9:30 Call to Order, George Proctor, NWRA President
Welcome, The Honorable James Inhoff, Mayor of Tulsa

10:00 Keynote Address, The Honorable Donald Hodel, Secretary of Energy

10:30 State of the Association Address, President George Proctor

11:00 "The Rio Grande — Ribbon of Life," Bureau of Reclamation

11:20 Address - The Honorable Don Nickles

12:30 Awards Luncheon
Luncheon Address, The Honorable George Nigh, Governor

2:30 Announcements, Gerald E. Borelli, Chairman
James R. Barnett, Executive Director
Oklahoma Water Resources Board
"Financing Water Projects, Oklahoma Style" Robert M. Cochran
Senior Vice President, Stifel Nicolaus & Company

3:10 Panel Discussion - "Outlook for State and Regional Water Development"
Brig. Gen. Robert J. Dacey, U.S. Army Corps of Engineers
Commander and Division Engineer, Southwest Division
Eugene Hinds, Director, Bureau of Reclamation Southwest Region
Roland R. Willis, State Conservationist, Soil Conservation Service
Alfred Clebsch, Jr., Regional Hydrologist, U.S. Geological Survey

4:30 Adjourn

WEDNESDAY, OCTOBER 26

9:00 Opening Remarks
Vern Fahy, Director, North Dakota
"The Continuing Struggle for Water Projects"
The Honorable Allen Olson, Governor of North Dakota

9:30 "Developing Ground Water Resources," Dr. Wayne Pettyjohn
Chairman, Department of Geology, OSU

10:00 "World Water Watch," Valsin Marmillion, Manager of Public Information Programs, Atlantic Richfield Corporation, Los Angeles

10:45 "Financing Cost-Shared Projects," N.L. Hagan, Vice President
Municipal Utilities Department, Merrill Lynch, New York City

11:15 Presentation - Lt. Gen. Joseph K. Bratton, Chief of Engineers
U.S. Army Corps of Engineers

11:45 Presentation - The Honorable Robert Broadbent
Commissioner, Bureau of Reclamation

12:30 Recess

2:30 "Hydropower," Multi-Image Show by the Bureau of Reclamation

3:00 Washington Report, J.W. "Pat" O'Meara
NWRA Executive Vice President

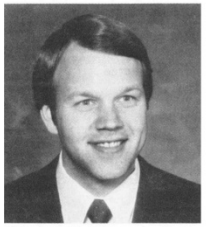
3:30 Committee Chair Reports, Adoption of Resolutions, Business Meeting

5:00 Adjourn

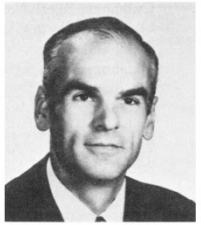
7:00 All States Banquet, John Specht, Master of Ceremonies

Rep. Wes Watkins

Commissioner
Robert N. Broadbent

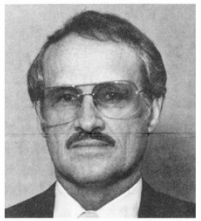


Sen. Don Nickles



Secretary Donald Hodel

Robert M. Cochran



Eugene Hinds

Brig. Gen. Robert J. Dacey

Lt. Gen. Joseph K. Bratton

Fifth Annual
GOVERNOR'S WATER CONFERENCE

Fifth Annual
GOVERNOR'S
WATER CONFERENCE

Paying for Water— It's Up to Us

Hilton Inn West, Oklahoma City

EARLY BIRD RECEPTION
December 11, 6:30–7:30 p.m.

AGENDA—December 12, 1984

8 a.m. **Registration, Coffee**

9:00 **Welcome**—Gerald E. Borelli
Chairman, Oklahoma Water Resources Board

9:15 **Keynote**—Joan M. Kovalic.
Executive Director, Gen. Counsel, Interstate Conference on Water Problems

Keynote—James R. Nelson, PhD
Prof., Agricultural Economics, OSU

10:00 **Remarks**—The Honorable Don Nickles
The Honorable Wes Watkins
Other Congressmen Invited

10:30 **Coffee, Visit Exhibits**

11:00 **Interstate Water Issues**
Michael C. Turpen, *Attorney General*
R. Thomas Lay, *Gen. Counsel, OWRB*

12:15 p.m. **Luncheon Program,** Introductions
The Honorable George Nigh, *Governor*
The Honorable Robert A. Olson, *Acting Commissioner, Bureau of Reclamation*

1:55 **PLANNING AND PAYING FOR WATER**
Moderated by JoAnn Puckett, *President Oklahoma League of Women Voters*

Using Hydraulic Analyses in Planning or Expanding Water Systems
Cecil Wildman, P.E.
Settle and Spear Engineers, Inc.

Oklahoma's Loan and Grant Assistance to Water, Sewer Improvements
James R. Barnett,
Executive Director, Oklahoma Water Resources Board

Realism in Rate-Setting
Claudia Peck, PhD, *Asst. Prof. Home Economics, OSU*

Rate Structures for Rural Water
Marie Dunn, CPA, *Oklahoma Rural Water Association Board*

2:55 **Break**

3:10 **WATER TO GROW ON—WATER FOR COMMERCE AND INDUSTRY**
Moderated by Charles L. Tyree
Chief, Environmental Affairs, ONG

Who Pays, Who Benefits from Conservation?
Francis M. Epplin, PhD, *Asst. Prof. Agricultural Economics, OSU*

Conservation Practices as Means of Improving Water Quality
John Hassell, *Director of Water Quality Programs, Oklahoma Conservation Commission*

Oklahoma's Waterway—the Giant is Awakening
Robert W. Portiss, *Port Director Port of Catoosa*

How Much Regulation for Industry's Water?

4:15–5:30 **Cracker Barrel Session—Informal Question and Answer Period "Around the Cracker Barrel."**

SPEAKERS

R. Thomas Lay

R. Thomas Lay assumed his role as General Counsel of the Oklahoma Water Resources Board in 1976. He received his BS degree from Oklahoma State University in 1970 and his JD degree from Oklahoma City University School of Law in 1973. Subsequently, Lay served as Assistant Municipal Counselor for the City of Oklahoma City and later was engaged in the private practice of law. He has served as Assistant Attorney General and is a member of the Oklahoma State, Oklahoma County and American Bar Associations.
Lay's present duties involve him in all major aspects of Oklahoma water law.

Joan M. Kovalic

In addition to leadership of ICWP, Kovalic is an associate of the Washington, D.C. law firm of Taft, Stettinius and Hollister, serving as counsel on environmental, water quality and water resources matters. Kovalic earlier had served as deputy director of EPA's Office of Water Program Operations, during which time she directed the multi-billion dollar grant program for the construction of municipal wastewater facilities and developed legislation including Clean Water Act amendments of 1981.
Kovalic holds a B.A. in social relations and an M.S. in public administration from Carnegie-Mellon University, a J.D. degree from George Washington University Law School and attended seminars at Harvard University and the Brookings Institute. She is a member of the American Bar Association, Pennsylvania Bar Association, District of Columbia Bar Association, U.S. District Court and U.S. Court of Appeals for the District of Columbia.

Robert A. Olson

Prior to his appointment to Acting Commissioner, Robert A. Olson was Assistant Commissioner—Planning and Operations. He managed the Boulder City, Nevada, area of the Department of Energy's Western Area Power Administration and directed WAPA's power activities in the southwest, including the marketing of power from Hoover, Davis, Parker and Glen Canyon Dams on the Colorado River. He is an electrical engineer, a graduate of South Dakota State University and an associate of the Bureau of Reclamation since 1963.

James R. Nelson

Nelson joined the faculty of Oklahoma State University in 1975 from a previous position on the faculty of the University of Idaho. He holds BS and MS degrees from Texas Technical University and a PhD degree from Oklahoma State University. Nelson has worked in rural development with emphasis on the development of land and water resources and the economics of rural community services. He has authored more than 100 papers on rural development and agricultural economics.

Michael C. Turpen

Michael C. Turpen was elected Attorney General in 1982, having served previously as Muskogee County District Attorney, Muskogee County Chief Prosecutor and First Assistant District Attorney. He is a graduate of the University of Tulsa and the TU College of Law. In 1975 Turpen was named the Outstanding Young Lawyer of the Year by the Oklahoma Bar Association.
He has served as adjunct professor at Northeastern State University, Connors State College and Oral Roberts University College of Law, and is the recipient of many awards including the 1981 Maurice Merrill Golden Quill Award for his contribution of the outstanding article of the year to the Oklahoma Bar Journal.

Looking Back as We Plan Ahead

Sixth Annual
GOVERNOR'S WATER CONFERENCE
Hilton Inn West, Oklahoma City

Early Bird Reception
December 3, 1985
6:30-7:30 p.m.
Gazebo, Hilton Inn West

AGENDA FOR THE CONFERENCE

December 4, 1985

8 a.m.
Registration, Coffee

9:00
Welcome — Gerald E. Borelli, Chairman, Oklahoma Water Resources Board

9:10
Edmond High School Show Choir
Act II — Terry Attebery, Director

9:30
Keynote — The Honorable George Nigh, Governor

10:00
Coffee Break

10:20
National Water Policy
Lt. Gen. John W. Morris (USA Ret)
President, J.W. Morris, Ltd.

10:50
Dam Safety — Who is Responsible?
Slide Show Prepared by the National Association of Conservation Districts

11:20
Perspective from Capitol Hill
Remarks by Members of Oklahoma Congressional Delegation

12:15
Luncheon Program
Presentation of Awards, Remarks Gov. Nigh

The Nation's Water Quality
Lawrence J. Jensen, Assistant Administrator Designate
Office of Water, U.S. EPA

2:00
Is Cost-Sharing Leaving America's Infrastructure High and Dry?
Debate by Brian Robison, Chris Man
Heritage Hall Upper School
Glenda Ferguson, Coach

3:00
Ground Water Management
A. Wayne Wyatt, Manager, High Plains Water Conservation District No. 1

3:30
Break

3:45
Oklahoma's Reach to the Clouds
Weather Modification Slide Show Prepared by the Oklahoma Water Resources Board

4:05
Is Chloride Control in Oklahoma's Future?
Glenn Sullivan, P.E.
The Benham Group

4:30
Closing Remarks, Adjournment

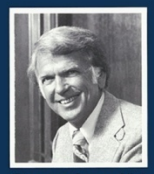
4:30-5:30
Cracker Barrel Session — Your opportunity to meet speakers, have your questions answered and visit around the cracker barrel.

Sixth Annual
GOVERNOR'S WATER CONFERENCE

DECEMBER 4, 1985

CONFERENCE SPEAKERS

Lawrence J. Jenson


Governor George Nigh

John W. (Jack) Morris

A. Wayne Wyatt

1985 Oklahoma Water Pioneers

V. Ray Trent
Leonard A. Solomon
Marvin Scherler
P. Ward Perryman
Forrest Nelson
L.L. (Red) Males
Glade R. Kirkpatrick
Sen. Robert S. Kerr
Nolen J. Fuqua
Ferdie J. Deering
Bemice N. Crockett
Francis J. Borelli
David R. Strickland
Harold B. Scoggins
Frank Raab
Harold Norris
Donald 0. McBride
Richard C. Longmire
Robert S. Kerr Jr.
Newton R. Graham
L.B. (Ed) Edinger
Jacques Cunningham
Dr. Lloyd E. Church

Governor George Nigh

WATER: THE LIFEBLOOD OF ECONOMIC DEVELOPMENT

Seventh Annual

GOVERNOR'S WATER CONFERENCE

Lincoln Plaza, Oklahoma City
October 28, 1986

Early Bird Reception
October 27, 1986
6:30–7:30 p.m.
Senate Room, Lincoln Plaza

AGENDA

October 28, 1986
Gold Crown Room

8 a.m. Registration, Coffee

9:00 Welcome—Introductory Remarks
Gerald E. Borelli, Chairman
Oklahoma Water Resources Board

9:20 Federal Water Policy—What's in it for Oklahoma? Robert K. Dawson, Assistant Secretary of the Army for Civil Works

9:40 What's in the Bureau's Future?
C. Dale Duvall, Commissioner, Bureau of Reclamation

10:00 Break

10:20 Remarks—Congressional Delegation
The Honorable Don Nickles
The Honorable Dave McCurdy
The Honorable James R. Jones
The Honorable Mike Synar

11:20 Weak Infrastructure: Down the Drain with Economic Recovery
Dr. Francis Tuttle, Oklahoma Secretary of Commerce

11:40 How Much Quality Can We Afford?
John M. (Jack) Campbell,
Deputy Asst. Administrator
for Policy, Planning and Evaluation, EPA

12:15 Luncheon Program—Stars Room

Introductions, Special Award
Robert S. Kerr, Jr., OWRB

Remarks— Water Pioneer Awards
Governor Nigh

Water and a Firmer Financial Future
The Honorable Henry Bellmon
David L. Walters

2:30 Program Resumes in Gold Crown Room
Edmond High School Show Choir
Act II, Terry Attebery, Director

2:50 Administration Water Policy—Help or Hindrance? Joseph Haas, Associate Chief, USDA Soil Conservation Service

3:10 Cost-Sharing and User Fees—Another View Joseph Farrell, President, American Waterways Operators, Inc.

3:30 Adjournment—Mr. Borelli

Conference Speakers

Robert K. Dawson

C. Dale Duvall

Joseph Farrell

Dr. Francis Tuttle

John M. (Jack) Campbell

1986 Oklahoma Water Pioneers

Col. Francis J. Wilson
George W. Reid
James "Buster" Hight
Lt. Gov. Spencer Bernard
A. A. Sewell
James H. Irwin
Marvin T. Edmison
Clarence Base
Orville B. Saunders
W.R. Holway
Early R. Cass

Agenda

8 a.m. **Registration, Coffee**

9:00 **Welcome**
Gerald E. Borelli, Chairman
Oklahoma Water Resources Board

Introductory Remarks
Glenn Sullivan, Secretary
Dept. of Natural Resources
Conference Chairman

9:20 **Clean Water Act Update**
Robert E. Layton Jr.
Administrator, Region VI, EPA

9:40 **A New Direction for the Bureau**
Joe D. Hall, Deputy Commissioner
Bureau of Reclamation

10:00 **Coffee Break**

10:20 **The New Water Resources Development Act**
Col. Frank M. Patete
District Engineer, Tulsa District,
U.S. Army Corps of Engineers

10:40 **Outlook for Navigation**
Harry N. Cook, President
National Waterways Conference

11:00 **Remarks**
Congressional Delegation

12 Noon **Luncheon Program**

Introductions—Mr. Sullivan
Address, Presentation of Water Pioneer Awards
Governor Henry Bellmon

2:00 **Tulsa's Stormwater Management Strategies**
Stan Williams, Director, Dept. of Stormwater Management

2:30 **Water Magazine—a Panel Discussing Current Issues**
Moderator: Mr. Sullivan

Panelists:
Charles Huddleston, Attorney
Franco-American/Water Rights

Robert Johnson
Chief Staff Officer, NRWA
Is the Government Selling Rural Water Short?

Marshall Hawkins
Financial Consultant
Water Development Financing

R. Thomas Lay, Attorney
Ute Reservoir Water Rights

Myron Knudson, Director, Water Mgmt. Div., EPA Region VI
Matador Oil Co./Oklahoma Water Quality Standards

3:40 **Adjournment**—Mr. Sullivan

Water- A New Era

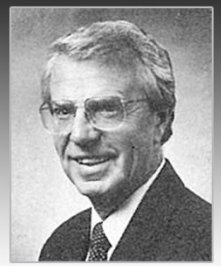
The Governor's Water Conference

Eighth Annual Governor's Water Conference

December 16, 1987

Speakers

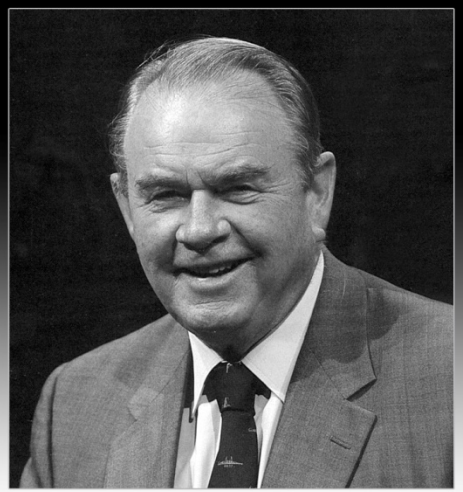
Robert E. Layton, Jr.



Joe D. Hall, P.E.

Harry N. Cook

Col. Frank M. Patete



Governor Henry Bellmon

"Water Quality— Balancing the Interests"

Agenda

8 a.m. **Registration, Coffee**

8:30 **Welcome**
Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

Federal Agencies' Contributions to Water Quality

8:45 Brig. Gen. Robert C. Lee
Commander, Southwestern Division
U.S. Army Corps of Engineers

9:05 Billy Martin, Director
Great Plains Region
Bureau of Reclamation

9:25 Joseph D. Winkle
Deputy Administrator, Region 6
Environmental Protection Agency

9:45 Charles R. Burchett, District Chief
U.S. Geological Survey

10:05 **Coffee Break**

10:25 **Overview of Groundwater Quality**
Marian Mlay, Director
Office of Groundwater Protection
Office of Water
EPA, Washington, D.C.

10:45 **Panel**
Costs and Benefits of Clean Water
Terry Childers, City Manager
City of Oklahoma City

James P. Odendahl, Manager
Environmental and Regulatory Affairs
Weyerhaeuser Company

James W. Bennett, Executive Director
Oklahoma Wildlife Federation

Ed Long, Agribusinessman

11:45 **The Washington Perspective**
Oklahoma Congressional Delegation

Representative Wes Watkins
Senator Don Nickles

Invited:
Representative Mike Synar
Representative James Inhofe
Representative Dave McCurdy
Representative Mickey Edwards

12:15 **Luncheon Program**

Remarks— Mr. Kerr
Glenn Sullivan, Secretary
Department of Natural Resources

Address – Governor Henry Bellmon

Legislative Accomplishments Prospects for the 42nd Session

Sen. Ray Giles, Chairman
Senate Natural Resources Committee

Sen. Ben Brown, Chairman
Natural Resources & Regulatory Services Subcommittee, Comm. on Appropriations

Rep. Cal Hobson, Chairman
House Natural Resources Committee

Rep. Glen D. Johnson, Chairman
Committee on Appropriations and Budget

Presentation of Water Pioneer Awards

Adjournment—Mr. Kerr

Agenda

8 a.m. **Registration, Coffee**

8:30 **Welcome**
Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

8:45 **Keynote**
Dennis Underwood
Commissioner (Designate)
Bureau of Reclamation

9:05 **Federal Activities in the State and Region**

Dan Mauldin
Deputy Director of Civil Works
U.S. Army Corps of Engineers

9:25 Robert E. Layton, Jr.
Administrator, Region VI
Environmental Protection Agency

9:45 Gary Margheim
Associate Deputy Chief for Progra
USDA Soil Conservation Service

10:05 John R. George
Assistant Regional Hydrologist
U.S. Geological Survey

10:25 **Coffee Break**

10:40 **Update on the Governor's Environmental Concerns Cour**
Ross O. Swimmer
Council Coordinator

11 a.m. **Are Wetlands Worth the Cost?**
Michael Spear, Panel Moderator
Regional Director, U.S. Fish & Wildlife Service

Panelists:

Ken McFall, President
Oklahoma Farm Bureau

Russell Rhoades, Director
Environmental Services
Region VI, U.S. EPA

Michael Luzier, Director
Environmental Regulations
National Assn. of Home Builders

Donald McCrory, Port Director
Memphis/Shelby County Port Commission

Barry Rought, Chief of Planning
Southwest Division, U.S. Army Corps of Engineers

The Tenth Annual Oklahoma Water Conference

December 13, 1989
Marriott Hotel
3233 Northwest Expressway
Oklahoma City

Oklahoma Water - From Dust Bowl to Wetlands

12 noon **The Washington Perspective**
*Congressional Delegation

Sen. David Boren
Sen. Don Nickles
Rep. Wes Watkins
Rep. Glenn English
Rep. Dave McCurdy
Rep. Mickey Edwards
Rep. James Inhofe
Rep. Mike Synar

*contingent upon Congressional recess date

12:30 **Luncheon Program**

Introductions and Remarks
Mr. Kerr

Prospects for Statewide Water Development Revolving Fund
Rep. Cal Hobson, Chairman
House Budget and Appropriations Committee

Sen. Ben Brown, Chairman
Senate Natural Resources and Regulatory Services Subcommittee of the Appropriations and Budget Committee

Gubernatorial Address
Governor Henry Bellmon

Presentation of Oklahoma Water Pioneer Awards
Glenn Sullivan, Secretary
Department of Natural Resources

Adjournment—Mr. Kerr

Eleventh Annual

OKLAHOMA WATER CONFERENCE

December 5,1990
Marriott Hotel
Oklahoma City

Drowning In The High Cost Of Water

Drowning in the High Cost of Water

A strategy conference to cope with the ever increasing costs of providing water to the public. The issue is multi-faceted: the reduction in federal funds, increased cost-sharing and user fees and compliance costs of new EPA regulations.

Agenda

8 a.m. **Registration, Coffee**

8:30 **Welcome**—Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

8:40 **Keynote**
Drowning in the High Cost of Water
E. Donald Elliott, General Counsel
Environmental Protection Agency

9:00 **Managing Our Water Resources**
Maj. Gen. Patrick J. Kelly
Director of Civil Works
U.S. Army Corps of Engineers

9:20 Joe D. Hall, Deputy Commissioner
Bureau of Reclamation

9:40 **Coffee Break**

9:55 **Panel—Increased Costs . . . Where's the Money to Come From?**

Moderator:
James R. Barnett, Executive Director
Oklahoma Water Resources Board

Panelists:

Jack Brown, Chairman
Tulsa Metropolitan Utility Authority

Henry Lamb, Executive Vice-President
Land Improvement Contractors of America

Larry Wornom, Director
Lincoln County Conservation District

Ernie Fawcett, President
National Rural Water Association

Wm. Don Kiser, Attorney
Fagin, Brown, Bush, Tinney & Kiser

11:15 **The Washington Perspective**
Sen. Don Nickles
Rep. Glenn English
Rep. Mickey Edwards
Rep. James Inhofe
Rep. Mike Synar
Rep. Wes Watkins

Noon **Luncheon Program**

Introductions and Remarks—Mr. Kerr

Water Funding Prospects in the 43rd Legislature
Sen. Darryl F. Roberts
Senate Majority Leader

Rep. Glen Johnson, Speaker-Designate
House of Representatives

Oklahoma Water Pioneer Awards
Governor Bellmon
Glenn Sullivan, Secretary
Department of Natural Resources

Address— The Governor-Elect

Adjournment—Mr. Kerr

Twelfth Annual Governor's Water Conference

December 18, 1991
Marriott Hotel
Oklahoma City

Groundwater Oklahoma's Buried Treasure

"How well will we manage it?"

Morning Agenda

8 a.m.
Registration, Coffee

8:30
Welcome
Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

8:45
Keynote—New Respect for an Old Resource
Ramona Trovato, Director
Groundwater Protection Division
U.S. Environmental Protection Agency

9:10
Panel—Defining the Problems
Moderator:
Kathy Peter, District Chief
U.S. Geological Survey

Panelists:
David G. Boyer, Hydrogeologist
K. W. Brown Environmental Services
College Station, Texas

Kathy McNally, Director of National Affairs
Oklahoma Farm Bureau

Phil Brown, Chief
Community and Business Programs
Farmers Home Administration

10:10
Coffee Break

10:30
Panel—Protecting a Fragile Resource

Moderator:
Glenn Sullivan, Engineer
Sullivan & Associates

Panelists:
Dr. Larry W. Canter, Director
Environmental & Groundwater Institute
University of Oklahoma

David Pope, Chief Engineer
Kansas Division of Water Resources

Blaine Reely, Director of Public Works
City of Enid

11:30
The Washington Perspective
Rep. Mike Synar

Noon
Luncheon Program

Introductions, Remarks
Mr. Kerr

Address
Sen. Don Nickles

Observations from the Oklahoma Legislature
Sen. Ray Giles, Chairman
Senate Committee on Natural Resources
Rep. Larry Rice, Chairman
House Committee on Energy,
Environment and Natural Resources

Oklahoma Water Pioneer Awards
Patty Eaton, Executive Director
Oklahoma Water Resources Board

Adjournment—Mr. Kerr

The 1991 Oklahoma Water Pioneers

The Oklahoma Water Pioneer Awards were initiated in 1985 to recognize those men and women who have made significant contributions in the management, planning, development and conservation of Oklahoma's water resources.

Their vision inspired those less daring; their strength of conviction upheld us; their devotion to progress for all Oklahomans provided abundant supplies of good water for our homes, cities, farms and industries.

Gov. Raymond Gary — **Ed Edmondson**

Heber Finch — **Jack Grimmett**

November 18, 1992
Marriott Hotel
3233 Northwest Expressway
Oklahoma City

Agenda

8 a.m. **Registration, Coffee**

8:30 **Welcome**
Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

8:45 **The Future of the Clean Water Act and The Safe Drinking Water Act**
Ben Lesser, Special Assistant to the Assistant Administrator for Water, U.S. Environmental Protection Agency

9:10 **The Consequences of "Can't"**
Eric J. Groves, Attorney
Groves & Tague, Oklahoma City

9:30 **The Best Water in the Nation**
Governor David L. Walters

9:50 **Coffee Break**

10:05 **Drinking Water—the Widening Gap Between Needs and Resources**
Steven L. Elstein, Assistant Director, Water Quality Issues
U.S. General Accounting Office

10:25 **Regional Systems—The Dallas Success Story**
Mike Marcotte, Director
Dallas Water Utilities

10:45 **Yes We Can! Financing Options**
Robert M. Cochran
Executive Vice-President
Stifel, Nicolaus & Co., Inc.

11:05 **How Can Small Systems Comply?**
Walter E. Hill
Deputy Under Secretary for Small Community and Rural Development
U.S. Department of Agriculture

11:25 **Clean Water Act Impacts on Agriculture**
John Baker, Agriculture Advisor to the Administrator—EPA

11:45 **Oklahoma Water Gazette**
10-Minute News Updates

Moderator: Glen Cheatham, Jr.
Executive Vice-President
Arkansas Basin Development Assoc.

HB 2227—the Department of Environmental Quality (DEQ)
Sen. Cal Hobson, Co-Chair
Joint Legislative Environmental Task Force

Navigation—Montgomery Point L&D
Bob Portiss, Director
Port of Catoosa

Water Research at the Universities
Dr. Tom Collins, Director
Oklahoma State University Center for Water Research

12:30 **Luncheon Program**

Introductions and Remarks
Mr. Kerr

Remarks
Congressman Mike Synar

Other Members of the Congressional Delegation

Oklahoma Legislature

Sen. Kevin Easley
Rep. Larry Rice

Oklahoma Water Pioneer Awards
Patty Eaton, Executive Director
Oklahoma Water Resources Board

Adjournment
Mr. Kerr

Accommodations

Guestrooms are available at a special Conference rate of $70 per night, single or double. Please make reservations by November 9 by calling the Marriott Hotel at (405) 842-6633.

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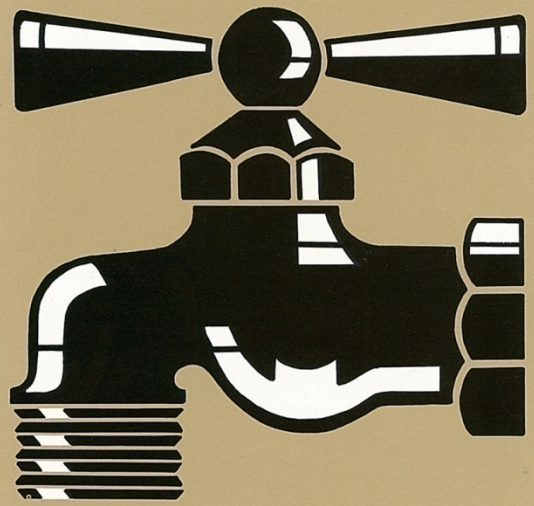


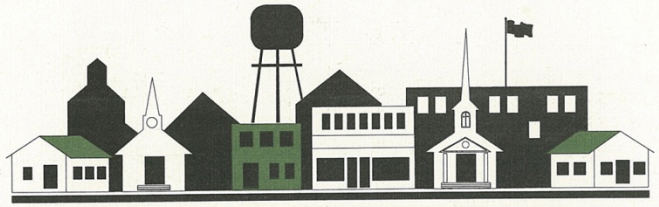
HOW CLEAN?

HOW COSTLY?

HOW CAN WE?

THIRTEENTH ANNUAL GOVERNOR'S WATER CONFERENCE

Infrastructures Under Pressure



MANDATES WITHOUT MONEY

The Fourteenth Annual Governor's Water Conference - November 17, 1993

November 17, 1993

Marriott Hotel
3233 Northwest Expressway
Oklahoma City, OK

AGENDA

8:00 a.m. **Registration, Coffee**

8:30 **Introductory Remarks**
Robert S. Kerr, Jr., Chairman
Oklahoma Water Resources Board

Welcome
Governor David Walters

9:00 *Federal Mandates: One Size Fits All?*
Mayor Susan Savage, City of Tulsa

9:25 *Communities in Crisis*
Ann Cole
Small Community Coordinator
U.S. Environmental Protection Agency
Office of Regional Operations

9:50 **Coffee Break**

10:15 **Panel:** ***Meeting the Mandates with Innovation***

Moderator: Connie Irby
Deputy Executive Director
Oklahoma Department of Commerce

Panelists:
Lonnie L. Farmer, Member, OWRB
Regional Rural Water Systems

Wayne Hill, City Manager, Guymon
New Ways in Wastewater Treatment

Lee Chew, County Commissioner
Washington County
Sales Tax Can Finance Infrastructure

11:15 **The View from Capitol Hill**
Oklahoma Congressional Delegation

11:45 **Luncheon Program**

Introductions and Remarks
Mr. Kerr

When EPA Came to Buffalo Gap
Robert E. Roberts, Secretary
South Dakota Department
of Environment and Natural Resources

Remarks
Members of the Oklahoma Legislature

Oklahoma Water Pioneer Awards
Duane A. Smith, Assistant Director
OWRB

1:45 **Oklahoma Water Gazette**
10-Minute News Updates

Moderator: Mike Henson
Member, OWRB

Consequences of Flooding
Jack Page, Manager
Development Services
City of Tulsa PWA

Navigation Fuel Taxes
Bob Portiss, Director
Tulsa Port of Catoosa

Water Rights: Impact of the Franco Decision
Diane Pedicord, General Counsel
Oklahoma Municipal League

DEQ: The First Half-Year
Roger Miner, Chairman
Oklahoma Environmental Quality Board

Questions and Answers

2:45 **Adjournment**
Mr. Kerr

November 2, 1994

Marriott Hotel
3233 Northwest Expressway
Oklahoma City

Fifteenth Annual
Governor's Water Conference

Planning Today for a Secure Tomorrow

Agenda

8:00 a.m. **Registration, Coffee**

8:30 **Introductory Remarks**
J. Ross Kirtley, Chairman
Oklahoma Water Resources Board

8:40 **Water Resources: Strategies to Carry us Forward**
Senator Gene Stipe
Oklahoma Senate

9:00 **Oklahoma Comprehensive Water Plan**
Patricia P. Eaton
Executive Director, Oklahoma Water Resources Board

9:20 **Sharing the Challenge: Floodplain Management into the 21st Century**
Raymond "Buddy" Young
Region VI Administrator, Federal Emergency Management Agency

9:45 **Coffee, Networking, Exhibits**

10:10 **Panel - Water Planning Issues on the Horizon**
Moderator: Kathy D. Peter
District Chief, U. S. Geological Survey

Agribusiness and Environmental Concerns
Drew Kirshen
Professor of Law, College of Law
University of Oklahoma

Indian Water Rights: The Tribal Perspective
Phillip D. Lujan
Associate Professor, Department of Communication, University of Oklahoma

Neosho River Basin: Multistate Planning and Multipurpose Uses
Col. Otis Williams
District Engineer, Tulsa District
U.S. Army Corps of Engineers

Oklahoma's New Wetlands Strategy
Mason Mungle
Executive Director, Oklahoma Conservation Commission

11:15 **Questions and Answers**

11:35 **The View from Capitol Hill**
Oklahoma Congressional Delegation

12:30 **Luncheon Program**

Introductions and Remarks
Mr. Kirtley

Oklahoma Water Pioneer Awards
Ms. Eaton/Mr. Kirtley

Legislative Committee Updates

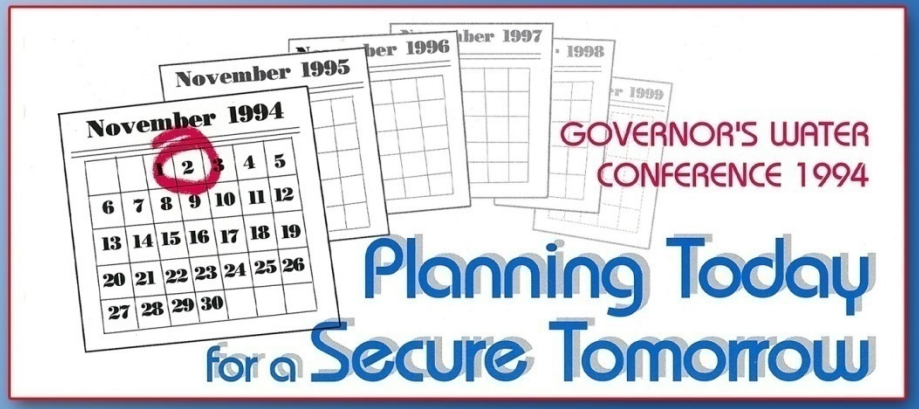
Joint Committee on Financing Environment, Infrastructure for Economic Development
Representative Randy Beutler, Co-Chairman

Kiamichi River Basin Water Supply Study
Senator Jack Bell, Chairman

Introduction of Gubernatorial Candidates
Patricia Acebo, President
League of Women Voters of Oklahoma

Lt. Governor Jack Mildren
Wes Watkins
Frank Keating

3:00 **Adjournment**
Mr. Kirtley



November 15, 1995

Sixteenth Annual
Governor's Water Conference

The Shifting Federal Role: Oklahoma's Opportunity to Redefine Water Policies

8:00 Registration

8:30 Welcome
J. Ross Kirtley, Chairman
Oklahoma Water Resources Board

8:45 Budgets in Crisis: If They Hand You a Lemon, Make Lemonade!
D. Craig Bell, Executive Director
Western States Water Council

9:05 Panel - The Downsizing Dilemma
Moderator: Christopher J. Brescia
Executive Director, Midwest Area River Coalition - MARC 2000

Col. Timothy L. Sanford
Commander, Tulsa District
U.S. Army Corps of Engineers

A. Stanley Meiburg, Deputy Regional Administrator, U. S. Environmental Protection Agency, Region 6

Charles Rainbolt, State Director
Rural Economic
& Community Development

Elizabeth Harrison, Area Manager
Bureau of Reclamation

10:20 Questions and Answers

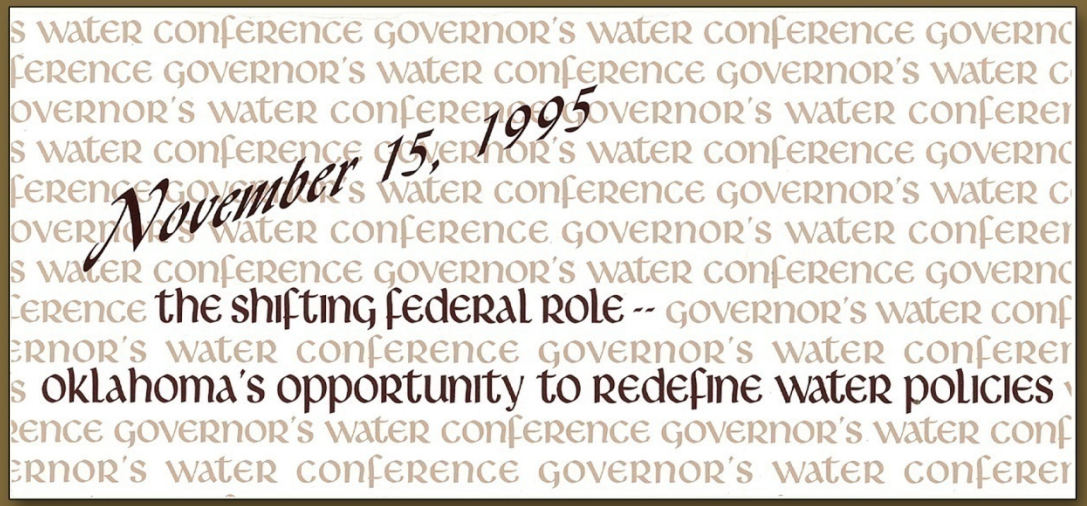
10:25 Coffee, Networking, Exhibits

10:45 The Honorable Frank Keating
Governor of Oklahoma

11:05 Panel - New Directions, New Destinies
Moderator: Dick Seybolt, Member
Oklahoma Water Resources Board

Bill Moyer, Executive Director
Oklahoma Municipal League

Rob Johnson, Chief Executive Officer
National Rural Water Association



Ronn Cupp, Vice-President, Oklahoma
State Chamber of Commerce & Industry

Jarold Callahan, Executive Director
Oklahoma Cattlemen's Association

Scott Robinson, President
Arkansas Basin Development Association

12:20 Questions and Answers

12:30 Luncheon Program

Introductions, Remarks
Mr. Kirtley

Oklahoma Congressional Delegation
Questions & Answers

Oklahoma Comprehensive Water Plan
Gary L. Sherrer, Executive Director
Oklahoma Water Resources Board

Update from the Oklahoma Legislature
Speaker Glen Johnson
Representative Mike Mass
Senator Robert M. Kerr

Oklahoma Water Pioneer Awards
Mr. Kirtley, Mr. Sherrer

3:00 Adjournment - Mr. Kirtley

1995 Oklahoma Water Pioneer Awards

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's water resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns and industries.

- Norman N. Durham
- Billy Ray Wilson
- Oscar Hughes
- Paul E. Thornbrugh

Seventeenth Annual Governor's Water Conference

November 20, 1996
Marriott Hotel - Oklahoma City

"Working Together in Managing 21st Century Water Resources"

AGENDA

8:00 *Registration*

8:30 *Welcome*
J. Ross Kirtley, Chairman
Oklahoma Water Resources Board

8:45 *Forging Unity from Diversity on Capitol Hill*
J.D. Williams, Washington, D.C. Attorney
Specialist in Legal and Political Affairs

9:10 *Panel - Partners in Infrastructure Financing*
Moderator:
Gary L. Sherrer, Executive Director
Oklahoma Water Resources Board

Charles P. Rainbolt, State Director
Rural Development

James G. Fulmer, President, CEO
Oklahoma Finance Authorities

Joe S. Freeman, Chief
Financial Assistance Division
Oklahoma Water Resources Board

Leo Presley, Director
Oklahoma Department of Commerce

10:15 *Coffee, Networking, Exhibits*

10:35 *Partnering with the States in Regulation*
William B. Hathaway, Director
Water Quality Protection Division
Region 6, U.S. EPA

11:00 *Teamwork in Tempering Drought*
Dr. Donald A. Wilhite, Director
National Drought Mitigation Center
University of Nebraska - Lincoln

Working Together in Managing 21st Century Water Resources

Seventeenth Annual Governor's Water Conference

11:25 Cloud Seeding as a Water Management Tool

Patrick H. Sweeney, President
Weather Modification, Inc., Fargo, N.D.

11:50 Luncheon Program
Introductions - Mr. Kirtley

The Honorable Frank Keating
Governor of Oklahoma

The View from the State Capitol
Senator Robert M. Kerr
Chairman, Senate Rules Committee

Speaker-Elect Loyd L. Benson
Oklahoma House of Representatives

Representative Mike Mass, Chairman
Subcommittee on Natural Resources,
Appropriations and Budget Committee

The View From Capitol Hill
Senator Don Nickles
Other Members of the
Congressional Delegation Invited

Oklahoma Water Pioneer Awards

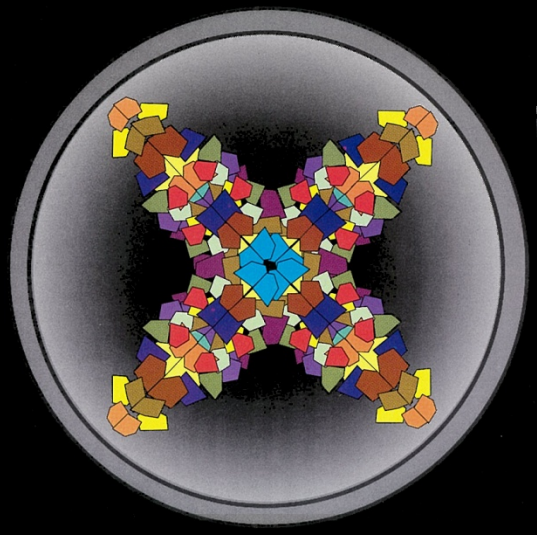
2:30 Adjournment - Mr. Kirtley

1996 Oklahoma Pioneer Awards

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's water resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms and industries.

Senator Henry Bellmon
James M. Hewgley, Jr.
Ladd Hitch
Phillip Klutts
Donald R. Vandersypen



OKLAHOMA WATER
A KALEIDOSCOPE OF ISSUES

18th Annual Governor's Water Conference

November 5, 1997
Marriott Hotel - Oklahoma City

AGENDA

8:00 **Registration**

8:30 **Welcome**
J. Ross Kirtley, Chairman
Oklahoma Water Resources Board

8:45 **Native American Water Issues**
Larry EchoHawk
Professor of Law, Brigham Young University

Bob Rabon, General Counsel
Choctaw Nation, Chickasaw Nation

Tim Vollmann, Regional Solicitor
SW Region, U.S. Department of Interior

9:50 **Coffee, Networking, Exhibits**

10:10 **State Agency Issues**
Panel Moderator: Richard Sevenoaks, Member
Oklahoma Water Resources Board

Duane A. Smith, Executive Director
Oklahoma Water Resources Board

Mark S. Coleman, Executive Director
Oklahoma Department of Environmental Quality

Dennis V. Howard, Commissioner
Oklahoma Department of Agriculture

John Hassell, Director, Water Quality Programs
Oklahoma Conservation Commission

11:00 **Can Good Water and Poultry Production Co-Exist?**
M. Susan Savage, Mayor
City of Tulsa

11:20 **Legal and Environmental Issues Affecting Animal Feeding Operations**
Janie Simms Hipp, Attorney
National Agricultural Law and Research Center

11:45 **Interstate Water Gazette**
Moderator
Glen Cheatham, Jr., Executive Vice-President
Arkansas Basin Development Association

Here Comes El Nino
Ken Crawford, State Climatologist
Oklahoma Climate Survey

The Arkansas Shiner Minnow
Jerry Brabander, Field Supervisor
Tulsa Office, U.S. Fish & Wildlife Service

Weather Modification
Patrick H. Sweeney, President
Weather Modification, Inc., Fargo, N.D.

12:30 **Luncheon Program**
Introductions - Mr. Kirtley

Brian Griffin, Secretary of Environment
Chairman, Governor's Animal Waste and
Water Quality Protection Task Force

Legislative Issues

Speaker Loyd L. Benson
Oklahoma House of Representatives

Senator Billy Mickle
Majority Floor Leader, Oklahoma Senate

Senator Bill Gustafson
Senate Minority Leader

Representative Larry Rice
Chairman, House Committee on Energy,
Environment and Natural Resources

Representative Al Sadler
Chairman, Natural Resources Subcommittee
House Appropriations and Budget Committee

Oklahoma Water Pioneer Awards
Duane A. Smith, Executive Director

2:30 Adjournment - Mr. Kirtley

1997 Oklahoma Water Pioneer Awards

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's Water Resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms and industries.

Wayne A. Pettyjohn, Ph.D.
Lonnie L. Farmer
John "Jack" Story, Jr.

AGENDA

9:30 ***Registration, Coffee, Exhibits***

10:00 ***Welcome***
J. Ross Kirtley, Chairman
Oklahoma Water Resources Board

Welcome to Muskogee
Jim Bushnell, Mayor

10:15 ***National Outlook for Water Development***
Dr. Joseph W. Westphal
Assistant Secretary of the Army
for Civil Works

10:40 ***The Corps' Mission in Oklahoma***
Col. Leonardo V. Flor, District Engineer
Tulsa District, U.S. Army Corps of
Engineers

11:00 ***State of the State's Environment***
Duane A. Smith, Executive Director
Oklahoma Water Resources Board

Dennis V. Howard, Secretary of Agriculture

Mike Thralls, Executive Director
Oklahoma Conservation Commission

Jon L. Craig, Director, Water Quality Division
Oklahoma Department of Environmental
Quality

12:00 ***Luncheon Program***

Musical Interlude
Parkview School Jazz Band
Jim Gilmartin, Director

Introductions - Mr. Kirtley

Legislative Update
Sen. Ben Robinson, Sen. Rick Littlefield
Rep. Bill Settle, Rep. Larry Adair

The Honorable Frank Keating
Governor of Oklahoma

Oklahoma Water Pioneer Awards
Mr. Smith

1:40 ***Insight to Oklahoma Water Law***
Drew Edmondson, Attorney General
State of Oklahoma

2:00 ***Native American Issues***
Chris Kenney, Native American Coordinator
U.S. Department of Interior, Bureau of
Reclamation

Joe Byrd, Principal Chief
Cherokee Nation

Bill Anoatubby, Governor
Chickasaw Nation

2:45 ***Is Drought Our Destiny?***
Albert Ashwood, Director
Oklahoma Department of Emergency
Management

Dr. Kenneth C. Crawford, Director
Oklahoma Climatological Survey

3:10 ***Environmental Initiatives for Oklahoma***
Brian C. Griffin, Secretary of Environment

Patsy Bragg, Vice-Chair,
Tulsa Metropolitan Utility Authority

3:40 ***A Delicate Balance:***
Environment and Economy
Gregg Cooke, Region 6 Administrator
U.S. Environmental Protection Agency

4:00 ***Adjournment*** - Mr. Kirtley

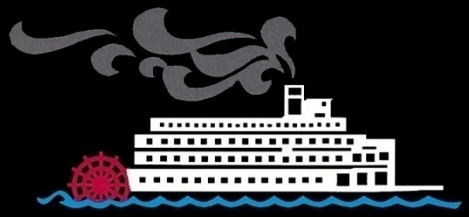
1998 Oklahoma Water Pioneer Awards

Bill Secrest
Robert W. "Bob" Portiss

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's water resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms and industries.

Rollin' on the River
Toward Changin' Times



19th Annual
Governor's Water Conference

Muskogee, Oklahoma
September 29-30, 1998

November 17, 1999

Agenda

8 a.m. Registration

8:30 Welcome
Lonnie Farmer, Chairman
Oklahoma Water Resources Board

8:35 Lieutenant Governor Mary Fallin

8:50 Water Quality Issues 2000 and Beyond
Carolyn S. Richardson
Director of Environmental Advocacy
California Farm Bureau Federation

Gregg Cooke
Administrator, Region 6
U.S. Environmental Protection Agency

Patsy Bragg, Chair
Tulsa Metropolitan Utility Authority

9:45 Water for Oklahoma 2000
PANEL
Chuck Thomas, Member
Stillwater City Commission

Gene Whatley , Executive Director
Oklahoma Rural Water Association

Zach D. Taylor, Executive Director
Association of Central Oklahoma Governments

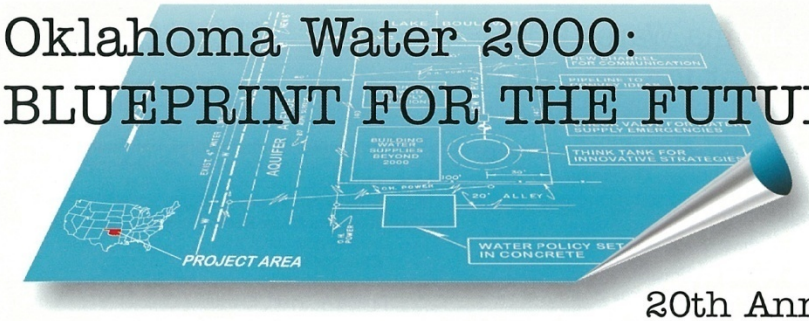
Purcy Walker, Commissioner
Beckham County District 3

10:25 Break - Coffee/Exhibits

10:45 The Federal Agencies Look Ahead
PANEL
Col. Leonardo V. Flor, District Engineer
U.S. Army Corps of Engineers
Tulsa District

Mark F. Becker, Hydrologist
U.S. Geological Survey

Oklahoma Water 2000: BLUEPRINT FOR THE FUTURE



20th Annual Governor's Water Conference

Larry Caldwell, State Conservation Engineer
Natural Resources Conservation Service

Elizabeth Cordova-Harrison, Area Manager
Oklahoma - Texas Area, Bureau of Reclamation

11:30 The Industry Underwrites Hail Suppression
Carroll Fisher, Insurance Commissioner
Oklahoma Insurance Department

11:50 Kiamichi River Basin Plan: Deadline 2/2000
Greg Pyle, Chief
Choctaw Nation

Duane A. Smith, Executive Director
Oklahoma Water Resources Board

12:40 p.m. Luncheon Program

Introductions – Mr. Farmer

Water Pioneer Awards
Mr. Farmer, Mr. Smith

Legislative Outlook – 21st Century
Congressman Ernest Istook
Congressman Frank Lucas
Congressman Wes Watkins
Speaker Loyd Benson, House of Representatives
Representative Randall Erwin
Representative Larry Rice
Senator Mark Snyder
Senator Rick Littlefield

Luncheon Address
Larry Watkins, General Manager
Electric Cooperatives of Oklahoma

Grant Presentation 2000 Ceremony
Rural Economic Action Plan (REAP)
Representative Mike Mass
Mr. Smith

2:30 Adjournment
Mr. Farmer

1999 Oklahoma Water Pioneer Awards

Sidney D. Williams
James Eddie Phillips
Jimmie Pigg

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's water resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms and industries.

OKLAHOMA WATER

Shaping The Future

November 15, 2000

Program

21st Annual GOVERNOR'S WATER CONFERENCE

Myriad Convention Center
Oklahoma City, Oklahoma

8 a.m. **Registration**
2nd Level – Myriad Convention Center

8:30 **Welcome**
Lonnie Farmer, Chairman
Oklahoma Water Resources Board

8:40 Governor Frank Keating

9:00 **Water for Oklahoma City's Future**
Mayor Kirk Humphreys, Oklahoma City

9:20 **Water for Oklahoma: The Kiamichi Basin Plan**
Brian C. Griffin, Secretary of Environment

9:40 **The Waste by Pollution Ruling**
Duane A. Smith, Executive Director
Oklahoma Water Resources Board

10:00 **The Importance of Research in Weather Modification Planning**
Dr. Kelvin Droegemeir, Director
Center for Analysis and Prediction of Storms – University of Oklahoma

10:20 **Coffee/Exhibits**

10:40 **The Continuing Development of the McClellan-Kerr Arkansas River Navigation System**
Scott Robinson, Director
Port of Muskogee

11:00 **New Protection for the Nation's Waters**
Gregg Cooke, Administrator, Region 6
U.S. Environmental Protection Agency

11:20 **Endangered Species – The Ultimate Trump Card**
William H. Satterfield, Attorney
Balch & Bingham, Birmingham, AL

12:00 **Luncheon Program**

Gold on Tap – Water in the 21st Century
T. Boone Pickens, President, CEO
Mesa Water, Inc., Dallas, TX

Washington D.C. Outlook

State Legislative Outlook
Senator Billy Mickle
Majority Floor Leader, Oklahoma Senate

Senator Jim Dunlap
Incoming Republican Floor Leader
Oklahoma Senate

Representative Larry Adair
Speaker-Elect
Oklahoma House of Representatives

Representative Randall Erwin
Chairman, Natural Resources Appropriations and Budget Subcommittee
Oklahoma House of Representatives

Others Invited

Rural Economic Action Plan (REAP)
Announcement of 2001 Grant Recipients
Mr. Smith

Oklahoma Water Pioneer Awards
Mr. Farmer, Mr. Smith

2:30 **Adjournment**

2000 Water Pioneers

Michelle (Mike) Henson
James C. Leake
Jim C. Murphy

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the men and women who have made significant contributions in the planning, development, management and conservation of Oklahoma's water resources.

Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms and industries.

Agenda

8:a.m. Registration
2nd Level - Myriad Convention Center

8:30 Welcome
Grady Grandstaff, Chairman, Oklahoma Water Resources Board

8:40 Governor's Address
Frank Keating, Governor of Oklahoma

9:00 State/Tribal Water Compact and Water Marketing Update
Howard Barnett, Governor Keating's Chief of Staff and a representative of the Choctaw and/or Chickasaw Nation

9:30 Thirsting for Power: Potential Impact of New Powerplants on Oklahoma Water Supplies
Ted Coombes, President, Southwest Power Resources Association

9:50 Water Gazette
Terrorism - Protecting Our Water Sources
Albert Ashwood, Director, Oklahoma Department of Civil Emergency Management

Compacting to Protect State Water Rights
Dean Couch, General Counsel, Oklahoma Water Resources Board

Well Drillers Advisory Council
Danny Ewbank, Ewbank Inc. Fairview, Oklahoma

Economic Impact of the McClellan-Kerr Arkansas River Navigation System
Scott Robinson, Director Port of Muskogee

10:20 Coffee/Exhibits

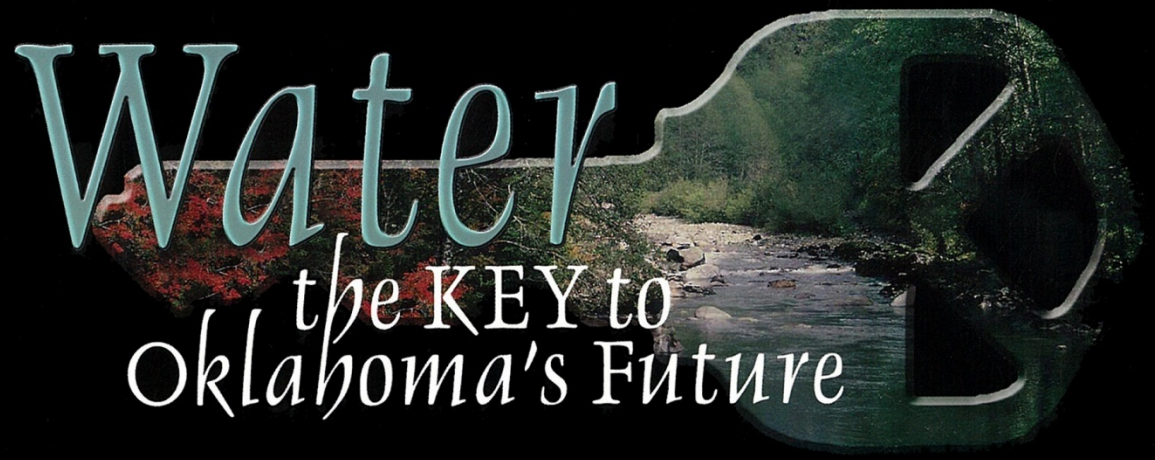
10:40 National Agenda for Water
Roberta (Robbi) Savage, Executive Director, Association of State and Interstate Water Pollution Control Administrators - Washington DC

11:00 Big Plans for Small Systems
Robert Johnson, CEO, National Rural Water Association, Duncan, Oklahoma

11:20 Meeting Oklahoma's Future Water Infrastructure Financing Needs
Gene Rainbolt, Chairman of the Board, BancFirst

22nd Annual Governor's Water Conference

Water the KEY to Oklahoma's Future



November 14, 2001 - Myriad Convention Center - Oklahoma City, Oklahoma

11:40 Oklahoma Comprehensive Water Plan - a New Focus
Duane Smith, Executive Director, Oklahoma Water Resources Board

12:00 Noon - Luncheon Program

The Texas Water Plan, a Regional Approach
Texas State Senator J.E. "Buster" Brown

Washington DC Outlook
Oklahoma Congressional Delegation

State Legislative Outlook
Senator Cal Hobson, Vice Chairman, Senate Appropriations Committee, Oklahoma State Senate

Senator Jim Dunlap, Republican Floor Leader, Oklahoma State Senate

Representative Larry Adair, Speaker, Oklahoma House of Representatives

Rural Economic Action Plan (REAP)
Announcement of 2002 Grant Recipients
Mr. Smith

Oklahoma Water Pioneer Awards
Mr. Grandstaff, Mr. Smith

2:30 Adjournment

2001 Oklahoma Water Pioneer Awards

Robert Johnson
Phillip B. Lorenz
Ken McFall
James H. Norick

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23rd Annual

Oklahoma Governor's Water Conference

Coordinated by the Oklahoma Water Resources Board

October 9, 2002

Adams Mark Hotel & Conference Center
Tulsa, Oklahoma

Celebrating Water

Past Successes/Future Challenges

AGENDA

8 a.m. ***Registration***

8:30 **Welcome**
Grady Grandstaff, Chairman
Oklahoma Water Resources Board

Bill LaFortune, Mayor
City of Tulsa

8:50 **Addressing Interstate Water Quality Issues**
Brian Griffin, Secretary of Environment
State of Oklahoma

9:10 **Celebrating 30 Years of Clean Water**
Allan Stokes, Chief Operations Officer
America's Clean Water Foundation

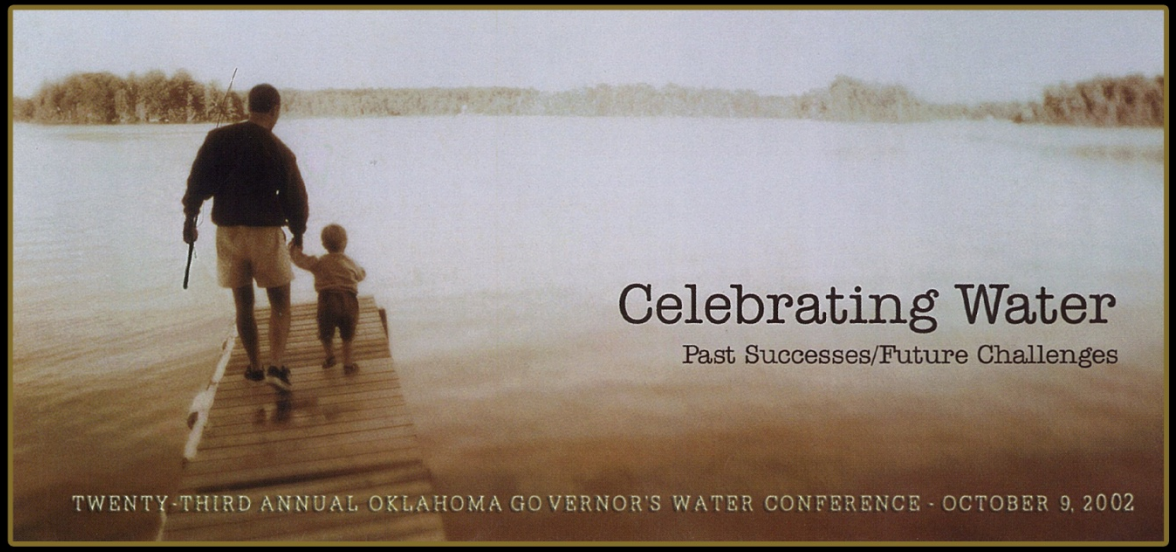
9:30 **Tribal Water Rights and Water Quality Administration**
Taiawagi Helton, Professor
University of Oklahoma College of Law

Lindsay G. Robertson, Associate Professor
University of Oklahoma College of Law

Michael Brophy, Attorney
Ryley, Carlock & Applewhite

10:20 ***Coffee/Exhibits***

10:45 **A Century of Water for the West: The Bureau of Reclamation's Centennial Celebration**
Larry Walkoviak, Manager
OK-TX Area Office, Bureau of Reclamation



11:05 **The Legal Ramifications of Water Transfer**
Drew L. Kershen, Earl Sneed Centennial Professor, University of Oklahoma

Gary Allison, Professor
University of Tulsa College of Law

11:40 **Science for a Changing World**
Kim T. Winton, Oklahoma District Chief
U.S. Geological Survey

Noon ***Luncheon Program***

OK Water Pioneer Awards

State of the State's Water
Duane A. Smith, Executive Director
Oklahoma Water Resources Board

The Outlook from Washington D.C.
Oklahoma's Congressional Delegation

State Legislative Outlook
Sen. Rick Littlefield
Sen. James Dunlap
Rep. M.C. Leist
Rep. Mark Liotta

Oklahoma's Gubernatorial Candidates
Brad Henry
Steve Largent
Gary Richardson

2:30 ***Adjournment***

2002

OKLAHOMA WATER PIONEERS

Frank Condon

Mae Cooper

Murray Williams

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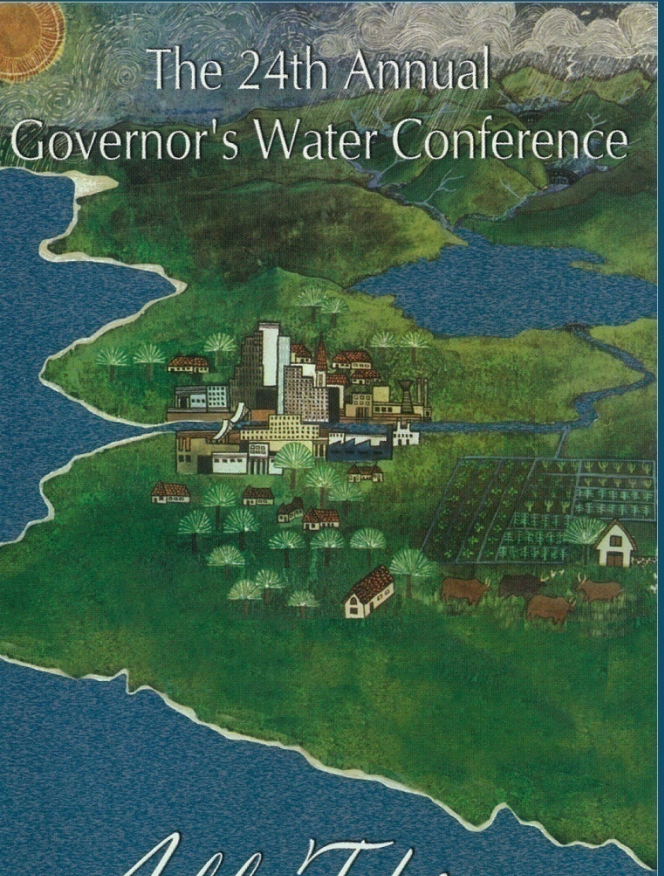
"Their vision in water development inspired those less daring; their strength of conviction upheld us; their commitment to progress for all Oklahomans gave us abundant supplies of good water for our homes, cities, towns, farms, and industries."



The 24th Annual Governor's Water Conference

All Things Water

November 4-5, 2003
Cox Convention Center
Oklahoma City

November 4

Arbuckle Simpson Aquifer Symposium

1:00 Registration

1:30 Welcome and Introductions
Grady Grandstaff, Chairman
Oklahoma Water Resources Board

1:45 Water 2025 Initiative: Preventing Crises and Conflict
John Keys, Commissioner, Bureau of Reclamation

2:05 Can Private Property Rights be Protected Without Strong Regulations?
Gregory Ellis, General Manager
Edwards Aquifer Authority (San Antonio)

2:25 Water Law Issues in Senate Bill 288
Drew L. Kershen, Earl Sneed Centennial Professor
University of Oklahoma

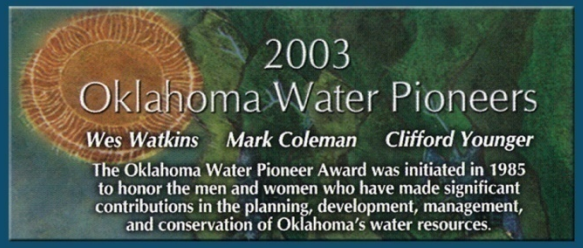
2:45 Coffee Break

3:00 Study Overview and Technical Challenges
Moderator: Duane Smith, OWRB Executive Director
Randall Ross, U.S. Environmental Protection Agency
Noel Osborn, OWRB
Neil Suneson, Oklahoma Geological Survey
Scott Christenson, U.S. Geological Survey

·4:00 Local Water Management Issues
Dick Scalf, Ada Water Resources Board
Jim Crosby, Manager, City of Yukon
Senator Jay Paul Gumm
Representative Susan Winchester

5:00 Adjournment

6:00 Reception



November 5

8:00 Registration

8:30 Welcome and Introductions
Grady Grandstaff, Chairman
Oklahoma Water Resources Board

8:50 Keynote Address
Governor Brad Henry

9:10 State of the State's Water
Duane Smith, Executive Director
Oklahoma Water Resources Board

9:30 Western States Water Issues
Paul Sweeney
NRCS Liaison to Western Governor's Association

9:50 EPA Update
Miguel Flores, Director of Water
EPA Region 6

10:10 Corps of Engineers Activities
Christine Altendorf
Tulsa District, U.S. Army Corps of Engineers

10:30 Coffee Break/Exhibits

10:45 Cabinet Secretary Panel - Water for the Environment, Agriculture, Tourism and Recreation, and Transportation
Miles Tolbert, Secretary of Environment
Terry Peach, Secretary of Agriculture
Kathryn Taylor, Secretary of Commerce & Tourism
Phil Tomlinson, Secretary of Transportation

12:00 Luncheon Program
U.S. Coast Guard Public Service Awards
Oklahoma Water Pioneer Awards
Featured Luncheon Speaker, George Nigh
Water Outlook from Washington DC
Oklahoma Congressional Delegation (invited)
State Legislative Water Perspective
Speaker Larry Adair
Representative Jari Askins
Representative Danny Hilliard
Senator Jay Paul Gumm

OKLAHOMA WATER: A QUALITY OF LIFE

25th Annual Governor's Water Conference

October 19-20, 2004

Tuesday, October 19
A Symposium on Tribal Claims and Water

1:00 Registration

1:30 Welcome & Overview
Duane A. Smith
OWRB Executive Director

Justice Yvonne Kauger
Oklahoma Supreme Court

1:50 Land of Many Cultures: American Indians in Oklahoma
Bob Blackburn, Director
Oklahoma Historical Society

2:10 Coordination of State/Tribal Water Quality Administration
Miles Tolbert
Oklahoma Secretary of the Environment

2:30 Negotiating Indian Water Rights Claims
Susan Cottingham, Director
Montana Reserved Water Rights Compact Commission

2:50 EPA Perspective on Tribal Water Claims
Chuck Sheehan, Regional Counsel
U.S. Environmental Protection Agency

3:10 Break

3:25 Congressional Viewpoint
Ryan Jackson, Counsel
Senate Environment and Public Works Committee

3:45 Town of Taos & Abeyta Water Right Adjudication
Tomas Benavidez, Town Attorney
Taos, New Mexico

4:05 Tribal Perspectives
Chad Smith, Principal Chief
Cherokee Nation

John Berrey, Chairman
Quapaw Tribe

Bill Anoatubby, Governor
Chickasaw Nation

5:05 Resolution of Tribal Water Claims
Lindsay Robertson, Associate Professor
OU College of Law

5:25 Adjournment to Reception

Wednesday, October 20
Governor's Water Conference Program

8:00 Registration

8:30 Welcome and Introductions
Ervin Mitchell, OWRB Chairman

8:35 Video - "Oklahoma Water: A Quality of Life"

9:05 Keynote Address
Lt. Governor Mary Fallin

9:20 Congressional Senate Candidate Forum
Representative Brad Carson
Dr. Tom Coburn

9:50 Water Development Infrastructure Financing
Scott Meacham, Director
Oklahoma Office of State Finance

10:05 Planning for the Future of the Grand River Basin
Kevin Easley, General Manager
Grand River Dam Authority

10:20 Break / Exhibits

10:35 Infrastructure Financing Panel
Moderator: Joe Freeman, OWRB

Ted Lockin, Mayor of Bartlesville
Dennis Krueger, General Manager Kiwash Electric Cooperative
Dr. Joe Taron, Chairman, Pottawatomie Co. Dev. Authority
Chris Cochran, Senior Vice President, Capital West

11:30 Water Magazine
Oklahoma River Development Project
Jim Hasenbeck, Studio Architecture, Oklahoma City

Arkansas River Vision Plan
Kevin Conner, Carter & Burgess, San Antonio, TX

Navigation Update
Scott Robinson, Director, Port of Muskogee

Interstate Compact News
Dick Seybolt, Chairman
Arkansas-Oklahoma Arkansas River Compact Commission

12:15 Luncheon Program

Oklahoma Water Pioneer Awards

State of the State's Water
Duane Smith, OWRB Executive Director
Miles Tolbert, Oklahoma Secretary of the Environment

Water Outlook from Washington D.C.
Oklahoma's Congressional Delegation (invited)

Oklahoma State Legislative Water Perspective
House Speaker-Elect Jari Askins
Representative David Braddock
Senator Johnnie Crutchfield
Senator Jay Paul Gumm

2:30 Adjournment

Coordinated by The Oklahoma Water Resources Board
Duane A. Smith, *Executive Director*

Registration Coordinator: Mary Nell Brueggen

Conference Coordinators: Mike Melton, Mary Schooley, Brian Vance, Darla Whitley, and Barry Fogerty

OKLAHOMA GOVERNOR'S WATER CONFERENCE ANNUAL

25th

2004 Oklahoma Water Pioneers

Glenn Sullivan Joe Taron

26th Annual Oklahoma Governor's Water Conference

Investing in Water

It's Time for Action!

Oklahoma Groundwater Symposium

TUESDAY, NOVEMBER 1

1:00 **Registration**

1:30 **Welcome and Overview**
Duane A. Smith, Executive Director, OWRB
Rep. Curt Roggow

1:40 **Keynote Address--*Water Follies: Ground Water Pumping and the Fate of America's Fresh Waters***
Robert Glennon, Professor, Univ. of Arizona College of Law

2:25 **Oklahoma Groundwater Law**
Dean Couch, General Counsel, OWRB

2:40 **Oklahoma's Dependence on Groundwater**
Kim Winton, Director, OK Water Science Center, USGS

2:55 **Pitfalls in Groundwater Planning**
Todd Halihan, Professor of Geology, OSU

3:10 **Break**

3:25 **Unconstitutional Takings of Water Interests**
James H. Davenport, Esq., Chief Water Division, Colorado River Commission of Nevada

3:45 **Groundwater Quality Standards & Implementation**
Derek Smithee, Water Quality Division Chief, OWRB

4:00 **Groundwater Panel**

The Water Well Drilling Industry: Protecting Our Groundwater
Cheryl Cohenour, Cherokee America Drilling (CRC&Associates)

Developments in USGS Groundwater Research: Age-Dating Groundwater
Scott Christenson, Hydrologist, USGS

Arsenic in Our Groundwater: A Municipal Approach
Brad Gambill, City Manager, Norman, Oklahoma

Arbuckle-Simpson Hydrology Study Update
Noel Osborn, Geologist, OWRB

5:00 **Adjourn to Reception**

WEDNESDAY, NOVEMBER 2

8:00 **Registration**

8:30 **Welcome and Introductions**
Rudy Herrmann, OWRB Chairman
Pete White, Chairman, Oklahoma City Water Utilities Trust

8:50 **State of the State's Water**
Duane A. Smith, OWRB

9:10 **Water for the Environment**
Miles Tolbert, Secretary of Environment

9:30 **Water for Agriculture**
Terry Peach, Secretary of Agriculture

9:50 **Helping Oklahoma's Small Communities**
Steve Thompson, Executive Director Oklahoma Department of Environmental Quality

10:10 **Break/Exhibits**

10:25 **Federal Water Resources Development & Planning Panel**

U.S. Army Corps of Engineers Activities
Colonel Miroslav Kurka, Tulsa District Engineer

Bureau of Reclamation Activities
Mike Ryan, Great Plains Regional Director

Natural Resources Conservation Service Activities
Larry Caldwell, National Policy Coordinator Watershed Rehabilitation

11:25 **Protecting the Nation's Waters**
Susan Branning, Assistance Branch Chief, EPA Region 6

11:45 **Illinois River Update**
Drew Edmondson, OK Attorney General

Noon **Luncheon Program**

Luncheon Address
Lt. Governor Mary Fallin

Oklahoma Water Pioneer Awards

Water Outlook from Washington D.C.
Oklahoma's Congressional Delegation
Blu Hulsey, Majority Counsel, U.S. Senate Committee on Environment & Public Works

Oklahoma State Legislative Update
Sen. Richard Lerblance, Rep. Susan Winchester, Sen. Kenneth Corn, Rep. Don Armes, Sen. Jeff Rabon

3:00 **Adjournment**

2005 Oklahoma Water Pioneers

Jay Galt, 1943-2005

Julian Fite, 1945-2005

November 1-2, 2005

MONDAY, NOVEMBER 13, 2006

1:00 REGISTRATION

1:30 Welcome and Overview
Duane A. Smith, Executive Director, OWRB
Rep. Guy Liebmann

1:50 Comprehensive Water Planning in New Mexico
John D'Antonio, New Mexico State Engineer

2:10 Panel–Oklahoma's Water Planning Process

OCWP Study Organization and Management
Mike Mathis, OWRB Water Plan Coordinator

Stakeholder Involvement and Participation
Dr. Will Focht, Director
Oklahoma Water Resources Research Institute

Water Infrastructure Inventory
Trish Weedn, Executive Director
Oklahoma Association of Regional Councils

Federal Planning Assistance
Sue Haslett, Planning and Environmental Division Chief, U.S. Army Corps of Engineers Tulsa District

3:10 Partnerships in Regional Water Planning
Representative of U.S. Bureau of Reclamation

3:25 Break

3:40 Future Water Policy Considerations
Rudy Herrmann, OWRB Chairman

3:55 Planning for Environmental Protection
Steve Thompson, Executive Director
Oklahoma Dept. of Environmental Quality

4:10 Banking on Bristow's Water Future
Kel Kelly,President, Spirit Bank

4:25 Panel–Incorporating Water User Concerns

Municipal Interests
Danny George, Executive Director
Oklahoma Municipal League

Agricultural Interests
Terry Peach, Secretary of Agriculture

Industrial/Navigation Interests
Ronn Cupp, Senior Vice President
Government Affairs, The State Chamber

5:10 Watershed Planning in Oklahoma
Clay Pope, Executive Director
Oklahoma Association of Conservation Districts

5:25 Summary & Adjournment to Reception

TUESDAY, NOVEMBER 14, 2006

8:00 REGISTRATION

8:30 Welcome and Introductions
Rudy Herrmann, OWRB Chairman

8:45 Keynote: The Worst Hard Time
Timothy Egan, Author

9:30 The Oklahoma Drought
Ken Crawford, Director
Oklahoma Climatological Survey

9:50 Coffee Break/Exhibits

10:10 Update of the Oklahoma Comprehensive Water Plan
Duane Smith, OWRB Executive Director

10:30 State of the State's Environment
Miles Tolbert, Secretary of Environment

10:50 Legal Considerations in Oklahoma Water Planning
Gary D. Allison, Professor of Law
University of Tulsa

11:10 Oklahoma's Future: Strategies for Our 2nd Century
Larry Rice, Executive Assistant to the President
University of Tulsa

11:30 Oklahoma Legal Briefs
Attorney General Drew Edmondson

Noon LUNCHEON PROGRAM

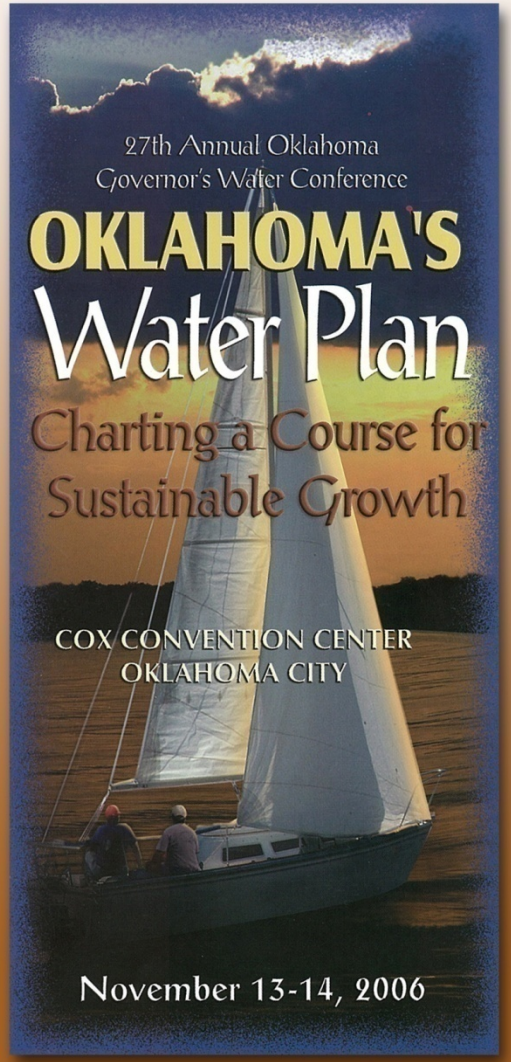
Gubernatorial Address

Oklahoma Water Pioneer Awards

Water Outlook from Washington D.C.
Michele Nellenbach, Senior Professional Staff Member, U.S. Senate Committee on Environment & Public Works

State Legislative Water Perspective
Rep. Lance Cargill, House Speaker Designate
Rep. Don Armes
Sen. Charlie Laster

2:30 Adjournment



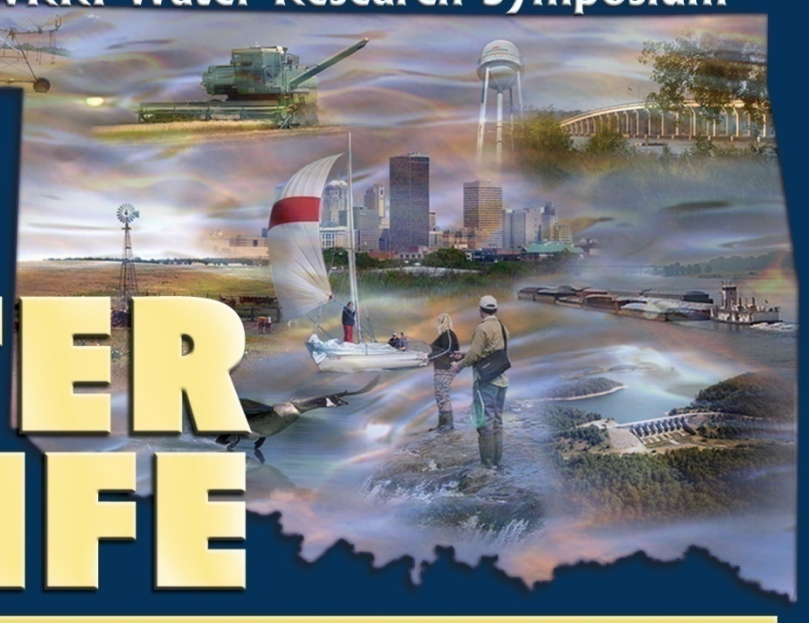
2006 OKLAHOMA WATER PIONEERS

W. C. Austin
Ervin Mitchell

28th Annual Governor's Water Conference & 5th Annual OWRRI Water Research Symposium

Cox Convention Center
Oklahoma City, OK

October 23-25, 2007



WATER for LIFE

Tuesday, October 23

8:00 Registration

8:30 Welcome
Dr. Glenn Brown, Biosystems & Agricultural Engineering, Oklahoma State University

8:45 Session 1A: The Arbuckle-Simpson Hydrology Study—Hydrology of the Arbuckle-Simpson Aquifer
Session Chair: Noel Osborn, Water Resources Geologist, Oklahoma Water Resources Board

Overview of the Arbuckle-Simpson Hydrology Study
Noel Osborn, OWRB

Geologic Framework of the Arbuckle-Simpson Aquifer
Dr. Todd Halihan, Assistant Professor, School of Geology, OSU

Groundwater Hydrology of the Arbuckle-Simpson Aquifer
Scott Christenson, Hydrologist, New Mexico Water Science Center, U.S. Geological Survey

Stream Hydrology and Water Balance of the Arbuckle-Simpson Aquifer
Dr. Baxter Vieux, Director, Center for Natural Hazards & Disaster Research, Oklahoma Univ.

10:00 Break/Student Poster Competition Viewing

10:30 Session 1B: The Arbuckle-Simpson Hydrology Study—Putting the Pieces Together for Water Management
Session Chair: Noel Osborn, OWRB

The Role of Science in Evaluating Management Options for the Arbuckle-Simpson Aquifer
Noel Osborn, OWRB

Modeling Surface Water Rights
Benjamin Harding, Principal Engineer, Hydrosphere Resource Consultants

Modeling Fish Habitat in Streams Draining the Arbuckle-Simpson Aquifer
Dr. Bill Fisher, Research Ecologist, Oklahoma Cooperative Fish & Wildlife Research Unit, OSU

Simulations of Groundwater Flow in the Arbuckle-Simpson Aquifer
Scott Christenson, USGS

11:45 Luncheon

ARS Water Resources Research in Oklahoma: From Floods to Droughts & Everything in Between, A Story Worth Telling
Jurgen Garbrecht, Agricultural Research Service, U.S. Department of Agriculture

1:30 Session 2: Updates & New Developments
Session Chair: Dr. Glenn Brown, OSU

Issues with Setting Water Quality Based Endpoints for a Quantitative P Index
Dr. Dan Storm, Biosystems & Agricultural Engineering, OSU

Harmful Algal Bloom Management Policy for Corps of Engineers Tulsa District Reservoirs
Dr. Gerard A. Clyde, U.S. Army Corps of Engineers, Tulsa District

Research & Evolving Tools on Earthen Embankment Breach Failure Processes & Erodibility
Dr. Greg Hanson, USDA-ARS

3:00 Break/Student Poster Competition Viewing

3:30 Session 3: The Grand Lake Watershed Interstate Public/Private Plan
Session Chair: Dr. Michael Smolen, OSU

Introduction to Cooperative Programming in the Four States & the Four-State Alliance Partnership
Dr. Michael Smolen, OSU

Grand Lake—It's a Big Watershed
Carl Metcalf, Grand Lake Watershed Alliance Foundation

Grand Lake Watershed Implementation (Oklahoma) & Four State Planning Efforts
Dr. Kevin Gustavson, Oklahoma Conservation Commission

Watershed Education Programs & Stakeholder Groups in the Shoal Creek & Elk River Watershed of Missouri
Drew Holt, University of Missouri Extension

Watershed Education Programs & Stakeholder Groups in the Neosho River Watershed of Kansas
Jim Triplett, Pittsburgh State University

5:00 Adjournment to Reception

Wednesday, October 24

8:00 Registration

8:15 Welcome & Introductions
Dr. Marlene Strathe, Interim President, OSU

8:30 Oklahoma's Water Future
Dr. John F. Luthy, President, The Futures Corporation

9:15 Session 4: Defining Water Sustainability
Session Chair: Dr. Kim Winton, Director, Oklahoma Water Science Center, USGS

Assessment of Water Availability in Regional Aquifer Systems Using Modflow's Farm Process
Randall T. Hanson, Research Hydrologist, USGS

Precipitation Variability & Sustainability of Water Supply & Demand
Dr. Jurgen Garbrecht, USDA-ARS

An Introduction to Ecological Flows
Rachel Esralew, Stream Ecologist, USGS Oklahoma Water Science Center
Ellen Tejen, The Nature Conservancy

10:45 Break

11:00 Session 5: Science and Policy
Session Chair: Ed Rossman, Assistant Chief, Planning & Environmental Division, Corps of Engineers, Tulsa District

The Division of Agricultural Sciences & Natural Resources' Initiative in Water Resources
Dr. Robert Whitson, Vice President, Dean and Director for Agricultural Programs, OSU

Shared Vision Planning Applied to Regulatory Decisions
Hal Cardwell, Corps of Engineers, Institute for Water Resources
Bill Werick, Corps of Engineers, Institute for Water Resources (retired)
Gene Lilly, Corps of Engineers, Tulsa District

Assembly & Use of a Decision Support System in an Efficient Drinking Water Distribution Planning of Public Rural Water Supply Systems in Northeastern Oklahoma
Anna Childers, OSU

Tribal Water Quality: A Cherokee Nation Perspective
Cara Cowan Watts, Cherokee Nation Tribal Council

12:30 Luncheon
Mark Nichols, OWRB Chairman

OWRRI Student Poster Competition Winner Announcement

EPA Pisces Award Presentation

Oklahoma Water Pioneer Awards

Water Planning at the Federal Level
John Paul Woodley, Jr., Assistant Secretary of the Army, Civil Works, Corps of Engineers

2:00 Oklahoma Legal Briefs
Attorney General Drew Edmondson

2:20 Conservation as a Planning Tool
Gary Mast, Deputy Undersecretary for Natural Resources & the Environment, USDA

2:40 Water Plan Update

Overview of the Oklahoma Comprehensive Water Plan
Duane Smith, OWRB Executive Director

OCWP Public Participation
Dr. Will Focht, Director, Oklahoma Water Resources Research Institute

Private Sector Partnering
John Rehring, Vice President, Camp Dresser & McKee, Inc.

3:25 Break

3:40 Kansas Water Plan
Tracy Streeter, Director, Kansas Water Office

4:00 OCWP Forum

Oklahoma Water: Envisioning the Next 50 Years. Moderator: Dr. John Luthy
Terry Peach, Oklahoma Secretary of Agriculture
Ron Stahl, Discover Oklahoma, Oklahoma Tourism & Recreation Dept.
Zach Taylor, Executive Director, Association of Central Oklahoma Governments
Howard (Bud) Ground, Manager, State Governmental & Environmental Affairs, Public Service Company of OK
Tom Buchanan, General Manager, Lugert-Altus Irrigation District

5:30 Adjourn to Reception

6:30 "Celebration of Oklahoma Water" Banquet

Thursday, October 25 (Rooms A & B)

8:00 Registration

8:15 Welcome & Remarks
Duane Smith, OWRB Executive Director

8:30 Sustainable Water Planning
Miles Tolbert, Oklahoma Secretary of the Environment

8:50 Bureau Update
Robert W. Johnson, Commissioner, Bureau of Reclamation

9:10 Responding to Climate Change

Dealing with Climate Change in Oklahoma
Ken Crawford, State Climatologist, Oklahoma Climatological Survey

The National Water Program Strategy
James R. Brown, Chief, Planning and Analysis Branch, U.S. Environmental Protection Agency, Region 6

10:00 Break

10:15 A View from the State Legislature
Senator Glenn Coffee, Co-President Pro Tempore
Senator Jay Paul Gumm, Co-Chairman, Energy & Environment Committee
Representative Guy Liebmann, Chairman, General Government & Transportation Committee
Representative Skye McNiel, Vice-Chair, Natural Resources Committee

11:00 Water Outlook from Washington DC
Oklahoma's Congressional Delegation

Adjournment

2007 Oklahoma Water Pioneers

Ken Crawford

Jerry Johnston

Don Kiser

29th Annual Governor's Water Conference & 6th Annual OWRRI Water Research Symposium

Sheraton-Reed Conference Center
Midwest City, OK

October 28-30, 2008

Oklahoma Comprehensive Water Plan

Water Solutions for Oklahoma

October 28

GOVERNOR'S WATER CONFERENCE AGENDA

7:45 **Registration**
8:15 Welcome
Mark Nichols, Chairman, OWRB
J.D. Strong, Oklahoma Secretary of the Environment
8:30 Comprehensive Water Planning in Oklahoma: Duane Smith, OWRB Executive Director
9:15 The Corps of Engineers' Water Planning Role: Steve Stockton, Director of Civil Works, Corps of Engineers
9:30 The Corps' Tulsa District - Working with Oklahoma: Col. Anthony Funkhouser, Tulsa District Engineer
9:45 **Break**
10:15 OCWP Public Participation: Will Focht, Director, OWRRI
10:35 ***Panel: OCWP Technical Studies***
Overview: John Rehring, Camp Dresser & McKee Inc.
Statewide Water Supply/Demand Analysis: Kelly DiNatale, Senior Water Resources Engineer, CDM
Public Water Provider/Infrastructure Survey: Bryan Mitchell, Deputy Project Manager for the OCWP, CDM
11:40 **Break**
Noon **Conference Luncheon**
Oklahoma Water Pioneer Awards
Chairman Nichols, Duane Smith
Legislative Water Perspective
Senator Glenn Coffee, Co-President Pro Tempore
Representative Dale DeWitt
Water Outlook from Washington DC
Representative Mary Fallin
Representative Tom Cole
1:40 **Break**
2:00 Interior Update
Kris Polly, Dep Asst Sec for Water and Science, Dept of Interior
2:20 The New State/Federal Water Planning Model
Fred Caver, President, Caver & Associates Inc.
2:40 The Great Lakes Compact
Cameron Davis, President, Alliance for the Great Lakes
3:00 Water Supply Management in a Variable Climate
Ken Crawford, Director, Oklahoma Climatological Survey
3:20 Arbuckle-Simpson Study Proposed Management Options
Noel Osborn, Water Resources Geologist, OWRB
Scott Christenson, Hydrologist, U.S. Geological Survey
4:20 **Adjourn to Reception**

October 29

7:45 **Registration and Poster Viewing**
8:15 Welcome
Duane Smith, OWRB Executive Director
Mayor Mick Cornett, Oklahoma City
8:40 The Energy/Water Nexus
Tom Price, Jr., Senior VP-Corporate Development, Chesapeake
9:00 The Tribal Role in Water Plan Development
Governor Bill Anoatubby, Chickasaw Nation
9:20 Nexus Between Water Supply Planning & Environmental Flows - The Texas Experience
Bill Mullican, Water Science & Cons, Texas Water Dev Board
9:40 Partnerships in Oklahoma Water Quality
Steve Thompson, Executive Director, ODEQ
10:00 **Break & Poster Viewing**
10:30 ***Panel: Protecting Oklahoma's Water Interests***
Michael Fuhr, Director, Nature Conservancy of Oklahoma
Jeff Todd, Attorney, Oklahoma Farm Bureau Legal Foundation
Diane Pedicord, General Counsel, Oklahoma Municipal League
Bob Portiss, Director, Tulsa Port of Catoosa
11:20 ***Panel: Regional Water Solutions for Oklahoma***
Rob Johnson, CEO, National Rural Water Association
Steve Lewis, Manager, City of Norman
Kelly Hurt, Engineer, Chickasaw Enterprises
Noon **Conference Luncheon**
4-H Speech Contest Winners
From Wall Street to Main Street: The Financial Crisis & Its Impact on Water Infrastructure: Chris Cochran, Capital West Securities Inc.
Rick Smith, Municipal Finance Services Inc.

October 29

OWRRI WATER RESEARCH SYMPOSIUM AGENDA

1:30 ***Session 1: Updates and New Developments***
Chair: Ed Rossman, Adjunct Professor, Environmental Science, OSU
3:00 **Break & Poster Viewing**
3:30 ***Session 2: Trends in Water Use***
Chair: Stan Paxton, USGS Oklahoma Water Science Center - Chief, Study Section
5:00 **Adjourn to Reception & Poster Viewing**

October 30

7:45 **Registration and Poster Viewing**
8:15 Welcome & Introductions: Glenn Brown, Symposium Chair, and Professor, Biosystems and Agricultural Engineering, OSU
Burns Hargis, System CEO & President, OSU
8:30 ***Session 3: Climate Change and Water Planning in Oklahoma***
Chair: Jurgen Garbrecht, Research Hydraulic Engineer, ARS USDA
10:00 **Break & Poster Viewing**
10:30 ***Session 4: Information/Data Flow Through Federal Agencies***
Chair: Kim Winton, District Chief, USGS
12:00 **Symposium Luncheon**
Announcement of Poster Contest Winners
Presentation: Transbasin Water Supply in the Kingdom of Urartu: Jurgen Garbrecht, ARS USDA
1:30 ***Session 5: Water Research by Tribes in Oklahoma***
Chair: Talee Redcorn, Minerals Council, Osage Nation
3:00 **Break**
3:30 ***Session 6: Water Budgets as a Basis for Water Resource Management***
Co-Chairs: Noel Osborn, OWRB, and Jeanne Schneider, Meteorologist, ARS USDA
5:00 **Adjourn**

2008 Water Pioneers

Garner Garrison

Mason Mungle

Robbie Robbins

30th Annual Oklahoma Governor's Water Conference

7th Annual OWRRI Water Research Symposium

Understanding Oklahoma Water

November 3-5, 2009

Sheraton-Reed Conference Center
Midwest City, Oklahoma

Governor's Water Conference

Tuesday, November 3

7:45 Registration

8:15 Welcome & Introductions
Rudy Herrmann, OWRB Chairman
Lt. Gov. Jari Askins

8:45 America's Water Crisis
Robert Glennon, Law Professor, Author

10:00 Break/Book Signing (Robert Glennon)

10:30 Oklahoma's Water Resources: Past, Present, and Future
Duane Smith, OWRB Executive Director

10:50 National Water Policy
Steve Stockton, Director of Civil Works, USACE

11:10 Regional Water Issues
Col. Anthony Funkhouser, Tulsa District Engineer, USACE

11:30 Reclamation Activities
Mike Ryan, Regional Director, Bureau of Reclamation

Noon Luncheon
Oklahoma Water Pioneer Awards
Rudy Herrmann
Duane Smith
Water Outlook from Washington DC
Congresswoman Mary Fallin
Rural Development Stimulus Funding
Ryan McMullen, State Director, USDA Rural Development

2:00 Legal Update
Drew Edmondson, OK Attorney General

2:20 Planning for Oklahoma's Water Quality
Derek Smithee, Chief, OWRB Water Quality Division

2:40 ODEQ/OWRB Stimulus Funding
Steve Thompson, ODEQ Executive Director

3:00 Break

3:30 Legislative Water Perspective
Susan Paddack, OK State Senate

3:50 Arbuckle-Simpson Hydrology Study
Duane Smith

4:10 Garber-Wellington Aquifer Study
Scott Christenson, USGS

4:30 OCWP Tribal Issues
Lindsay Robertson, Professor, OU College of Law

4:50 Adjourn to Reception
(5:00-7:00 p.m., Joyner Room)

Wednesday, November 4

7:45 Registration & Poster Viewing

8:15 Welcome & Introductions
Duane Smith

8:30 Panel: OK Comprehensive Water Plan
OCWP Overview & Update
Kyle Arthur, OWRB Director of Planning
OCWP Technical Studies Update
John Rehring, Engineer, CDM
OCWP Public Participation Process Update
Will Focht, OWRRI Director

10:00 Break

10:30 Oklahoma Water: Leading the Way
Glenn Coffee, President ProTempore, OK State Senate
Chris Benge, Speaker, OK House of Representatives

11:00 GRDA Water Planning
Kevin Easley, CEO, Grand River Dam Authority

11:20 Interstate Stream Compacts
Chuck Dumars, Attorney, Law & Resource Planning Associates

11:40 OCS Water Planning Research
Renee McPherson, Acting Director, OK Climatological Survey

Noon Luncheon
J.D. Strong, Secretary of the Environment
4-H Club Speech Contest Winners

OWRRI Water Research Symposium

Wednesday, November 4

1:00 Poster Viewing
Poster Session Chair: Michael Holmes, Assistant Professor, OSU

1:30 Session 1: Updates and New Developments
Chair: Glenn Brown, Professor, OSU
- Development of a Model for Evaluating Future Supply Needs of Rural Water Districts and Small Communities, Arthur Stoecker, Agricultural Economics, OSU
- Arkansas River Low Water Dams, Gaylon Pinc, Program Mgmt. Group
- Bioretention Cells/LID Project in Grove, OK, Glenn Brown
- Using Geologic Data and GIS to Make Base of Treatable Water Maps that Protect Fresh Water Aquifers, Charles Lord, OK Corporation Commission
- 3-D Booth Introduction, Tim Sickbert, Boone Pickens School of Geology, OSU

3:05 Break & Poster Viewing

3:30 Session 2: Garber-Wellington Aquifer in Central Oklahoma
Chair: Noel Osborn, Geologist, OWRB
- Using Outcrops to Describe Aquifer Properties: A Garber-Wellington Example, Stan Paxton, USGS
- Water Levels in the Garber-Wellington (Central Oklahoma) Aquifer, 1986-87 to 2009, Shana Mashburn, USGS
- Removing Arsenic from the Garber-Wellington Aquifer with Granular Ferric Oxide, Mary Elizabeth Mach, Garver Engineers
- Potential for Arsenic Remediation by Well Modification, Norman, Oklahoma, 2003-2006, Jerrod Smith, USGS

5:00 Adjourn/Poster Viewing

Thursday, November 5

7:45 Registration & Poster Viewing

8:15 Welcome & Introductions

8:30 Session 3: Surface Water
Chair: Kim Winton, District Chief, USGS
- Volunteers and Their Data: What We Know About Blue Thumb Streams, Jean Lemmon, OK Conservation Commission
- Assessment of Environmental Flows in Oklahoma, Don Turton, NREM, OSU
- Changes in Selected Metals Concentrations from the Mid-1980s to the Mid-2000s in a Stream Draining the Picher Mining District of Oklahoma, William Andrews, USGS
- Concentrations of Selected Metals in Bottom Sediments from Grand Lake o' the Cherokees, Oklahoma, Mark Becker, USGS

10:00 Break & Poster Viewing

10:30 Session 4: Evaporation, ET, and Soil Water
Chair: Dave Engle, Water Reseach & Education Center, OSU
- Quantifying Evapotranspiration Across Varying Seasonal and Within-Season Climatic Signals Across Oklahoma, Jeffrey Basara, OK Climatological Survey
- Oklahoma's White Water, Tyson Ochsner, Plant & Soil Sciences, OSU
- Remote Sensing of Evapotranspiration, Yang Hong/Baxter Vieux, Civil Engineering & Environmental Science, OU
- Soil Water in Oklahoma No-Till, Jason Warren, Plant & Soil Sciences, OSU

12:00 Luncheon
The Nabataeans: An Ancient Hydraulic Society
Dr. Mac McKee, Univ. of Utah
Announcement of Poster Contest Winner

1:30 Session 5: Field Techniques in Water Research
Chair: Baxter Vieux, Professor, OU
- Using Helicopter Electro-Magnetic Survey Maps and Cross-Sections and Aerial Photos to Locate and Differentiate Salinity Pollution Sources, Patricia Billingsley, OK Corporation Commission
- Three-Dimensional Electrical Resistivity Imaging in the El Reno Well Field, Canadian County, Oklahoma, John Harrington, Association of Central OK Governments
- Implementation Monitoring: Use of Automated Samplers to Effectively Document Water Quality Improvements, Brooks Tramell, OK Conservation Commission
- Climate Impacts on Sediment Production at Fort Cobb Reservoir, Jurgen Garbrecht, USDA

3:00 Break

3:30 Session 6: Monitoring and Modeling Nutrient Transport Processes
Chair: Mike Smolen, Biosystems & Agricultural Engineering, OSU
- Distributing Phosphorus Load for a TMDL, Mike Smolen
- Estimates of Nutrient Concentrations in the Eucha-Spavinaw Basin Using Real-Time Continuous Water Quality Monitoring, Rachel Esralew, USGS
- Subsurface Transport of Phosphorus in Alluvial Floodplains, Garey Fox, Biosystems & Agricultural Engineering, OSU
- Demonstrating Success: Oklahoma's Beaty Creek Watershed Implementation Project, Greg Kloxin, OK Conservation Commission

5:00 Adjournment

Oklahoma Comprehensive Water Plan

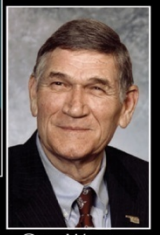
OCWP

2009 Oklahoma Water Pioneers

James Barnett

Jon Craig

Steven Moore


Gene Whatley

31st Annual Oklahoma Governor's Water Conference and 8th Annual OWRRI Water Research Symposium

October 26-27, 2010

Embassy Suites Hotel and Conference Center
Norman, Oklahoma

A Shared Resource, A Shared Responsibility

8:00 AM October 26

Welcome
- Rudy Herrmann, OWRB Chairman
- Cindy Rosenthal, Mayor, City of Norman

Address: Jari Askins, Lt. Governor, State of Oklahoma
Keynote: Scott Huler, Author, *On the Grid*
State of the State's Water
- J.D. Strong, OK Sec. of Environment, OWRB Exec. Director

10:00 AM OCWP Municipal/Public Water Supply Panel
- Moderator: Steve Thompson, Executive Director, ODEQ
- Bill Sims, President, Oklahoma Rural Water Association
- Jerry Johnston, Mayor, Braman, Oklahoma
- Rodney Ray, City Manager, Owasso, Oklahoma
- Marsha Slaughter, Director, OKC Water Utilities Trust

11:30 AM Luncheon Program

Federal Update
- Congressman Tom Cole
- Laura Furgione, Deputy Director, National Weather Service

Oklahoma Water Pioneer Awards

1:30 PM OCWP Agriculture Panel
- Moderator: Terry Peach, OK Sec. of Agriculture
- Dr. Larry Sanders, Professor & Extension Economist, OSU
- Tom Buchanan, Director, Lugert-Altus Irrigation District
- Mike Armitage, Owner/CEO, A Bar Ranch/Armitage Livestock

3:30 PM OCWP Tribal Panel
- Moderator: Bill Anoatubby, Chickasaw Nation Governor
- Chris Tweeten, Chairman, MT Reserved Rights Compact Commission
- Chris Kenney, Director, USBR Office of Native American Affairs
- Stephen Greetham, Special Counsel for the Chickasaw Nation

5:00 Adjourn to Reception

8:00 AM October 27

Welcome
- Rudy Herrmann, OWRB Chairman

Federal Update
- Congresswoman Mary Fallin
- Colonel Michael Teague, Tulsa District Engineer, USACE

Water Plan Update
- Kyle Arthur, Director of Planning, OWRB
- John Rehring, CDM
- Ken Senour, C H Guernsey
- Will Focht, OWRRI

10:00 AM OCWP Environment Panel
- Moderator: Richard Hatcher, Director, OK Dept. of Wildlife Conservation
- Mike Fuhr, The Nature Conservancy
- Barney Austin, INTERA
- Tracy Boyer, Associate Professor of Agricultural Economics, OSU
- Shannon Brewer, OK Cooperative Fish and Wildlife Research Unit

11:30 AM Luncheon Program

Inca Water Engineering—Machu Picchu, Tipon, & Moray
- Kenneth R. Wright and Ruth Wright

Poster Contest Winners
4H Speech Contest Winners

1:30 PM OCWP Commerce and Industry Panel
- David Myers, Ponca City Development Authority
- David Braddock, Altus Economic Development Corporation
- Brent Kisling, Enid Regional Development Alliance

3:30 PM OCWP Energy Panel
- Bud Ground, Public Service Company of Oklahoma
- Richard Luedecke, Devon Energy Corporation
- Trish Horn, OGE Energy Corporation

5:00 PM Adjourn

2010 Oklahoma Water Pioneers

Drew Edmondson

Mike Melton

Diane Pedicord

OKLAHOMA COMPREHENSIVE WATER PLAN:

THE FOUNDATION FOR OKLAHOMA'S WATER FUTURE

OCTOBER 18-19, 2011

32nd Annual Governor's Water Conference & 9th Annual OWRRI Water Research Symposium

EMBASSY SUITES HOTEL AND CONFERENCE CENTER • NORMAN, OKLAHOMA

OCWP

Tuesday, October 18

8:00 AM — OKLAHOMA BALLROOM

WELCOME:
Linda Lambert, OWRB Chairman
Todd Lamb, Oklahoma Lieutenant Governor

Keynote:
Charles Fishman, Author, *The Big Thirst*

2012 Update of the Oklahoma Comprehensive Water Plan:
J.D. Strong, OWRB Executive Director
Kyle Arthur, OWRB Director of Planning

9:30 — BREAK

10:00

UNIVERSITY BALLROOM	ROOM G-H
OCWP Panel 1: THE VALUE OF WATER *Agriculture:* Mark Nichols *Public Supply:* Bill Sims, ORWA *Energy Production:* Patricia Horn, OG&E *Navigation:* Bob Portiss, Port of Catoosa *Fish & Wildlife:* Richard Hatcher, ODWC	**Water Research Symposium Session 1: UPDATES AND NEW DEVELOPMENTS** **Welcome:** Bob Whitson, OSU Session Chair: Caryn Vaughn, OU *The Oklahoma Water Survey:* Paul Risser, OU *Future Changes in Stormwater Program Requirements:* Richard Smith, INCOG *Harmful Algae in Oklahoma:* David Hambright, OU *Mosquitoes as Bioindicators of Inefficient Wastewater Disposal:* Valerie O'Brien, OSU

11:30 — OKLAHOMA BALLROOM

LUNCHEON
Oklahoma Water Pioneer Awards
R. Thomas Lay & Rick A. Smith

Water Outlook from Washington DC:
Congressman James Lankford

1:00 — BREAK

1:30

UNIVERSITY BALLROOM	ROOM G-H	ROOM I-J
OCWP Panel 2: WATER SUPPLY LIMITATIONS, OPTIONS, & SOLUTIONS *OCWP Water Demand/Hot Spots:* Jessica Fritsche, CDM *OCWP Water Supply Options:* Dan Reisinger, CDM *Regional Water Supply:* Karl Stickley, C H Guernsey *Maximizing Existing Storage:* Robert Toole, OCC	**Water Research Symposium Session 2: EFFECTS OF DROUGHT IN OKLAHOMA** Session Chair: Stan Paxton, USGS *Incorporating Climate Change Science into Water Supply Planning:* Tim Cox, CDM *Drought Effects on Mussels in SE Oklahoma Rivers:* Caryn Vaughn, OU *Drought Monitoring: A System for Tracking Plant Available Water Based on the Oklahoma Mesonet:* Al Sutherland, OSU *Measuring Drought Impacts:* Dave Shideler, OSU	**Hydrologic Studies & Tools I** *ABRFC, CoCoRAHS, and You:* James Paul, Arkansas-Red Basin River Forecast Center *Groundwater Levels in Oklahoma:* Chris Neel, OWRB *Future OWRB Hydrologic Investigations:* Chris Neel, OWRB *Rush Springs Aquifer in Caddo County:* Mark Becker, USGS

3:00 — BREAK

3:30

UNIVERSITY BALLROOM	ROOM G-H	ROOM I-J
OCWP Panel 3: INNOVATIONS IN CONSERVATION, RECYCLING, & REUSE *OCWP Conservation Assessment:* Jessica Fritsche, CDM *Agricultural Water Efficiency:* Jason Hitch, Hitch Enterprises *Energy Water Conservation:* Richard Luedecke, Devon *Marginal Quality Water Use:* Mike Irlbeck, Abengoa Water *Municipal Water Reuse:* Phil Spitzer, Alan Plummer Associates.	**Water Research Symposium Session 3: APPLICATIONS IN ENVIRONMENTAL ENGINEERING** Session Chair: Jason Vogel, OSU *A Fluvial Geomorphic and Sediment Transport Study of the Little River:* Russell Dutnell, OU *Garnett Regional Detention Facility: Balancing Development, Flood Mitigation and Environmental Restoration:* Brandon Claborn, Meshek & Associates *Passive Flow Regulated Chemical Injection System for Sediment Removal from Runoff:* Karl Garbrecht, OSU *The Use of Sterol Distributions to Determine the Origin of Fecal Contamination:* Coralie Biache, OU	**Hydrologic Studies & Tools II** *Stream Water Allocation:* Bob Fabian & Maria Moreno, OWRB *Garber-Wellington Hydrologic Investigation:* Shana Mashburn, USGS, & Chris Neel, OWRB

5:00 — RECEPTION

Wednesday, October 19

8:00 AM — OKLAHOMA BALLROOM

WELCOME:
Linda Lambert, OWRB Chairman
Gary Sherrer, Oklahoma Secretary of Environment

Joint Legislative Water Committee:
Kris Steele, House Speaker
Brian Bingman, Senate President Pro Tempore

Federal Update:
Col. Michael Teague, Tulsa District Engineer, USACE

9:30 — BREAK

10:00

UNIVERSITY BALLROOM	ROOM G-H	ROOM I-J
OCWP Panel 4: REGIONAL PLANNING EXPERIENCES IN OTHER STATES ***Texas Regional Water Planning Groups:*** Carolyn Brittin, Texas Water Development Board ***Kansas Basin Advisory Committees:*** Tracy Streeter, Kansas Water Office ***Colorado Basin Roundtables & Georgia Regional Water Planning Councils:*** Rick Brown, CDM	**Water Research Symposium Session 4: SOCIAL & ECONOMIC STUDIES OF WATER RESOURCES** Session Chair: Guy Sewell, ECU *Building Partnerships for a Coordinated Flood Vulnerability Assessment and Readiness Plan:* William Smiley, USACE *Household Perceptions of Price and Non-price Water Conservation Tools:* Tracy Boyer, OSU *A Water Rights Comparison of AR, TX, OK, NM, GA, AL, & FL:* Rebecca Harjo & Jeri Fleming, OSU *Beyond OCWP 2012: Future Allocation Strategies for Oklahoma's Water Resources:* Guy Sewell, ECU	**Oklahoma Association of Reclamation Projects Meeting**

11:30 — OKLAHOMA BALLROOM

LUNCHEON
Poster Contest Winners

4-H Speech Contest Winners
Maddi Shires, Calera
Jenna Murray, Fletcher

Ancient Israeli Water Systems:
Dr. Dan Warner

1:00 — BREAK

1:30

UNIVERSITY BALLROOM	ROOM G-H	ROOM I-J
OCWP Panel 5: INSTREAM/ENVIRONMENTAL FLOWS **OKLAHOMA:** Derek Smithee, OWRB **TEXAS:** Mark Wentzel, Texas Water Development Board **NEBRASKA:** Rick Eades, Nebraska Game and Parks Commission **KANSAS:** Tracy Streeter, Kansas Water Office	**OWRRI Water Research Symposium Session 5: WATER QUALITY MANAGEMENT SUCCESS STORIES** Session Chair: Phillip Moershel, OWRB *Nutrient TMDLs for Sensitive Water Supply Lakes:* Andrew Fang, ODEQ *Passive Treatment Opportunities in a Drastically Disturbed Watershed:* Robert Nairn, OU *Solving Water Quality Problems through Voluntary Programs:* Shanon Phillips, OCC *Detecting Water Quality Improvements through Trend Analyses:* Monty Porter, OWRB	**OCWP Panel 6: WATER PROJECT & INFRASTRUCTURE FUNDING** Amber Wooten, CDM Anne Burger, FirstSouthwest Chris Cochran, BOSC, Inc. Joe Freeman, OWRB

3:00 — BREAK

3:30

UNIVERSITY BALLROOM	ROOM G-H
Joint Legislative Water Committee Open Meeting Senator Brian Crain & Representative Phil Richardson	**OWRRI Water Research Symposium Session 6: STREAM WATER-GROUNDWATER INTERACTION** Session Chair: Kim Winton, USGS *One Water:* Chris Harich, USGS *The Importance Of Understanding Groundwater - Surface Water Interaction for Integrated Water Management in Nebraska:* James Cannia, USGS NE Water Science Center *GW/SW Interaction in the Arbuckle-Simpson Aquifer:* Noel Osborn, USGS *Quantification & Heterogeneity of Phosphorus Leaching in Ozark Floodplains:* Derek Heeren, OSU

5:00 — ADJOURN

2011 Oklahoma Water Pioneers
R. Thomas Lay
Rick A. Smith

33RD ANNUAL GOVERNOR'S WATER CONFERENCE
10TH ANNUAL OWRRI WATER RESEARCH SYMPOSIUM

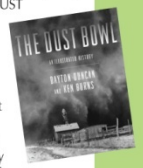
NOVEMBER 13-14, 2012

TULSA MARRIOT SOUTHERN HILLS

WATER FOR 2060
EFFICIENCY - CONSERVATION - RECYCLING - REUSE

DAYTON DUNCAN
Keynote Speaker

Dayton Duncan is an award-winning writer and documentary filmmaker. He served as principal writer for THE DUST BOWL, a two-part series airing November 18 and 19 on PBS. The series chronicles the worst man-made ecological disaster in American history, in which the frenzied wheat boom of the "Great Plow-Up," followed by a decade-long drought during the 1930s nearly swept away the breadbasket of the nation. Vivid interviews with twenty-six survivors of those hard times, combined with dramatic photographs and seldom seen movie footage, bring to life stories of incredible human suffering and equally incredible human perseverance. It is also a morality tale about our relationship to the land that sustains us—a lesson we ignore at our peril.



2012 OKLAHOMA WATER PIONEERS

The Oklahoma Water Pioneer Award was initiated in 1985 to honor the individuals who have made significant contributions in the planning, development, management, and conservation of Oklahoma's water resources.

Ed Brocksmith

Ronn Cupp

Phil Richardson

Tuesday, November 13

8:00 Registration & OWRRI Poster Viewing

8:30 PLENARY SESSION — Salon A-E, First Floor

Welcome
Ford Drummond, OWRB Chairman & Dewey Bartlett, Jr., Mayor of Tulsa
Keynote: The Dust Bowl, Lessons from the Land
Dayton Duncan, Writer/Producer/Filmmaker
Water for 2060 & Beyond
J.D. Strong, OWRB Executive Director

10:00 Break & OWRRI Poster Viewing

10:20 INNOVATIONS IN WATER CONSERVATION, EFFICIENCY, & REUSE — Salon B-D, First Floor

The San Antonio Example
Karen Guz, Director of Conservation, San Antonio Water System
Water Supply and Uses: The Reality in 2012
Karl Stickley, P.E., Guernsey Engineering
Kevin Alexander, P.E., Separation Processes, Inc.
Conserving Water at a Dairy Farm
Anita Van der Laan, Frederick, OK

10:20 SESSION 1: UPDATES AND NEW DEVELOPMENTS — Silver Oak Room, Second Floor

Session Chair: Derek Smithee, OWRB
Mitigated Creek Turnpike Wetlands: Twenty Years Later; Success or Succession?
Hal Reed, ORU
Riparian Songbirds as Indicators of Watershed Condition
Timothy O'Connell, OSU
Hydrologic Investigation of the Rush Springs Aquifer
Chris Neel, OWRB
Introducing the New South Central Climate Science Center
Kim Winton, USGS-SCCSC

Noon LUNCHEON — Sequoia Room, Second Floor

State & Federal Partnerships for a Shared Water Future
Bill Werkheiser, Associate Director for Water, US Geological Survey
Oklahoma Water Pioneer Awards
Presented by Ford Drummond & J.D. Strong

1:30 INNOVATIONS IN WATER CONSERVATION, EFFICIENCY, & REUSE — Salon B-D, First Floor

Water as a Crop
Ken Klaveness, Executive Director, Trinity Waters
Energy Water Conservation & Recycling
Richard Luedecke, Devon Energy
Conserving Water through No-Till Farming
Jay Franklin, Vinita, OK

1:30 SESSION 2: EFFECTS OF RED CEDAR ENCROACHMENT ON WATER QUANTITY — Silver Oak Room, Second Floor

Session Chair: Mike Fuhr, The Nature Conservancy
Introduction and Throughfall, Interception, and Stemflow Results
Don Turton, OSU
Watershed Infiltration, Soil Water Dynamics, and Stream Flow
Chris Zou, OSU
Water Use of Individual Red Cedar Trees
Rodney Will, OSU
Invasive Species Public Policy: Eastern Red Cedar Management, Options & Consequences
Larry Sanders, OSU

3:00 Break, Rainfall Simulator Demonstration (Greg Scott, NRCS), & OWRRI Poster Viewing

3:20 ROUNDTABLE DISCUSSION: REGIONAL WATER PLANNING — Salon B-D, First Floor

Moderator: J.D. Strong, OWRB
Fred Fischer, Oklahoma Panhandle Water Planning Group
Carolyn Brittin, Texas Water Development Board
Brian Woodard, Oklahoma Independent Petroleum Association
Amy Ford, Citizens for the Protection of the Arbuckle-Simpson Aquifer

3:20 SESSION 3: THE 2010-2012 OKLAHOMA DROUGHT — Silver Oak Room, Second Floor

Session Chair: Jason Lewis, USGS-WSC
Evolution and Persistence of the 2010-2012 Drought in Oklahoma
Gary McManus, OU
Hydrologic Drought of Water Year 2011 Compared to Four Major Drought Periods of the 20th Century in Oklahoma
Bill Andrews, USGS-Water Science Center
Soil Moisture-Based Drought Monitoring in Oklahoma
Tyson Ochsner, OSU
Impacts and Responses to the Drought
Dave Shideler, OSU

5:00 Reception & OWRRI Poster Viewing

CONTINUING LEGAL EDUCATION (CLE) SESSIONS, OBA ENVIRONMENTAL LAW SECTION — Sycamore Room, Second Floor

10:30	Cool Water: Texas, Tribes, and Comprehensive Plans--Implications of Three Current Water Disputes, Drew Kershen
12:00	Luncheon (Sequoia Room)
1:30	Current Issues from the Perspective: Oklahoma Municipalities, Ken Williams
2:30	Section 404 of the Clean Water Act, Permitting Requirements and Authority, Shane Charleston and Jeri Fleming Section 401 Water Quality Certification, Mark Derschwiler and Jeri Fleming
3:30	In-Stream Flows and Non-Consumptive Uses of Water in Oklahoma, Dean Couch
4:30	Adjourn

Wednesday, November 14

8:00 OWRRI Poster Viewing

8:30 PLENARY SESSION — Salon A-E, First Floor

Welcome
Ford Drummond, OWRB Chairman & Gary Sherrer, Oklahoma Secretary of Environment
Partnerships in Sustainability
Curt Brown, Bureau of Reclamation
Brian Richter, The Nature Conservancy

10:00 Break & OWRRI Poster Viewing

10:20 IMPLEMENTING OCWP PRIORITIES: MONITORING & INFRASTRUCTURE — Salon B-D, First Floor

Water Monitoring & Analysis
Derek Smithee & Julie Cunningham, OWRB
Water/Wastewater Financing Solutions
Joe Freeman, OWRB
Ann Burger Entrekin, FirstSouthwest
Chris Cochran, BOSC, Inc.

10:20 SESSION 4: WATER QUALITY AND NUTRIENT MANAGEMENT — Silver Oak Room, Second Floor

Session Chair: Claude Bess, OK Cooperative Extension Service
Phosphorus Concentrations Have Been Declining in the Illinois River: Was It Point Sources, Farm-Level Nutrient Management, or What?
Brian Haggard, Univ. of Arkansas
Within-River Phosphorus Retention in the Illinois River: A Missing Piece in the Watershed Phosphorus Puzzle?
Helen Jarvie, Centre for Ecology & Hydrology, United Kingdom
Investigating Algal Response to Changing Phosphorus Concentrations in British Rivers Using Flume Mesocosms
Mike Bowes, Centre for Ecology & Hydrology, United Kingdom
Oklahoma's Poultry Waste Management Education Program
Josh Payne, OK Cooperative Extension Service

Noon LUNCHEON — Sequoia Room, Second Floor

The Blue Revolution
Cynthia Barnett, Author
OWRRI Poster Contest Winners
4-H Speech Contest Winners
Luke Chapman & Bayli Hyde

1:30 ROUNDTABLE DISCUSSION: INSTREAM/ENVIRONMENTAL FLOWS — Salon B-D, First Floor

Moderator: J.D. Strong, OWRB
Charlette Hearne, Oklahomans for Responsible Water Policy
Mike Fuhr, The Nature Conservancy
Drew Kershen, OU College of Law
Marla Peek, Oklahoma Farm Bureau

1:30 SESSION 5: WATER USE AND MANAGEMENT FOR ENERGY PRODUCTION — Silver Oak Room, Second Floor

Session Chair: Robert Puls, Oklahoma Water Survey, OU
Innovative Strategies for Management of Water in Unconventional Resource Projects
David Alleman, ALL Consulting
Old Oil Wells Verses New Water Wells: A Case Study
Patricia Billingsley, Oklahoma Corporation Commission
Estimating Freshwater and Saline Water Volumes Associated with Oil and Gas Production in Oklahoma, 2000 to Present
Kyle Murray, OU
Land Application of Drilling Mud
Chad Penn, OSU

3:00 Break

3:30 OWRB NOVEMBER MONTHLY MEETING — Salon A, First Floor

3:30 SESSION 6: ENVIRONMENTAL CHEMISTRY FOR WATER RESOURCE PROTECTION — Silver Oak Room, Second Floor

Session Chair: Jason Vogel, OSU
DOC Characterization for Surface Water Impoundments in Northeast Oklahoma
Brian Wintle, Professional Engineering Consultants
Mercury Exposure from Fish Consumption Among Recreational Fishers in the Grand Lake Watershed
Robert Lynch, OUHSC
Polycyclic Aromatic Hydrocarbons (PAHs) in Harvested Rainwater
Jason Vogel, OSU
Relation Between pH and Occurrence of Trace Elements and Radionuclides in Water from Private Wells, Central OK, 2011
Carol Becker, USGS-WSC

5:00 Adjourn

34th ANNUAL OKLAHOMA GOVERNOR'S WATER CONFERENCE & RESEARCH SYMPOSIUM

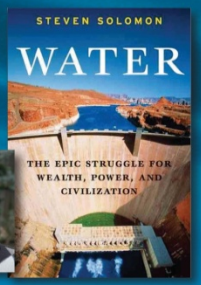
THE FUTURE ON TAP

October 22-23, 2013

Sheraton-Reed Conference Center

Midwest City, Oklahoma

Keynote Speaker: Steven Solomon



In *Water: The Epic Struggle for Wealth, Power, and Civilization*, Steven Solomon offers the first-ever narrative portrait of the power struggles, personalities, and breakthroughs that have shaped humanity from antiquity's earliest civilizations, the Roman Empire, medieval China, and Islam's golden age to Europe's rise, the steam-powered Industrial Revolution, and America's century. According to Solomon, freshwater scarcity is one of the twenty-first century's decisive, looming challenges and is driving the new political, economic, and environmental realities across the globe.

2013 Oklahoma Water Pioneers

Each year, the Oklahoma Water Pioneer Award is presented to those men and women who have made significant lifetime contributions to the planning, development, management, and conservation of Oklahoma's water resources. This year's recipients are Bob Blazs and Patty Eaton.

Bob Blazs served for two decades as Data Chief and Assistant District Chief of the U.S. Geological Survey's Oklahoma District. In 2010, he was appointed by the President as Federal Commissioner to the Canadian River Compact. He retired from the USGS in 2010 after more than 43 years of service.

Patty Eaton was Oklahoma's first Secretary of Environment, serving jointly as Executive Director of the Oklahoma Water Resources Board (1990-95). She is a long-time board member of the Tulsa Metropolitan Utility Authority, and served six years as the Tulsa Water and Sewer Commissioner.

Water for 2060

With passage of the "Water For 2060 Act" in 2012, Oklahoma established a goal of consuming no more fresh water in 2060 than is consumed today, reflecting a fundamental Oklahoma Comprehensive Water Plan (OCWP) recommendation. For more information, please visit www.owrb.ok.gov/2060.

Tuesday, October 22

7:30 Registration & Oklahoma Water Resources Center Poster Viewing

8:30 PLENARY SESSION — Reed Ballroom D-E-F, Second Floor
- **Welcome**
  Rudy Herrmann, Chairman, Oklahoma Water Resources Board
  Lt. Governor Todd Lamb
- **Water Issues in Region Six**
  Ron Curry, Administrator, EPA Region Six
- **Keynote: *Water: The Epic Struggle for Wealth, Power, and Civilization***
  Steve Solomon, Author

10:00 Break, Book Signing, & OWRC Poster Viewing

10:30 WATER FOR 2060: PREPARING FOR THE NEXT DROUGHT — Reed Ballroom D-E-F, Second Floor
- **Drought Impacts and Outlook**
  Veva Deheza, National Integrated Drought Information System
- **Drought Mitigation Tools**
  Collins Balcombe, Bureau of Reclamation
- **Minimizing Drought Impacts through the Water Plan**
  J.D. Strong, OWRB Executive Director

10:30 SYMPOSIUM SESSION 1: UPDATES AND NEW DEVELOPMENTS — Reed Ballroom C, Second Floor
- **Session Chair: Derek Smithee, OWRB**
- **Strategies for Compliance with Disinfectants & Byproducts Rule in WTP**
  Dr. Brian Wintle, Professional Engineering Consultants
- **How the Corporation Commission Can Help RWD and Town Water Systems**
  Patricia Billingsley, Oklahoma Corporation Commission
- **The Changing Dynamics of Oklahoma Water**
  Ken Senour and Larry Roach, Guernsey
- **Water Research Issues in Hydraulic Fracturing: The Economist Perspective**
  Dr. Larry Sanders, OSU

12:00 LUNCHEON — Exhibit Hall, First Floor
- **Luncheon Address**
  Michael Teague, Oklahoma Secretary of Energy & Environment
  Col. Richard A. Pratt, Tulsa District Engineer, U.S. Army Corps of Engineers
- **Oklahoma Water Pioneer Awards**

1:30 OKLAHOMA WATER MAGAZINE — Reed Ballroom D-E-F, Second Floor
- **Navigation in Oklahoma**
  Bob Portiss, Tulsa Port of Catoosa
- **Water Provider Issues & State Question 764**
  Bill Sims, Oklahoma Rural Water Association
- **Water for Recreation & Tourism**
  Gene Gilliland, Oklahoma Department of Wildlife Conservation
- **OCWP Instream Flow Workgroup**
  John Rehring, Carollo Engineers, Inc.
- **Groundwater Monitoring Assessment Program**
  Derek Smithee, OWRB

1:30 SYMPOSIUM SESSION 2: AQUATIC SPECIES — Reed Ballroom C, Second Floor
- **Session Chair: Dr. Jim Long, US Fish & Wildlife Service/OSU**
- **Effects of Water Quantity on Fish Communities in the Upper Cimarron River**
  Dr. Jim Long, US Fish & Wildlife Service/OSU
- **Mercury Exposure from Fish Consumption Among Fishers in Grand Lake**
  Dr. Robert Lynch, OU Health Sciences College
- **Freshwater Mussels and Environmental Flows in Southeastern Oklahoma**
  Dr. Caryn Vaughn, Oklahoma Biological Survey/OU
- **Water Quantity and Quality Impacts to an Economically Important Fishery**
  Jim Burroughs, ODWC

3:00 Break & OWRC Poster Viewing

3:30 ROUNDTABLE DISCUSSION — Reed Ballroom D-E-F, Second Floor
- **Conjunctive Water Management**
- **Moderator: J.D. Strong**
  Nathan Kuhnert, Devon Energy Corporation
  John K. Simpson, Attorney, Boise, Idaho
  Jerry Wiebe, Farmer/Rancher, Hooker, Oklahoma
  Will Archer, Mountain Park Master Conservancy District

3:30 SYMPOSIUM SESSION 3: GROUNDWATER — Reed Ballroom C, Second Floor
- **Session Chair: Mr. David Mott, USGS Oklahoma Water Science Center**
- **Hydrologic Investigation Update of the Rush Springs Aquifer**
  Chris Neel, OWRB
- **Sustainability of Oklahoma Groundwater Systems: Climate Versus Human Impact**
  Dr. Kyle Murray, Oklahoma Geological Survey/OU
- **Fate of Nitrate in the Capillary Fringe and Shallow Groundwater of a Sandy Soil**
  Dr. Sergio Abit, OSU
- **Hydrogeology, Distribution & Volume of Saline Groundwater, South Midcontinent U.S.**
  Noel Osborn, National Park Service

5:00 Reception & OWRC Poster Viewing

CONTINUING LEGAL EDUCATION (CLE) SESSION, OBA ENVIRONMENTAL LAW SECTION — Reed Ballroom A-B, Second Floor
- 10:30 Michael C. Wofford: Confluence of Water Quality & Water Supply Issues in Oklahoma
  Matt Caves: Stormwater vs. Storm water
  Dean Couch: Update on the Tarrant County and Supreme Court Decision
- 12:00 Luncheon
- 1:30 Janet Stewart: Oklahoma's Flood Control Structures
  Brooks Trammel: Wetlands in Oklahoma
- 3:00 Adjourn

Wednesday, October 23

7:30 Registration

8:30 PLENARY SESSION — Reed Ballroom D-E-F, Second Floor
- **Welcome**
  Rudy Herrmann, OWRB Chairman
- **Legal Update**
  Scott Pruitt, Oklahoma Attorney General
- **Legislative Developments**
  Sen. Brian Bingman, President Pro Tempore
- **Developing Sustainable Water Systems**
  Sharlene Leurig, Ceres

10:00 Break

10:30 WATER FOR 2060: BREAKTHROUGHS IN WATER SUSTAINABILITY — Reed Ballroom D-E-F, Second Floor
- **Partnerships in Conservation**
  Jon Radtke, Coca-Cola North America
- **Conservation as a Water Supply Solution**
  Greg Fisher, Denver Water
- **Oil & Gas Production Water Recycling**
  John Tintera, Sebree & Tintera

10:30 SYMPOSIUM SESSION 4: WATER AND SOIL CONSERVATION — Reed Ballroom C, Second Floor
- **Session Chair: Shanon Phillips, Oklahoma Conservation Commission**
- **Sediment and P Loads from Streambank Erosion in the Illinois Watershed**
  Dr. Garey Fox, OSU
- **Water Use in Ada, Oklahoma During 2011 and 2012**
  Dr. Jim Weaver, EPA
- **Identification of the Source(s) of Fecal Contamination in Oklahoma**
  Dr. Yuerning Lu, OU
- **Using R to Analyze Data from Probabilistic Monitoring in Oklahoma**
  Jean Lemmon, Oklahoma Conservation Commission

12:00 LUNCHEON — Exhibit Hall, First Floor
- **Luncheon Address: The End of Abundance**
  Dr. David Zetland, Author
- **OWRC Poster Contest Winners**
- **4H Speech Contest Winners**
  Bayli Hyde and Blair Peoples

1:30 ROUNDTABLE DISCUSSION: OUT-OF-BASIN WATER TRANSFERS — Reed Ballroom D-E-F, Second Floor
- **Moderator: J.D. Strong**
  Jeff Converse, Canton Lake Association
  John Collison, Oklahoma Farm Bureau
  David Taylor, Waurika Lake Master Conservancy District
  Greg Fisher, Denver Water

1:30 SYMPOSIUM SESSION 5: WATER REUSE — Reed Ballroom C, Second Floor
- **Session Chair: Dr. Bob Puls, Oklahoma Water Survey**
- **Quantifying the First Flush in Rooftop Rainwater Harvesting**
  Jessica Lay, OSU
- **Water Reuse: A Regulatory Overview**
  Patty Thompson, ODEQ
- **Challenges and Advancements in Produced Water Reuse and Recycling**
  Matt Mantell, Chesapeake Energy
- **Advancing Indirect Potable Reuse in Oklahoma: Strategies for Reducing Biochemically-Active Pollutant Loads in Drinking Water Supplies**
  Michael Graves, Garver Consultants

3:00 Break (Water Conference adjourns)

3:30 OWRB October Monthly Board Meeting — Reed Ballroom A-B, Second Floor

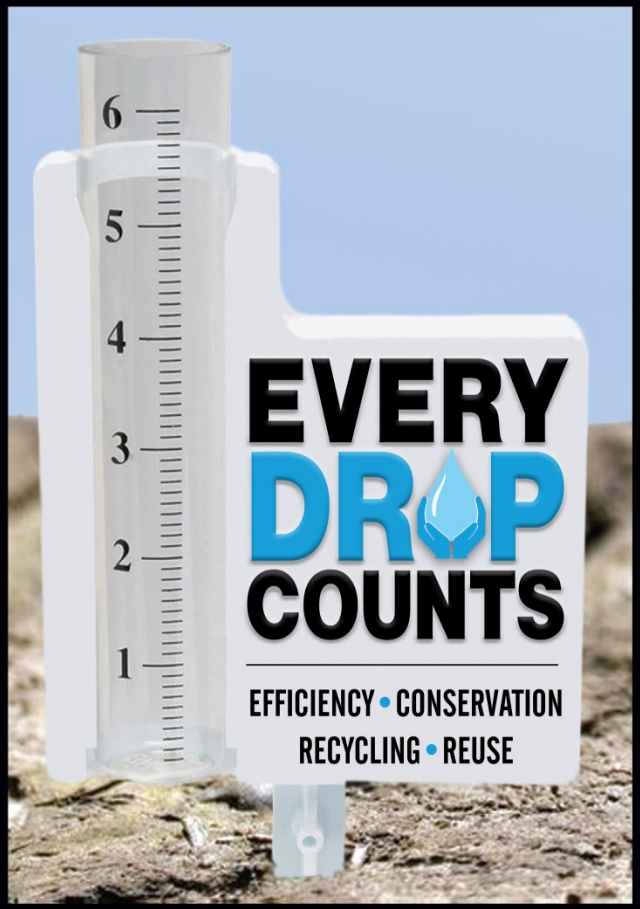
3:30 SYMPOSIUM SESSION 6: WEATHER AND CLIMATE — Reed Ballroom C, Second Floor
- **Session Chair: Gary McManus, Oklahoma Climatological Survey**
- **New Weather Analysis Tools**
  Albert Sutherland, OSU
- **OKC Outdoor Water Conservation Education Program**
  Dr. Justin Moss, OSU
- **Sorghum and Corn Production on Limited Water Supply in the Panhandle**
  Dr. Jason Warren, OSU
- **Taking the Long View: Adapting to the Risk of Increasing Frequency and Severity of Drought in Oklahoma**
  Dr. Duncan Wilson, OSU

5:00 Adjourn

35th Annual

Oklahoma

Governor's Water Conference & Research Symposium



October 22-23, 2014

Cox Convention Center, Oklahoma City

October 22, 2014

7:30 Registration

8:30 Plenary Session *Great Hall C*

Welcome and Introductions
Rudy Herrmann, Chairman, Oklahoma Water Resources Board
Oklahoma Lieutenant Governor Todd Lamb

Keynote: The Las Vegas Story: Adapting to a New Normal
Pat Mulroy, Senior Fellow, Climate Adaptation & Environmental Policy, Brookings Mountain West; Maki Distinguished Faculty Associate, Desert Research Institute

State of the State's Water
J.D. Strong, Executive Director, Oklahoma Water Resources Board

10:00 Break and Exhibits *Great Hall D & E*

Lt. Gov. Todd Lamb

Oklahoma Lieutenant Governor Todd Lamb was elected to office in November of 2010. Prior to his election, he served for six years in the Oklahoma Senate, and in 2009 became the state's first Republican Majority Floor Leader. In addition to serving as Chairman of the state's Tourism and Recreation Commission, he serves as Past Chairman of the National Lieutenant Governor's Association Executive Committee, Vice Chair of the Republican Lieutenant Governor's Association (RLGA), and Vice Chair of the Aerospace States Association.

Pat Mulroy

Pat Mulroy served as general manager of the Las Vegas Valley Water District from 1989 until retirement in 2014. From 1993 until retirement she also served as general manager of the Southern Nevada Water Authority (SNWA), where she was responsible for acquiring, treating, and delivering water to the region. Mulroy was a principal architect of the Authority, which allowed Southern Nevada not only to weather the stresses of growth, but also to thrive during one of the worst droughts of record in the Colorado River basin.

10:30 Regional/Local Planning for Future Droughts *Meeting Rooms 16-18*
Kim Meek, City Manager, City of Guymon
Ken Komiske, Director of Utilities, City of Norman
Will Archer, Manager, Mountain Park Master Conservancy District
Robert Moore, General Manager, Marshall County Water Corporation
Brent Kisling, Executive Director, Enid Regional Development Alliance

12:00 Lunch *Great Hall C*

Oklahoma Water Pioneer Awards
Jack W. Keeley
Mike Thralls

U.S. Congressional Update
Rep. James Lankford
Rep. Frank D. Lucas
Rep. Markwayne Mullin

Rep. Lankford

Rep. Lucas

Rep. Mullin

1:30 Oklahoma Drought Update *Meeting Rooms 16-18*
Gary McManus, Oklahoma State Climatologist
Kevin Kloesel, Director, Oklahoma Climatological Survey

2:15 Meeting Water Reuse Challenges *Meeting Rooms 16-18*

Developing an Effective PR Campaign
Patricia Tennyson, Katz & Associates

Legal and Regulatory Hurdles for Wichita Falls, TX
Brad Castleberry, Lloyd Gosselink

3:00 Break and Exhibits *Great Hall D & E*

3:30 Oklahomans Solving Global Water Crises *Meeting Rooms 16-18*
David Sabatini, Director
OU Water Technologies for Emerging Regions (WaTER) Center
Ken Surritte, President
WATERisLIFE
Richard Greenly, Board Chair
Water4

5:00 Reception *Great Hall D & E Foyer*

October 23, 2014

7:30 Registration

8:30 Plenary Session *Great Hall C*

Welcome and Introductions
Rudy Herrmann, Chairman, Oklahoma Water Resources Board
Michael Teague, Oklahoma Secretary of Energy & Environment

Keynote: Governor Mary Fallin

Federal Updates
James Allard, Deputy Area Manager
United States Bureau of Reclamation, Oklahoma-Texas Area Office
Colonel Richard Pratt, Commander & District Engineer
United States Army Corps of Engineers, Tulsa District
Sam Coleman, Deputy Regional Administrator
United States Environmental Protection Agency, Region 6

10:00 Break and Exhibits *Great Hall D & E*

Governor Mary Fallin

Oklahoma elected Mary Fallin as its first female governor in 2010. Prior to her election, she served two terms in the U.S. House of Representatives. She also served two terms as an Oklahoma state representative before her election in 1995 as Oklahoma's first Republican and first female lieutenant governor.

Governor Fallin demonstrated her dedication to the stewardship of Oklahoma's invaluable water resources by signing the Water for 2060 Act into law and more recently by pledging $1.5 million in drought grants for projects highlighting responsible use of water.

James Allard

Col. Richard Pratt

Sam Coleman

10:30 Water Fuels Oklahoma's Economy *Meeting Rooms 16-18*
Larry Parman, Oklahoma Secretary of Commerce
Michael Teague, Oklahoma Secretary of Energy & Environment
Blayne Arthur, Deputy Commissioner
Oklahoma Department of Agriculture, Food & Forestry
Scott Robinson, Port Director, Port of Muskogee
Kris Marek, State Parks Director
Oklahoma Tourism and Recreation Department
Ken Cunningham, Assistant Chief of Fisheries
Oklahoma Department of Wildlife Conservation

12:00 Lunch *Great Hall C*

4-H Speech Contest Winners
Hadley Griffith, Pottawatomie County
Bayli Hyde, Alfalfa County

Poster Contest Winners

High frequency water quality data: is this really necessary?
Dr. François Birgand, Associate Professor, North Carolina State University

1:30 Water Rights Administration in Oklahoma: Broken or Just Right? *Meeting Rooms 16-18*
Dean A. Couch, Esq., GableGotwals
James R. Barnett, Esq., Doerner, Saunders, Daniel & Anderson
Mike Fuhr, State Director, The Nature Conservancy, Oklahoma Chapter
Mike Mathis, Regulatory Affairs Adviser, Continental Resources
Will Archer, Manager, Mountain Park Master Conservancy District

2:45 Conference Wrap-Up *Meeting Rooms 16-18*
Rudy Herrmann, Chairman, Oklahoma Water Resources Board

3:00 Adjournment

3:30 Monthly OWRB Meeting *Meeting Rooms 14-15*

36th Annual Oklahoma Governor's Water Conference and Research Symposium

DROUGHT-PROOFING OKLAHOMA

December 1-2, 2015

Embassy Suites Hotel & Conference Center
Norman, Oklahoma

Tuesday, December 1

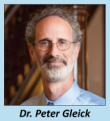
7:30 Registration

8:30 Joint Session — Oklahoma Ballroom A-E

Welcome
Linda Lambert, OWRB Chairman

Keynote
Dr. Peter Gleick, President and Co-Founder of the Pacific Institute

Water for 2060 Overview
J.D. Strong, OWRB Executive Director


Dr. Peter Gleick

Dr. Peter Gleick is a world renowned expert, innovator, and communicator on water and climate issues. In 1987 he co-founded the Pacific Institute, a global water think tank that provides science-based thought leadership with active outreach to influence local, national, and international efforts in developing sustainable water policies.

10:15 Break

10:30 Regional Water Planning — University Ballroom

Northwest Oklahoma Water Action Plan
Brent Kisling, Executive Director, Enid Regional Development Alliance

Southwest Oklahoma Water Supply Action Plan
Brian Bush, President and CEO, Altus Chamber of Commerce

Regionalization

South Delaware County Regional Water Authority
Jay Updike, President, Holloway, Updike and Bellen, Inc.

Gore & Sequoyah County Rural Water District #5
Horace Lindley, Public Works Administrator, City of Gore

10:30 Café Style Poster Session — Oklahoma Ballroom I-J

Moderator: Dr. Garey Fox, Director, Oklahoma Water Resources Center

Samia Amiri	Saroj Kandel	Andres Patrignani
Caitlin Barnes	Anish Khanal	Jason Patton
Nicole Colston	Kate Klavon	Renato Rahal
Jon Daniels	Whitney Lisenbee	Solmaz Rasoulzadeh Gharibdousti
Curt Dikes	Dustin Livingston	Reuben Reyes
Jingnuo Dong	Beatriz Mazziero	Bharat Sharma Acharya
Holly Enlow	Alex McLemore	Ben Tong
Paul Flanagan	John McMaine	Briana Wyatt
Riley Jones	Michelle Melone	Yan Zhou

Go to www.owrb.ok.gov/GWC/mobile/posters.html to view poster titles.

12:00 Luncheon — Oklahoma Ballroom A-E

Legislative Update
Mike Schulz, Majority Floor Leader
Oklahoma State Senate

Oklahoma Water Pioneer Awards
Richard C. Seybolt
Bill Sims

Honorary Oklahoma Water Pioneer Awards
Bob Chipman and Trudy Rigney, In Memoriam

Senator Mike Schulz

Richard Seybolt

Bill Sims

1:30 Conservation in Other States — University Ballroom

Advancing Conservation Goals: the San Antonio Example
Karen Guz, Conservation Director, San Antonio Water System (SAWS)

Innovative Conservation Approaches in Southern Nevada
Doug Bennett, Conservation Manager, Southern Nevada Water Authority

Vision for the Future of Water in Kansas
Tracy Streeter, Director, Kansas Water Office

1:30 Drought and Climate Change — Oklahoma Ballroom I-J

Moderator: Al Sutherland, Mesonet Agricultural Coordinator, Oklahoma State University (OSU)

New Insights into Drought Evolution and Recovery in the Great Plains
Jeffrey Basara, University of Oklahoma (OU), Co-Authors: Jordan Christian & Katarina Christian

Drought-Influenced Low-Flow Non-Exceedance Plots for Selected US Geological Survey (USGS) Gauges in Oklahoma
Ron Miller, OSU, Co-Author: Garey Fox

Hydrogeology and Simulated Effects of Future Water Use and Drought for the North Fork Red River Alluvial Aquifer, Southwest Oklahoma
Jerrod Smith, US Geological Survey (USGS)

Threats to the Lugert-Altus Irrigation District: Untangling the Effects of Drought, Land Use Change, and Groundwater Development
Tyson Ochsner, OSU, Co-Authors: Erik S. Krueger & Yohannes Tadesse Yimam

Projecting Hydrologic Impacts on the Canadian River Ecosystem under Future Climate Change Scenarios
Baxter Vieux, OU, Co-Authors: William Andrews, Shannon Brewer, Thomas Worthington, Jonathan Kennen, & Jonathan Looper

3:00 Break

3:15 Joint Session — Oklahoma Ballroom A-E

Gubernatorial Welcome and Address
Governor Mary Fallin

Education and Outreach Campaigns for Water Conservation and Reuse
Ken Komiske, Utilities Department Director, City of Norman
Melissa Meeker, Executive Director, WateReuse Association
Justin Moss, Associate Professor, Oklahoma State University
Bret Weingart, Assistant Director, Oklahoma City Utilities

Poster Contest Winners
Dr. Garey Fox, Director, Oklahoma Water Resources Center

Governor Mary Fallin

Oklahoma elected Mary Fallin as its first female governor in 2010. She was reelected in 2014 to her second term by a 15-point margin, carrying 71 out of 77 Oklahoma counties. Prior to her election, she served two terms in the U.S. House of Representatives. She also served two terms as an Oklahoma state representative before her election in 1995 as Oklahoma's first Republican and first female lieutenant governor.

5:00 Reception

Hosted by the Oklahoma Rural Water Association and sponsored by Bank of America/Merrill Lynch and Mustang Brewing Company

Wednesday, December 2

8:00 Registration

8:30 Joint Session — Oklahoma Ballroom A-E

Welcome
Michael Teague, Oklahoma Secretary of Energy and Environment

Federal Partnerships
Col. Richard Pratt, Tulsa District Engineer, U.S. Army Corps of Engineers
Ron Curry, Region 6 Administrator, U.S. Environmental Protection Agency

Drought Report and Forecast
Courtney Black, National Integrated Drought Information System (NIDIS)
Gary McManus, Oklahoma State Climatologist

Sec. Michael Teague

Col. Richard Pratt

Ron Curry

10:15 Break

10:30 Drought-Proofing Gazette — University Ballroom

Water Loss Audits and Leak Detection
Brandon Bowman, Oklahoma Department of Environmental Quality
Richard Deshazo, Oklahoma Rural Water Association

Fort Sill Nonpotable Reuse Project
Ronnie Graves, General Manager, American Water

Energy Water Initiative Report: Recycling Flowback and Produced Water
Michael Dunkel, Vice President, CH2M

10:30 Water Availability, Demand, and Use — Oklahoma Ballroom I-J

Moderator: Dr. Saleh Taghvaeian, OSU

Is the demand for recreation at Grand Lake affected by swim warnings and do visitors value improvements in water conditions?
Max Melstrom, OSU, Co-Authors: Tracy Boyer, Susan Brand, & Art Stoecker

Water Reservoir Data Visualization Tool
Margret Boone, OU

Hydrologic Investigation and Numerical Groundwater-Flow Model of the Canadian River Alluvial Aquifer
Shana Mashburn, USGS, Co-Author: John Ellis

Proximity of Private Domestic Wells and Underground Storage Tank Sites in Oklahoma
Jim Weaver, US Environmental Protection Agency (EPA), Co-Authors: Andrew Murray & Fran Kremer

Using Public Data to Quantify Oil and Gas Impact to Oklahoma's Water Resources
Glenn Brown, OSU, Co-Author: Nelly Ruiz

12:00 Luncheon — Oklahoma Ballroom A-E

4-H Speech Contest Winners
Bayli Hyde and Tyler Zwink

Assessing the Future of the High Plains Aquifer
James Butler, Jr., Kansas Geological Survey

1:30 Aquifer Storage and Recovery (ASR) — University Ballroom

Wichita's Equus Beds ASR Experience
Brian Meier, Associate Environmental Engineer, Burns & McDonnell

A Texas Regulator's Perspective
Dr. Robert Mace, Deputy Executive Administrator, Texas Water Development Board

ASR Challenges in Oklahoma
Dan Yates, Associate Executive Director, Groundwater Protection Council

A National Perspective on ASR
David Pyne, President, ASR Systems

1:30 Research Funding and Partnership Opportunities — Oklahoma Ballroom I-J

Moderator: Dr. Garey Fox, OWRC

Bureau of Reclamation (USBOR) Research Funding and Partnerships Opportunities
Collins Balcombe, USBOR

USGS Research Needs in Oklahoma
William Andrews, USGS

Oklahoma Water Resources Board (OWRB) Research Needs
Derek Smithee, OWRB

EPA's Safe & Sustainable Water Resources Research Program
Joe Williams, EPA

USGS 104b and 104g Funding Opportunities
Garey Fox, OWRC

Research Funding Highlight in Oklahoma

Moderator: Dr. Garey Fox, OWRC

The Influence of Crop Row Configuration on Yield using Subsurface Drip Irrigation
Jason Warren, OSU

Maximizing the Value of Remaining Groundwater
Art Stoecker, OSU

3:00 Break

3:30 OWRB Regular Monthly Meeting (Sooner Meeting Room)

3:30 Featured Session on NSF EPSCoR Project — Oklahoma Ballroom I-J

Moderator: Emma Kuster, Program Coordinator, OK EPSCoR

Integrating Socio-Cultural Community-Level Research into Water and Climate Research in Oklahoma's 2013-18 NSF EPSCoR Research
Jack Friedman, OU, Co-Authors: Michael Stanton, Tony VanWinkle, & Miriam Laytner

Groundwater Shortage as a Result of Drought in Oklahoma and Potential Socio-Economic Implications
Jad Ziolkowska, OU, Co-Author: Reuben Reyes

Water Policy and Governance Networks in OK: A Pathway to Enhance Resilience to Climate Change
Beth Caniglia, OSU, Co-Authors: Beatrice Frank, Bridget Kerner, & Tammy Mix

Demand for Water-based Recreation: The Impact of Water Levels and Climate Variation in Oklahoma
Tracy Boyer, OSU, Co-Authors: Max Melstrom, Larry Sanders, & Brannon Daniels

Dynamic Maps of Open Surface Water Bodies in Oklahoma at 30-m Spatial Resolution during 1984-2014
Xiangming Xiao, OU, Co-Authors: Michael Menarguez, Jinwei Dong, & Zhenhua Zou

37th Annual Oklahoma Governor's Water Conference & Research Symposium

Weathering Oklahoma's Extremes

October 11-12, 2016

Tuesday, October 11

8:00 Registration

8:30 Opening Session — Oklahoma Ballroom E-F

Welcome
Linda Lambert, Chairman, Oklahoma Water Resources Board

State of Oklahoma, Choctaw Nation of Oklahoma, Chickasaw Nation, City of Oklahoma City Water Settlement
Governor Mary Fallin, State of Oklahoma
Chief Gary Batton, Choctaw Nation

Water Settlement Roundtable
Michael Burrage, Attorney for the Choctaw & Chickasaw Nations and former Federal District Court Judge
Stephen Greetham, General Counsel to the Chickasaw Nation Department of Commerce
Glenn Coffee, Special Counsel to Governor Mary Fallin and former Secretary of State
Mike Hunter, First Assistant Attorney General, State of Oklahoma
J.D. Strong, Executive Director, Oklahoma Water Resources Board

10:00 Break

10:15 Regional Water Planning Roundtable — Oklahoma Ballroom G-J

David Berrong, Mayor-Elect, Clinton, OK
Foss Reservoir Master Conservancy District
Jed Winters, Water Task Force Co-chair
Southwest Water Supply Action Plan
Alan Riffel, City Manager, Woodward, OK
Northwest Oklahoma Water Action Plan
Cody Holcomb, City Manager, Ada, OK
Arbuckle-Simpson Drought Contingency Plan

10:15 Café Style Poster Session — Oklahoma Ballroom A-D

Moderator: Dr. Garey Fox, Director, Oklahoma Water Resources Center

Riley Jones	Beatriz Gallucci Mazziero	Sonisa Sharma
Yan Zhou	Jon Daniels	Curt Dikes
Melissa Reed	Charles Fontanier	Nelly Ruiz
Holly Enlow	Karthik Ramaswamy	Manabendra Saharia
Adrian Saenz	Kathryn Wenger	Russell Doughty
Joanna Quiah	Andrew Baird	Shuhao Yu
Alex McLemore	Chen Xu	Lexi Freeman
John McMaine	Briana Wyatt	

Visit GWC.live to view poster titles.

12:00 Luncheon — Oklahoma Ballroom E-F

Legislative and Executive Update
Michael Teague, Oklahoma Secretary of Energy and Environment
Bryce Marlatt, Oklahoma State Senate
Congressman Tom Cole

Oklahoma Water Pioneer Awards
Robert Henry, President, Oklahoma City University
Frank Keating, Governor of Oklahoma, 1995-2002

2:00 Water for 2060 Magazine — Oklahoma Ballroom G-J

Overview
JD Strong, OWRB

Produced Water Working Group Update
Michael Dunkel, CH2M

Showcase of Other Initiatives
John Rehring, Carollo

2:00 Climate Variability and Drought — Oklahoma Ballroom A-D

Moderator: Phil Alderman, Oklahoma State University (OSU)
Rainfall Timing Extremes, Albert Sutherland, Oklahoma Mesonet/OSU
Estimating Drought-Influenced Streamflow Exceedance Curves in Oklahoma, Ronald Miller, OSU
Forests Bring Water to Oklahoma, Holden Zhang, The University of Tulsa
Current State of Climate Education in the United States: Are Graduate Students Being Adequately Prepared to Address Climate Issues? Emma Kuster, Oklahoma EPSCoR/OSU

3:15 Break

3:30 Joint Session — Oklahoma Ballroom E-F

Keynote: Our Future in a Water-Stressed World
Dr. Robert Glennon, University of Arizona

Poster Contest Winners

4-H Speech Contest Winners

5:00 Reception

Wednesday, October 12

8:00 Registration

8:30 Opening Session — Oklahoma Ballroom E-F

Welcome
Linda Lambert, Chairman, Oklahoma Water Resources Board

Keynote: Why We Don't Understand Drought
Damon Lane, Chief Meteorologist, KOCO 5 First Alert Weather

State and National Outlook
Gary McManus, State Climatologist

Climate Monitoring and Prediction Tools
Dr. Derek Arndt, NOAA/NCEI Climate Monitoring Chief

10:00 Break

10:15 Partners in Drought and Flood — Oklahoma Ballroom G-J

Col. Christopher Hussin
Commander/District Engineer
USACE Tulsa District

Bill Honker
EPA Region 6 Water Division Director

Collins Balcombe
USBR Supervisory Program Coordinator

10:15 Stormwater and Streamflow — Oklahoma Ballroom A-D

Moderator: Lucie Guertault, OSU
No Adverse Impact: The State of the Art in Stormwater Management, Ronald Flanagan, Flanagan & Associates, LLC
Evaluation of aged, fly ash amended filter media to remove phosphorous from stormwater, Glenn Brown, OSU
Non-contact remote sensing of streamflow, Jonathan Gourley, NOAA/National Severe Storms Laboratory

Groundwater
Moderator: Ron Miller, OSU
Petroleum Release Assessment and Impacts of Weather Extremes, James Weaver, USEPA Office of Research and Development
Carbonate mineral dissolution drives hexavalent chromium occurrence in the Central Oklahoma Aquifer, Andrew Elwood Madden, University of Oklahoma (OU)
Groundwater and Soil Moisture: Indicators and Predictors of Long-Term Drought in Oklahoma, Jad Ziolkowska, OU

12:00 Luncheon — Oklahoma Ballroom E-F

Oklahoma Water Resources Center Updates and Announcements

Screening of "Thirsty Land" and Q&A with Producer/Director Conrad Weaver

2:00 Break

2:30 OWRB Monthly Meeting — Sooner

2:00 Reservoirs — Oklahoma Ballroom A-D

Moderator: Deidre Smith, Oklahoma Department of Transportation
Application of the 3D model ELCOM-CAEDYM to estimate phosphorus load reduction needs for Lake Wister, Oklahoma, Thad Scott, Baylor University
Assessing and mitigation source water cyanotoxin vulnerability, Steven D. Patterson, Bio x Design
Relationship Between Landsat Spectral Reflectance and Water Quality at Different Depths in Grand Lake, Oklahoma, Abubakarr Mansaray, OSU
Numerical modeling of sedimentation in Fort Cobb Reservoir, Lucie Guertault, OSU

3:15 Break

3:30 Irrigation, Recharge, and Reuse — Oklahoma Ballroom A-D

Moderator: Dave Lampert, OSU
Algal Wastewater Remediation, Nurhan Dunford, OSU
Regional Transfer vs. Water Reuse A Comparison of Cost, Energy, and GHG Emissions, Jim F. Chamberlain, OU
Western OK Irrigation Water and Energy Audits: Findings, Recommendations and Educational Materials - Preliminary Results, Robert Frazier, OSU
Application of Soil-Water-Balance Code to Estimate Aquifer Recharge in Truckee Meadows, Nevada for Groundwater Flow Modeling, Michael Keester, LBG-Guyton Associates
On-Farm Evaluation of Water Dynamics around Subsurface Drip Irrigation, Jason Warren, OSU

Keynote Speakers

Robert Glennon is one of the nation's preeminent experts on water policy and law. The recipient of two National Science Foundation grants, Glennon serves as an advisor to governments, corporations, think tanks, law firms, and NGOs looking to solve serious challenges around water sustainability and planning.

Glennon is the author of *Unquenchable: America's Water Crisis and What To Do About It*, which has become a go-to resource for environmental policy stakeholders nationwide. *Unquenchable* received a Rachel Carson Book Award for Reporting on the Environment from the Society of Environmental Journalists. He is also the author of *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters*.

In 2014, Glennon and two co-authors collaborated with the Hamilton Project at the Brookings Institution to explore solutions to broken federal and state laws that are contributing to worsening water shortages in California and other Western states. Their groundbreaking report, "Shopping for Water: How the Market Can Mitigate Water Shortages in the American West," received widespread national attention and is viewed by many as a game-changer for water policy moving forward.

In addition to leading KOCO's weather team, Damon Lane has served as a guest meteorologist for ABC's *Good Morning America* and is a frequently featured speaker at weather conferences around the country, where he shares his experience forecasting one of the nation's most active weather regions.

In 2016, Lane was featured in the nationally televised ABC *20/20* primetime special "In An Instant" about the 2013 tornado outbreak that impacted Moore, Oklahoma. He shared his personal experiences covering the 2013 tornado outbreak that impacted his home town of Moore. The massive tornado stuck his own neighborhood as he covered it live on-air. His wife rode out the storm in their shelter with the family dogs while many nearby homes were damaged or destroyed. Lane has been active in community recovery efforts ever since. His coverage of the Tornado Outbreak was nominated for an Emmy award.

Previously, Lane served as Chief Meteorologist at KTXS-TV in Abilene, TX, forecasting severe weather on the southern edge of "Tornado Alley." Lane was born and raised in Northern Virginia and was drawn to science and weather from a young age. Lane eared two bachelor degrees in college. After graduating in less than four years in Communications/Mass Media from Old Dominion University, Lane earned his Bachelor of Science in Atmospheric Sciences/Meteorology from The University of North Carolina, Asheville.

Water Pioneers

Robert Henry has long been involved with water issues in our state. While a member of the Oklahoma state legislature (from 1976 to 1986), he worked on water law under the mentorship of well-known Oklahoma Water Law expert and OU Law Professor Joe Rarick.

Henry was elected Attorney General of Oklahoma in 1986 and served until 1991. He led efforts to create the Environmental Awareness Council, which met regularly to monitor matters of environmental concern and to educate both the public and lawmakers about the importance of environmental issues in Oklahoma.

As Attorney General, Henry officially led the fight to preserve our state's scenic rivers from degradation. The City of Fayetteville had created a ten-mile canal that would be used to discharge its treated effluent, which would eventually end up in the Illinois River in Oklahoma. The battle led to a victory in the Tenth Circuit Court of Appeals but ended up in a divided decision at the U.S. Supreme Court. While the divided Supreme Court ultimately allowed Fayetteville to discharge its wastewater into the Illinois River watershed, the decision also established the precedent that upstream states must meet downstream states' water quality standards – a critically important factor in protecting water quality on interstate streams across the nation.

Frank Keating was sworn in as Governor of Oklahoma in 1995 and served two terms. In 1997, Keating formed the "Animal Waste and Water Quality Protection Task Force" -- a special task force he appointed that ultimately led to legislation to impose regulations on the state's growing commercial animal feeding operations in an effort to protect water quality. The resulting laws and regulations were recognized as the most stringent in the country at the time.

In 2000, Keating created the Tar Creek Superfund Task Force in order to gather facts and find solutions to the enormous environmental threats posed by the nation's most hazardous Superfund Site – the Tar Creek Superfund Site in northern Ottawa County. The task force's final report ultimately recommended relocation of the most impacted residents, as well as the use of constructed wetlands to expedite water quality improvement in Tar Creek and other tributaries of Grand Lake – a remediation effort that is still underway today.

In 2001, it was brought to the attention of Keating and other state leaders that the Illinois River's status as a Scenic River was seriously threatened by excess nutrients. Without intervention, the Illinois River's exceptional ecological and recreational significance was in jeopardy. In response, the Oklahoma Water Resources Board (OWRB) adopted in its Water Quality Standards a total phosphorus criterion of .037 mg/L for Scenic Rivers, which was consequently approved by Gov. Keating despite some controversy. Fifteen years later, this cutting-edge standard is being implemented, and water quality improvements have been measured in the Illinois River watershed.