

**WATER
CONFERENCE**

Preview



**Big Names Headline Governor's
Water Conference October 28!**

***Pre-election date invites candidates to share views
on state's water development and economic recovery***

Washington, D.C. decisionmakers in planning and developing new water supplies and setting water quality goals will share the spotlight with the "biggies" on the Oklahoma ballot at the Seventh Annual Governor's Water Conference.

Conference planners set the event two months ahead of its usual December date to give Oklahomans a chance to hear candidates address water issues and economic recovery. The theme of the 1986 conference is "Water: the Lifeblood of Economic Development." The day-long meeting will be held at the Lincoln Plaza Conference Center in Oklahoma City at

4445 North Lincoln Blvd.

Bringing water development expertise from the nation's capital will be Robert K. Dawson, Assistant Secretary of the Army for Civil Works and C.



Robert K. Dawson

Dale Duvall, Commissioner of the Bureau of Reclamation. Also invited to the agenda (but not confirmed at this writing) is Joseph Haas, Associate Chief of the Soil Conservation Service of the U.S. Department of Agriculture.

Joseph Farrell, president of the American Waterways Operators based in Washington, D.C., will sketch for conferees the economic successes of the nation's inland waterways. Farrell formerly served 12 years as an offi-

cer in the US Navy, director of the Peace Corps in Honduras and chief of staff to Sen. Charles Percy.

Assistant Secretary of the Army Dawson holds a Juris Doctorate degree from the Cumberland School of Law at Samford University, a B.S. degree in psychology and chemistry from Tulane, and attended Harvard University. Prior to his appointment to Assistant Secretary of the Army for Civil Works in December 1985, he had been Acting Assistant Secretary since May 1984.

Commissioner of Reclamation C. Dale Duvall was confirmed to the position by the U.S. Senate in December 1985. A CPA, Duvall had previously served as vice-president and treasurer of the Overseas Private Investment Corporation, directing all financial affairs of that self-supporting, government-owned corporation. Earlier he was White House Liaison for the

Continued on page 2



Gov. George Nigh



C. Dale Duvall

Conference, continued from page 1

Community Services Administration.

Also highlighting the morning session will be Dr. Francis Tuttle, Secretary of Oklahoma's newly created Department of Commerce, who will sketch steps necessary to achieve economic recovery from the state perspective.

Gov. George Nigh will preside at the luncheon session and honor 1986 Oklahoma Pioneers, an award created last year to recognize luminous careers in water resources. Twenty-three exceptional men and women were recognized at Water Pioneer award ceremonies at last year's conference.

Both gubernatorial candidates, Senator Don Nickles, Congressman Jim Jones and other members of the Oklahoma Congressional delegation have been invited to the post-luncheon podium to express their positions on water issues.

A reception Monday evening will welcome speakers and pre-registered conferees. The Conference is coordinated by Gov. Nigh's Office and the Oklahoma Water Resources Board and sponsored by 30 water-related organizations. It was created at the governor's request in 1980 to provide a forum for discussion of the state's water issues.

More information on the Seventh Annual Governor's Water Conference is available by calling Mary Whitlow or Brian Vance, OWRB conference coordinators, at (405) 271-2523.

Registration received before October 28 will cost \$20; paid on Conference day, \$25.

Board Lowers Loan Interest!

5.5% initial rate available on variable-interest loans

In an effort to be more competitive in the bond market, officials of the Oklahoma Water Resources Board recently traveled to New York and came away with a lower interest rate on its loan program for water and sewer improvements in the state.

On Wall Street were OWRB Executive Director James Barnett, Planning and Development Division Chief Walid Maher, Board General Counsel Dean Couch, OWRB Chairman Gerald Borelli and Board Secretary/Treasurer Ernest Tucker. The \$41.65 million of variable rate revenue bonds which were sold will provide for an initial loan rate of less than six percent. Interest on the bonds will be adjusted every six months according to the market rate, yet the interest rate on the bonds is guaranteed not to exceed 14 percent.

In July 1985 the Board completed the sale of a \$50 million package of revenue bonds that allowed the OWRB financial assistance program to make 25 year loans available at a fixed interest rate of 8.94 percent. This program, as with the new bond offering, allows cities, towns, rural water and sewer districts and other qualified applicants the financial means to construct or improve water and sewer projects.

The financial assistance program authorizes the OWRB to issue investment certificates or state revenue

bonds and establish a water resources fund from the bond sale proceeds. The Board then provides loans to qualified applicants. Project revenues or other forms of revenues are pledged as security. These revenues, in the form of loan payments, are paid to the Board and are used to retire the state bonds as they mature.

To date, the Board has approved five loans totaling approximately \$5.8 million. There are currently 35 applications on file requesting a total of \$24.8 million.

According to Maher, the financial assistance program has suffered due to falling interest rates.

"We have been trying to work out the new bond deal for several months, and I am extremely happy with the new interest rate," he said. "It will enable us to be much more competitive and, as a result, will allow eligible entities in the state to get much needed loans for water and sewer construction or repairs at a lower cost. These loans should be available very soon—we are just tying up a few loose ends on administering the new deal."

Maher stressed that the old loan program will still be available to applicants who prefer the fixed interest rate of 8.94 percent.

"Communities will now have a choice between the fixed and the variable interest rates. Because there are unique advantages to each, some entities will take advantage of both bond offerings."

Maher added that the Board's cost is much less than that of any community that conducts a bond sale independently. The Board already has absorbed the costs involved in the transaction, such as handling charges, insurance, etc.



ADVANCE REGISTRATION

Please clip and mail with \$20 check, money order or purchase order made payable to:

Governor's Water Conference
Oklahoma Water Resources Board, P.O. Box 53585
Oklahoma City, Okla. 73152

Name _____

Address _____

City _____ State _____ Zip _____

I will attend Monday's Early Bird Reception 6:30-8 p.m.



Sites Added to Superfund

The addition of 170 hazardous waste sites by the Environmental Protection Agency to the Superfund cleanup list has brought the total num-

ber of sites to 703 nationwide. The cleanup effort is focused on those sites throughout the U.S. which pose a threat to human health and the environment.

The agency has also added another 45 sites to its priority list. These may be tagged to the main Superfund list at a later date if EPA officials feel they warrant more concern.

The amended list includes 28 sites in New York, 15 in California, 14 in Minnesota, 11 in Texas and 10 in Pennsylvania. Although other states have recently closed the gap, New Jersey still has the highest total number of Superfund sites with 91.

Currently, Oklahoma has four sites on the Superfund cleanup list: Tar Creek in northeastern Oklahoma, Sand Springs Petrochemical and Compass Industries near Tulsa, and the Hardage hazardous waste disposal site in Criner, Oklahoma.

Carwash Reuses Water

An innovative franchised carwash operation claims a system that recaptures and reuses 75 to 80 percent of the washwater. And the company offers two other levels of more intensive water reuse. The first achieves a 90 percent reuse rate by using reclaim pits and filters. The other is a complete closed-loop water reclamation system that recycles all the water except for the fine mist that provides the final rinse.

Founder Dan Hanna said his first carwash site in 1953 had no sewer hookup, so necessity truly was the mother of invention. Today, Hanna is the world's largest manufacturer of carwash systems and claims race car driver Mario Andretti as its first franchise owner.

Fallout Traces Groundwater

A geohydrologist with the New Mexico Institute of Mining is currently using past radioactive fallout to determine recharge rates in area aquifers. Fred Phillips is the person responsible for utilizing a radioactive isotope, named chlorine-36, in the study of downward water movement beneath the New Mexico desert.

This particular isotope was formed

when radiation fallout from widespread nuclear testing done in New Mexico mixed with atmospheric chlorine from the ocean. The fallout, which occurred during 1954 to 1964, settled back down to earth in rain, snow and dust. The depth at which the chlorine-36 is found tells Phillips the rate at which surface water moves through the soil to groundwater basins. The isotope's rate of vertical movement determines the recharge rate of area aquifers since the time of the nuclear testing.

Knowing how fast water moves down to the water table, Phillips said, determines how fast groundwater is being replenished. Aquifer recharge rates are commonly used to set pollution controls and calculate pumping rates for state groundwater permits.

Chlorine-36 makes an excellent tracer element because of its solubility in the soil and its long half-life, or rate of decay. Many other isotopes decay so rapidly that they don't provide enough information for researchers.

Bottled, Bubbled, Flavored

Drinking water is a big business and there seems to be plenty of ingenuity in altering, if not improving, the original. Entrepreneurs seek to wean Americans from the tap in favor of flavored, sparkled and bottled varieties of water.

Backers of the "world's largest automated water-bottling plant" near Montreal, Quebec, hope to capture a share of the 1.4 billion-gallon American market, which is growing at the annual rate of 15 to 20 percent. The robotized plant fills 30,000 1.5 liter bottles a minute from an aquifer near Lachute, claimed to be the purest water in Canada. French water quality specialists explained the groundwater had filtered through the Laurentian Mountains for 200 years, collecting beneath an impermeable layer of clay.

Meanwhile, a brewery has introduced a non-alcoholic blend of 70 percent fruit juice and 30 percent carbonated water. Called "Sundance," the beverage will be flavored cranberry, apple, orange and grapefruit.

The company points out that it is the first mass-produced drink of its kind to combine fruit juice and sparkling wa-

ter, two beverages that currently are hot in the marketplace. They say it reflects a trend toward soft drinks instead of beer and a big gain in fruit-based and soda-based drinks.

According to a 1985 industry survey, this translates into bottled water sales of 953 million gallons of non-sparkling water, 88 million gallons of domestic sparkling water and 30 million gallons of imported sparkling water.

However, another entrepreneur is serving up water just as it comes from the sea. Charles Joseph of Miami Beach, Florida, supplies "V.I.P. Seawater" to aquariums and lobster tanks. He points out that the supply is limitless and easy to suction from the sea through a two-inch hose attached to a fiberglass tank on his truck.

Seawater sales have been so good that Joseph paid off his \$25,000 investment in six months and declares he'll never again work at a "real" job.

Cattails Answer to Pollution?

Pennsylvania researchers are experimenting with common marshland cattails in an effort to curb the prolific coal mine pollution problem in the state. Cattails are thought to have the ability to remove iron and other metals present in acidic water—and even thrive in such hostile environments.

The cattail clean-up effort, although still in its experimental phase, is already being implemented by numerous coal companies who are actively seeking inexpensive methods to restore mining areas to their original state as required by federal law. According to estimates, coal companies spend \$1 million a day to treat acid mine drainage, usually with caustic soda, limestone or other elements which neutralize acidic discharge.

About 40 cattail marshes have been started in the last three years in an effort to curb the acid mine drainage problem. Officials estimate that 100 more will be planted this year. Similar experimental wetland strategies are being used at wastewater treatment plants across the United States. Ironically, how and why cattails work is a puzzle to many researchers although

Mainstream, continued from page 3

the wetlands' purifying effects on water have been common knowledge for many years.

Pennsylvania produces about one-third of the nation's coal. As a result, more than one-third of the nation's

streams polluted by acid mine drainage are located in the state. Harmful by-products of coal mining—especially sulfuric acid—often poison streams and kill wildlife.

Ben Pesavento, head of the independent Environment Analytic Ser-

vice Inc. in Pennsylvania, has been experimenting with the remedial properties of wetlands since 1971. He claims that the technology is cheap and has a 90 percent success rate in lowering manganese—one of many problem elements in the discharge.

**ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS
AS OF JULY 23, 1986**

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY	PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
SOUTHEAST			NORTHEAST		
Atoka	198,175	79.1	Eucha	73,500	92.4
Broken Bow	871,327	95.0	Grand	1,351,210	90.5
Pine Creek	77,293	99.5	Oologah	544,240	100.0
Hugo	130,947	95.2	Hulah	30,525	99.8
CENTRAL			Fort Gibson	365,200	100.0
Thunderbird	105,925	100.0	Heyburn	5,783	88.0
Hefner	63,331	83.9	Birch	18,369	96.0
Overholser	10,455	65.7	Hudson	200,300	100.0
Draper	70,742	70.7	Spavinaw	30,000	100.0
SOUTH CENTRAL			Copan	42,742	98.5
Arbuckle	61,017	97.5	Skiatook	—	1
Texoma	2,333,002	88.4	NORTH CENTRAL		
Waurika	191,141	94.0	Kaw	428,600	100.0
SOUTHWEST			Keystone	616,000	100.0
Altus	31,586	24.0	NORTHWEST		
Fort Cobb	75,917	96.8	Canton	94,249	96.7
Foss	133,156	54.6 ²	Optima	3,000	1
Tom Steed	71,383	80.2	Fort Supply	13,900	100.0
EAST CENTRAL			Great Salt Plains	31,400	100.0
Eufaula	2,213,899	95.0			
Tenkiller	627,500	100.0			
Wister	23,950	88.4			
Sardis	294,406	97.0			
			STATE TOTALS	11,431,170	90.5³

- 1. In initial filling stage
- 2. Temporarily lowered for maintenance
- 3. Conservation storage for Lake Optima not included in state total

Data courtesy of U.S. Army Corps of Engineers, Bureau of Reclamation, Oklahoma City Water Resources Department, and City of Tulsa Water Superintendent's Office.

This monthly newsletter, printed by the Central Printing Division of the Office of Public Affairs, Oklahoma City, Oklahoma, is published by the Oklahoma Water Resources Board as authorized by James R. Barnett, executive director. Ten thousand copies are printed and distributed monthly at an approximate cost of 20 cents each.

MARY E. WHITLOW, Editor

BRIAN VANCE, Writer

BARRY FOGERTY, Photographer

MARIE WELTZHEIMER, Design

OKLAHOMA WATER NEWS

Monthly Newsletter of the
Oklahoma Water Resources Board
1000 N.E. Tenth, P.O. Box 53585
Oklahoma City, Okla. 73152

- Gerald E. Borelli, Chairman
- Earl Walker
- Ervin Mitchell
- Bill Secrest
- Ralph G. McPherson
- Gary W. Smith
- Ernest R. Tucker
- Robert S. Kerr, Jr.
- R. G. Johnson

BULK RATE
U.S. POSTAGE
PAID
Oklahoma City, Okla.
Permit No. 310

