



OKLAHOMA

water news

MONTHLY NEWSLETTER OF THE OKLAHOMA
WATER RESOURCES BOARD

Gerald E. Borelli, Chairman

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Nigh to Host National Experts at Governor's Water Conference

No matter what your question regarding the state's water resources, you're likely to find an answer at the Governor's Third Annual Water Conference in Oklahoma City on December 7.

Gov. George Nigh will introduce the conference theme, "Meeting the Challenge," and set the stage for national speakers in his morning keynote address. The day-long seminar at the Hilton Inn West will assemble some of the nation's brightest water resources luminaries to assess Oklahoma's options in replacing diminishing federal dollars.

If your question concerns federal water programs and funding, your answers may come from Assistant Secretary of the Army for Civil Works, William R. Gianelli, the Reagan Administration's top water policymaker. His illustrious career in water resources is distinguished by his directorship of the California Department of Water Resources during construction of the initial features of the \$2.5 billion California State Water Project. Gianelli will update Oklahomans on federal cost-sharing proposals, and he is expected to bring to the conference innovative strategies states and localities could use in lieu of dollar contributions to cost-shared projects.

If your inquiries concern water quality, there's a good chance answers will come in an address by Frederic A. Eidsness, assistant administrator for the EPA's Office of Water. Eidsness is responsible for administering the Clean Water Act and the Clean Drinking Water Act, a role in which he must manage a multibillion-dollar sewage treatment program, direct the development of national guidelines to control industrial discharges of pollutants into the nation's waters and oversee drinking water programs to protect the public health. Eidsness will brief conferees on recent sweeping changes in EPA regulations that gave states more flexibility in meeting goals of the Clean Water Act by allowing them to set water quality standards on a site-specific basis, according to local needs.

Responses to state issues will likely come in the text of a speech by Glenn H. Sullivan, former OWRB assistant



Gianelli



Gov. Nigh



Eidsness



Robie

director who is presently principal water resources engineer and executive vice-president of the Benham Group, an international engineering consultant firm.

The luncheon speaker, Ronald B. Robie, executive director of the California Department of Water Resources, will brief conferees on the "exportable" portions of California's innovative and highly successful water conservation program. Termed by Gov. Nigh, "the country's number-one water conservation expert," Robie led in the development of a long-range conservation plan which is expected to save California as much as 1.5 million acre-feet of water annually by the year 2000.

Sharing the luncheon program with Robie will be Senate President Pro Tempore Marvin York and House Speaker Dan Draper, who will preview prospective water action in the 1983 Legislature.

Recognizing that more than 60 percent of Oklahoma's total water use is ground water and that many questions

Continued on page 4

Governor's Water Conference

December 6 Early Bird Reception, 6:30-8 p.m.
in the Gazebo, Hilton Inn West

AGENDA - December 7

- 8 a.m.** Registration, Coffee
- 9:00** Opening Remarks - Conference Chairman
- 9:15** Keynote Address
The Honorable George Nigh
- 9:45** The Administration's Perspective of Federal Water Programs
William R. Gianelli, Assistant Secretary of the Army for Civil Works
- 10:30** New Responsibilities for Oklahoma
Glenn H. Sullivan, P.E., Executive Vice-President, The Benham Group
- 11:00** The Changing Roles and Duties of the EPA
Frederic A. Eidsness, Jr., Assistant Administrator, Office of Water, U.S. EPA
- 12:00** Luncheon Program
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** Concurrent Sessions
Water for Agriculture
Water for Commerce and Industry
Public Water Supply
Water Awareness
- 4:15** Cracker Barrel Session
Cheese and Crackers and an opportunity to visit with panelists and speakers and have your questions answered in a relaxed atmosphere "around the cracker barrel."
- 5:30** Adjourn

Roy Smaltz of Cushing Keeps Water-Witching Art Alive

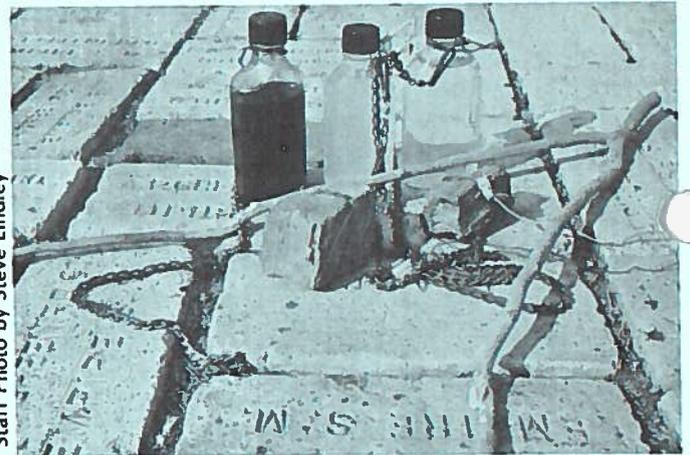
For two weeks last summer, Roy Smaltz and approximately 100 others represented Oklahoma at the Smithsonian Institution's Festival of American Folk Life. His specialty is an art brought to Oklahoma by early settlers from England: water-witching.

As a young boy on the Oklahoma prairie shortly after the turn of the century, Roy Smaltz stood by with no little amount of curiosity watching a man hired by his father walk purposefully back and forth across his family's land, systematically covering the area. In his outstretched hands was a y-shaped tree branch.

The man, of course, was practicing the centuries-old art of "water-witching," a means used by many a pioneer for years to detect water under the flat, sandy land.

"I have to admit it. I was a skeptic," Smaltz says.

His skepticism lasted until the mid-1930's, when Smaltz's brother-in-law suddenly thrust a switch from a



Staff Photo by Steve Lindley

Tools of the trade for Smaltz are a forked elm branch, a couple of mineral-laden rocks and bottles containing oil, saltwater and clear, sweet ground water.

REGISTRATION

Please clip and mail to:

**Governor's Water Conference, Oklahoma Water Resources Board
Post Office Box 53585, Oklahoma City, Okla. 73152**

Name _____ Address _____
 City _____ State _____ Zip _____
 Title/Organization _____

Conference registration costs **\$15** if paid in advance; **\$20** on the day of the Conference. Please make check or money order payable to the Governor's Water Conference. **No refunds after November 29, please.**

I will attend the December 6 Early Bird Reception

CONCURRENT SESSIONS — Check one:

- Water Awareness
- Water for Agriculture
- Public Water Supply
- Water for Commerce and Industry

Staff Photo by Steve Lindley



"My feeling is that it's a gift. Some people can write and some people can paint. Some can preach and some can teach. My talent for finding water is a gift like all those others," says Roy Smaltz.

pinion tree into his hands and told him to "walk over thataway."

"The darn thing just went down, so hard I could hardly hold it. It frightened me," Smaltz recalls.

From that point on, Smaltz was a confirmed believer in and avid practitioner of water-witching. In the half-century that has followed since his first hands-on experience, Smaltz has added geology studies and some downhome reasoning-out of the phenomenon to his power in the successful witching of 150-200 wells in a rough 150-mile radius from his Cushing home.

Now 82-years old, Smaltz says that in all his years of water-witching he has only had wells come up dry four or five times.

"But then, I've been successful where others have failed, too," Smaltz maintains.

There is subtlety in his methods for locating water, somewhat in contrast to the style employed by some earlier dowers who worked their trade in the late 1800's for settlers on the prairie. Usually colorful folk, those blessed with the gift would walk along the land holding a forked branch. At some point, the rod would dip toward the ground, and the diviner would begin to chant, pass into a trance, have muscular spasms or simply say, "Here's the water," depending on his or her personality.

What kind of style does Smaltz have?

"I don't have any. I just go out there and find water and I'm thankful for it. It always thrills me to be able to do it. I get a real joy from it," he says.

He cannot only find water, but he can also tell how deep it is and if it's of good quality. A 4-ounce glass medicine bottle filled with water and suspended from a length of chain begins to slowly swing in circles when held over the source of the water. Each oscillation equals one-foot of depth. Another bottle filled with

**ACTIVE CONSERVATION STORAGE IN SELECTED
OKLAHOMA LAKES AND RESERVOIRS
AS OF OCTOBER 15, 1982**

| PLANNING REGION LAKE/RESERVOIR | CONSERVATION STORAGE (AF) | PERCENT OF CAPACITY |
|-----------------------------------|-------------------------------|-------------------------|
| SOUTHEAST | | |
| Atoka | 100,800 | 81.6 |
| Broken Bow | 777,390 | 84.7 |
| Pine Creek | 75,693 | 97.4 |
| Hugo | 125,817 | 79.8 |
| CENTRAL | | |
| Thunderbird | 97,255 | 91.8 |
| Hefner | 67,800 | 90.0 |
| Overholser | 14,600 | 96.2 |
| Draper | 80,000 | 80.0 |
| SOUTH CENTRAL | | |
| Arbuckle | 59,248 | 94.7 |
| Texoma | 2,431,460 | 92.2 |
| Waurika | 190,413 | 93.7 |
| SOUTHWEST | | |
| Altus | 71,479 | 53.8 |
| Fort Cobb | 68,667 | 87.5 |
| Foss | 144,804 | 59.4 ² |
| Tom Steed | 77,491 | 87.0 |
| EAST CENTRAL | | |
| Eufaula | 1,857,900 | 79.7 |
| Tenkiller | 528,540 | 8.1 ¹ |
| Wister | 27,100 | 100.0 |
| NORTHEAST | | |
| Eucha | 63,000 | 79.2 |
| Grand | 1,069,050 | 71.7 |
| Oologah | 501,973 | 92.2 |
| Hulah | 25,498 | 83.3 |
| Fort Gibson | 343,800 | 94.1 |
| Heyburn | 5,438 | 82.4 |
| Birch | 17,061 | 88.8 |
| Hudson | 198,422 | 99.1 |
| Spavinaw | 29,900 | 99.7 |
| NORTH CENTRAL | | |
| Kaw | 410,420 | 95.7 |
| Keystone | 543,692 | 88.3 |
| NORTHWEST | | |
| Canton | 71,469 | 73.3 |
| Optima | 6,106 | — ¹ |
| Fort Supply | 11,678 | 84.0 |
| Great Salt Plains | 30,261 | 96.4 |
| STATE TOTALS | 10,118,119³ | 84.0³ |

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.

saltwater shows a similar attraction if the water is degraded by salt.

The nature of the talent for water-witching is mysterious. Smaltz has no relatives who share the power and admits that he knows only one or two other people with the aptitude for water-witching.

"You don't learn. You either have it or you don't. I don't know if it's something in your body that does it or just what. Nobody can explain it."

Governor's Water Conference, continued from page 1

result, Dr. Jay Lehr, executive director of the National Water Well Association, will sit on an afternoon panel considering ground water as a source of public water supply.

Topics presented in concurrent afternoon sessions will be Water for Agriculture, Water for Commerce and Industry, and Public Water Supply. A fourth topic, new this year to the agenda, will be Water Awareness, an overview of the state's water resources for the general public.

Also new to the 1982 conference agenda is an informal "cracker barrel" session from 4 p.m. until adjournment at 5:30, during which time speakers and resource people will welcome questions in a relaxed atmosphere "around the cracker barrel."

Registration for the Governor's Third Annual Water Conference costs \$15 in advance or \$20 on the day of the conference. Reservations may be guaranteed by clipping the registration form included in this issue of *Oklahoma Water News* and mailing it to the OWRB with your check or money order.



Ground Water Cleanup Possible

The maxim that ground water once polluted is lost forever may not be true, according to National Water Well Association Executive Director Dr. Jay Lehr. Lehr, writing in the October edition of the *Water Well Journal*, says that many talented people are actively cleaning up or immobilizing ground water pollution with great success but "little fanfare."

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Aquifer restoration and ground water rehabilitation have come further than many are aware, Lehr hints while pointing to cases of successful "in situ" treatments with neutralizing chemical injections and with biologically activating nutrient injections. Lehr will speak in an afternoon session of the Governor's Water Conference Dec. 7.

OCTOBER CROP AND WEATHER SUMMARY

Fair weather has left most crops across the state in fair condition at mid-month, but rain is needed to make up for below average precipitation. Harvest of most field crops was aided by dry, warm weather, but moisture is needed for the development of fall-seeded small grains and late-planted row crops. More rain is also needed in most areas for good growth of wheat that is already up-to-stand.

Winter oats and barley were in fair condition in all areas of the state, with corn and sorghum mostly in good condition. Lack of moisture continued to hurt the maturing of late-planted sorghum, particularly in the west. Cotton, peanuts and soybeans were generally in fair condition as some cotton and soybean growers waited for a killing frost to begin harvesting in volume.

Pastures and ranges were also in fair condition, but in need of more moisture for grasses to last through the winter months. Topsoil moisture supplies were rated short in 70 percent of the reporting counties, while subsoil moisture supplies were rated short in 55 percent.

At mid-month, temperatures ranged from nine degrees below average in the Panhandle to four below in the northeast.

Oklahoma Crop and Livestock Reporting Service

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