



## OKLAHOMA

## water news

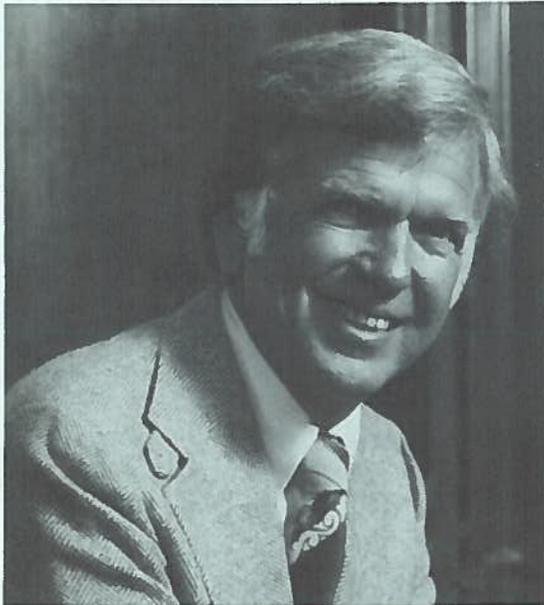
MONTHLY NEWSLETTER OF THE OKLAHOMA  
WATER RESOURCES BOARD

Gerald E. Borelli, Chairman

Earl Walker • L.L. Males • John B. Jarboe • James H. Norick • R.G. Johnson • Ralph G. McPherson • Boyd Steveson • Ernest R. Tucker

## Statewide Meeting Convenes In Oklahoma City December 15

## Board Hosts Governor's Water Conference



An address by Gov. George Nigh, eight workshops on timely water topics and a host of noted panelists are expected to draw more than a thousand water officials to the Governor's Water Conference slated mid-month in the capital city.

Entitled "Water: the Issue of the 80's," the statewide meeting will focus on Oklahoma's water problems and solutions and will be targeted to elected officials of local, state and federal governments. Registration will begin at 8 a.m. at the Sheraton Century Center, with Conference Chairman Robert S. Kerr, Jr. convening the general assembly at 9 a.m. Morning speakers will include Gov. Nigh; Herbert Grubb, Director of Planning and Development, Texas Department of Water Resources; W.M. (Bill) Gamel, Chief of Engineering, Tulsa District Corps of Engineers; Joe Hall, Conservation Officer, Western Area Power Administration, Golden, Colorado; and James R. Barnett, Executive Director, Oklahoma Water Resources Board.

At noon the conference will move to the Skirvin Plaza Hotel for a luncheon and afternoon workshops. Jim Gillie, Assistant to the Vice President, Phillips Petroleum Company, will be the featured luncheon speaker.

Afternoon sessions will give participants an opportunity to choose from eight panel discussions of water issues related to Municipalities, Rural Water Districts, Agriculture, Energy, Environment, Tourism and Recreation/Fish and Wildlife, Conservation/Education and Industry.

OWRB Assistant Director Michael R. Melton, who is overseeing conference arrangements, said a few reservations are still available through OWRB or at the conference registration desk on December 15. Cost of registration, including lunch, is \$10.

For further information on the conference or for advance registration, call the Oklahoma Water Resources Board at (405) 271-2555.

### Second in a Series of Nine OWRB Chairman Gerald Borelli Is Cattleman and Oil Producer

An interest in Oklahoma's water fostered by his uncle, Francis Borelli, the first executive director of the Oklahoma Water Resources Board, set Gerald E. Borelli's feet on the path that would lead him to six consecutive terms as chairman of the 9-member governing board.

Borelli, the youngest member of the Board, was first appointed in 1972 to serve a 7-year term, and every year since, his colleagues have voted to leave the gavel in his able hands. Leadership rests gracefully on the shoulders of the tanned and boyish-faced cattleman and independent oil producer, who serves his hometown of Kingfisher as a director of Peoples National Bank and parish board member of Sts. Peter and Paul Catholic Church. He has also served his state as a member of the

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*Borelli, continued from page 1*

Governor's Advisory Council to the High Plains Study Council and commissioner to the Kansas-Oklahoma Arkansas River Compact Commission.

His concern is progress for all Oklahomans through the development of adequate water supplies of good



Gerald E. Borelli

quality throughout the state. "It is my wish that all of Oklahoma's citizens would recognize our water problems and unite in an effort to solve them," he said. "Eastern Oklahoma's problems are those of inadequate distribution systems and the financial capability to improve them, while citizens of central and western counties face severe water shortages. Each region must realize that a water deficit in one area will adversely affect the other," Borelli emphasized.

He believes that the state must bring its water problems to the bargaining table – the east conceding its surplus water for transfer westward in exchange for the support of the west in securing adequate financing for needed improvements in water treatment and distribution facilities. "Such a weld could be accomplished with a statewide plan of water development such as that proposed in the Oklahoma Comprehensive Water Plan. It would benefit each person, area and interest group," he said.

"These challenging years in the early eighties offer Oklahomans exciting opportunities – chances to choose a bright economic future through progressive water development or sacrifice our potential for growth and prosperity to the dustbowl again."

Borelli believes with the comprehensive survey of water resources and a guide for orderly future development made available in the statewide water plan earlier this year, Oklahoma can cope with the impending water deficits in central and western regions and allow rural areas and municipalities to solve their water dilemmas. He reflects on the summer past as but a taste of the

tragedies that could loom before a state ill prepared to deal with prolonged drought.

With characteristic enthusiasm, Borelli cites completion of the Six-State High Plains-Ogallala Aquifer Area Study in 1982, desalination and chloride control of existing water supplies, implementation of the Board's financial assistance program and the education of Oklahoma's citizens on water issues as other high priority issues.

In the hands of a do-er, a visionary, a whirlwind like Gerald E. Borelli, one must believe the solutions to the state's water problems are at hand.

## Water Board Receives Funding for Weather Mod Planning

A planning project for weather modification – a further effort to insulate Oklahoma from future devastation by drought – was recently announced by Harold Springer, OWRB Stream Water Division chief.

The 18-month joint project funded by the Water and Power Resources Service will measure the potential of cloud seeding and design a "state-of-the-art" weather modification program tailor-made to the state's precipitation and weather patterns. Under the \$250,000 cooperative agreement, OWRB will contract studies to develop a cloud seeding program that can take over when nature short changes the state's farming communities.

Springer said an investigation of cloud seeding opportunities has been contracted to the Oklahoma Climatological Survey. Studies to explore the most efficient cloud seeding techniques for the state will be performed by Aeromet, Inc., a Tulsa-based firm experienced in weather modification research.

OWRB will evaluate Board Rules and Regulations and Oklahoma Statutes to determine procedures for implementing on short notice a comprehensive weather mod program and investigate potential funding mechanisms.

Groundwork was laid in 1972 with passage of the Weather Modification Act. As amended in 1973, it assigned OWRB the responsibility for administering the act, approving contracts between local entities and contractors, licensing operators and issuing permits for weather modification activities. An 11-member advisory committee assists the Board in matters of policy, administration, research and legislation.

"We expect the outcome of the study to be a state weather mod plan which will recommend policy on weather management, determine proper use of the technology and address legal implications," said Springer. "Potential for increasing precipitation through cloud seeding has been estimated at 10 to 30 percent – fair odds if we were faced with another drought like last summer's."

"However," he emphasized, "for success during prolonged drought, we must have clouds to seed. We hope

this project will result in a long-term plan to augment water resources to tide the state over during dry periods when there are very few opportunities to seed clouds."

At a November 19 meeting of project sponsors and contractors, the Water and Power Resources Service approved the OWRB work plan as part of the cooperative agreement.

"It will be up to us to present the Governor and Legislature a program that employs sound standards of practice which are consistent with the requirements of current scientific thinking and the general public good," concluded Springer.

The Water and Power Resources Service drought research project is part of a \$1 million program adopted by Congress in 1978 to develop weather modification as a means of lessening the impact of drought in semi-arid regions. Also sharing in the federal funds were Arizona, Colorado, Kansas, New Mexico, Texas and Utah.



### Liaison Committee to Meet December 12

Members of the Liaison Committee to the Six-State High Plains-Ogallala Aquifer Area Study will assemble at the Ramada Inn West in Oklahoma City on December 12. Representatives of Colorado, Kansas, Nebraska, New Mexico, Oklahoma and Texas will confer with members of the planning consultant firm of Camp, Dresser and McKee, general contractor, to review progress on research elements assigned to the participating states.

### "Oklahoma Today" to Celebrate 25th Year

An anniversary celebration on January 7 hosted by Gov. and Mrs. George Nigh will mark the 25th year of publication of the Oklahoma Tourism and Recreation Department's "Oklahoma Today" magazine. The reception will get under way at 10 a.m. in the capitol's second floor rotunda.

The Discoveryland Singers will entertain with selections from the musical "Oklahoma!" and Gov. Raymond Gary, under whose administration the magazine began in 1956, will head up the guest list. All 103 of the magazine's covers will be displayed in the Governor's Gallery at the capitol during the month of January.

### OWRB Completes High Plains Slide Show

A new slide show prepared by OWRB staff on the Six-State High Plains-Ogallala Aquifer Area Study is ready for public viewing. The 17-minute slide/tape presentation explores the potential impact of the failing ground water aquifer on the state's agricultural economy; outlines the study underway by the Economic Development Administration; and explains Oklahoma's participation.

Gov. Nigh named OWRB lead state agency in accomplishing Oklahoma's portion of the study and designated Executive Director James R. Barnett to represent Oklahoma on the High Plains Study Council.

Groups and organizations interested in scheduling the slide show may do so by calling Rick Smith, OWRB Planning and Development Division chief at (405) 271-2555.

### Corps Area Office Moves to Broken Bow

The Little River Area Engineer Office, formerly located in DeQueen, Arkansas, will be opened at Broken Bow, Oklahoma, before the end of the year. Area Engineer Sam Cupps will head the office which will supervise the operation and maintenance of Broken Bow, Pine Creek, Hugo and Pat Mayse Lakes, as well as the operations phase of Clayton Lake, which is still under construction on Jackfork Creek near Clayton.

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#### ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS AS OF NOVEMBER 14, 1980

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
<b>SOUTHEAST</b>		
Atoka	58,900	47.7
Broken Bow	798,812	87.0
Pine Creek	77,700	100.0
Hugo	157,600	100.0
<b>CENTRAL</b>		
Thunderbird	86,343	81.5
Hefner	55,500	73.7
Overholser	12,900	85.0
Draper	80,000	80.0
<b>SOUTH CENTRAL</b>		
Arbuckle	54,377	86.9
Texoma	2,354,272	89.3
Waurika	106,760	52.6 <sup>1</sup>
<b>SOUTHWEST</b>		
Altus	27,559	20.7
Fort Cobb	64,848	82.6
Foss	143,577	58.9 <sup>2</sup>
Tom Steed	68,039	76.5
<b>EAST CENTRAL</b>		
Eufaula	1,742,206	74.8
Tenkiller	526,380	82.6
Wister	27,100	100.0
<b>NORTHEAST</b>		
Grand	1,090,491	73.1
Oologah	473,421	87.0
Hulah	16,244	53.1
Fort Gibson	365,200	100.0
Heyburn	5,026	76.2
Birch	16,546	86.2
Hudson	195,373	97.5
<b>NORTH CENTRAL</b>		
Kaw	428,600	100.0
Keystone	491,557	79.8
<b>NORTHWEST</b>		
Canton	87,405	75.3
Optima	4,386	— <sup>1</sup>
Fort Supply	11,076	79.7
Great Salt Plains	18,566	59.1
<b>STATE TOTALS</b>	<b>9,642,378</b>	<b>82.1<sup>1</sup></b>

1. In initial filling stage.

2. Temporarily lowered for maintenance.

3. Lake Optima storage excluded from state total.

Data courtesy U.S. Army Corps of Engineers, Water and Power Resources Service, Oklahoma City Water Resources Dept.

Mainstream, continued from page 3

### Turkey Creek Development Weathers Drought

Reuel Little, Marshall County leader and supporter of local water development, reports that three small lakes developed on Turkey Creek provided abundant supplies of good water throughout the past summer's drought. Little believes Turkey Creek's watershed -augmented by Cedar Creek and fed by natural springs -is one of the most productive in the state.

Lake Oteka, Carrie and Prudence provide water of excellent quality to the 2,000 customers of the Marshall County Water Corporation at a cost of seven cents per 1,000 gallons. To supply an additional reserve, local water developers have planned the construction of a fourth, Lake Reuel. The new 200-acre lake on Turkey Creek will be approximately a mile-and-a-quarter north of Lake Oteka.

### Beef Tallow Examined as Antitranspirant

An estimated 3.5 billion pounds of unused tallow, a fat byproduct of the beef production industry, may have found a market in West Texas as a possible antitranspirant to decrease plant water requirements.

A research team at the Texas Agricultural Experiment Station at Lubbock tested tallow-water emulsions containing 1.5, two, three and six percent tallow concentrations on field grown potatoes. Results showed the two percent tallow emulsion as efficient as a commercially marketed product that costs \$40.58 per acre. Cost of the tallow-water emulsion is \$5.20 per acre, suggesting its value as an evaporation suppressant and opening a new market for a currently unused beef byproduct.

### Well Measurement Resumes in January

As part of a continuous annual program to collect and update information on Oklahoma's fresh ground water basins, OWRB field personnel will again measure water levels in approximately 1,400 selected wells statewide. The OWRB-USGS cooperative program will begin in ear-

ly January in the Panhandle and move eastward throughout the state, culminating in March.

Landowners on which these wells are located are again asked to allow access to OWRB field personnel.

### NOVEMBER CROP AND WEATHER SUMMARY

A biting mid-month cold snap brought temperatures back to near normal levels throughout the state. Precipitation from an upper level storm brought snowfalls of two to four inches to southwest and central sections and one inch in the northwest.

Maximum soil temperatures averaged from the upper 60s before the cold front to the upper 40s later. Minimum soil temperatures averaged upper 50s to the mid-40s. All soil temperatures are measured at a 4-inch depth.

Small grains remained in fair condition. Wheat seeding was estimated 95% complete by mid-month. Sorghum harvest was 90% complete. Seeding of oats and barley was 85% complete, soybean and peanut harvests were 65% complete, and cotton harvest was 55% complete.

Pasture and range conditions continue fair to poor, and short forage supplies present a problem in all parts of the state. Cool-season grasses continue to show development, while cattle graze crop stubbles and require supplemental feeding.

*Oklahoma Crop and Livestock Reporting Service*

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## OKLAHOMA WATER NEWS

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