



## 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 • Gary W. Smith • Ernest R. Tucker

## Coaching by OWRB Helps State Girl Scouts Earn Merit Badges

One of the first things a devoted Girl Scout must do is learn the code by which every Scout tries to live. This year there is extra emphasis on one part of the Girl Scout Law which calls for Scouts to "do their best" in using resources wisely and protecting and improving the world around them.

Why? It's what Girl Scout literature calls "the big one." This year is the 70th anniversary of the organization, and the Girl Scouts, U.S.A. theme is "the Gift of Water to the Nation."

It's a big one in Oklahoma, too. An unlikely set of circumstances has made water the focus of many local activities, and girls have the opportunity to earn coveted patches for participation.

The program got rolling in March, 1981, when the Oklahoma Department of Energy approached the Girl Scout Councils of Oklahoma with a proposal to develop an energy conservation awareness program. While discussions on that project were proceeding, the Diamond Jubilee Commission called to inquire about in-

stituting a program recognizing the state's history. When the Girl Scout national water theme was announced a short while later, local officials decided to combine the three interests in the design of one Energy Allies patch.

"It's very unusual for people to approach us with specific program ideas or requests, but it just couldn't have worked out better," said Paula Koos, Program Services Director with the Red Lands Council of Girl Scouts.

"We've had over 7,000 girls statewide participate in the program, and the more they learn, the more they appreciate the importance of water in everything they do."

Eight requirements toward earning the Diamond Jubilee patch deal specifically with the state's water resources. Girl Scouts and Brownies seeking the patch need to know Oklahoma's average annual rainfall, whether or not the state has received enough rain this year, the number of lakes, whether the lakes are natural or manmade, the condition of the water table, reasons

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## Prior Rights Determinations Set in Caddo County in April

Members of the Board's Ground Water Division will be in Anadarko April 5-9 and April 19-23 to assist applicants and claimants in filing for prior rights for the beneficial use of ground water in Caddo County.

Work sessions will be held in the Municipal Complex of Anadarko's City Hall Monday, April 5 from 1 p.m. to 4:30 p.m.; Tuesday, Wednesday, Thursday from 8:30 a.m. to 4:30 p.m. and Friday from 8:30 a.m. to 12 noon.

Work sessions are also planned Monday, April 19 from 1 p.m. to 4:30 p.m.; and Friday from 8:30 a.m. to 12 noon. Hearings will begin at 9:30 a.m. on Wednesday, April 21, with work sessions scheduled from the close of hearings until 4:30 p.m.

Any person who used ground water under the requirements of laws prior to July 1, 1973 is given the opportunity to establish a prior right. Exempt from permit requirements are ground water users who use water solely for domestic purposes or for watering livestock up to the normal grazing capacity of the land.



STAFF PHOTO BY GARY CLOVER

"Ninety percent of Oklahoma's lakes are east of I-35," Steve Lindley points out to more than 200 Girl Scouts and Brownies at a meeting on February 16 in Oklahoma City. The program about the state's water resources helped the girls fulfill requirements in earning the Diamond Jubilee patch in scouting.

*Girl Scouts, continued from page 1*

for water rationing, whether or not the state's water resources are evenly distributed and something about current water legislation.

The program has given Board Hydrologist Jim Schuelein and Informational Reps Steve Lindley and Mary Whitlow the opportunity to answer these questions and coach as many as 200 girls at a time on their local water sources, how water gets to their houses, water problems and conservation. A plastic gallon jug full of water helps the girls envision average per capita water use of 150 gallons a day, and a fruit jar of sand, pebbles and water shows them roughly the structure of a ground water aquifer.

Printed handout material shows the many steps between water sources and indoor taps, and a coloring book to take home teaches them easy conservation rules.

"Their range of concerns is very wide and a little bit unpredictable. At one meeting their biggest concern might be over water rationing, and at the next, I'll be asked question after question about snakes in the water," Lindley said.

"On the whole, though, their level of awareness is very impressive, especially where water conservation is concerned. The kids I've talked with were eager, excited and perceptive."

**Last in a Series of Nine**

## **Water Shortages in the West May be Decade's Biggest Issue**

Water plays a prominent part in many aspects of Gary Smith's life. As an avid outdoorsman living only a strong cast away from the clear, tranquil waters of Grand Lake, Smith, his wife Barbara and son Cory are in perfect position to take advantage of the tremendous recreation industry that thrives in the area.

As vice-president of the Grand Lake Bank in Grove, Smith knows all too well how much the area depends on the lake waters for its economic health.

"If we didn't have that lake, there wouldn't be much of a town there," Smith says.

Gary Smith is the newest member of the Oklahoma Water Resources Board, his appointment confirmed unanimously by the Senate on January 11. Yet his proximity to and familiarity with water doesn't fully explain why he accepted the position, or why he derives such satisfaction from it even this early in his 7-year term.

"I'm very involved in this town and this area. It's a beautiful place full of good people, a place that I really like," Smith says of his environs for the last eight years. "I think perhaps the people in this area have confidence in me, so when my name came up I jumped at the chance. I also love challenges, and this is probably the biggest I've ever faced."

Smith was aware of some challenges even before he started serving on the Board in October. The same summer, the Grand Lake area was plagued by water shortages.



STAFF PHOTO BY GARY GLOVER

Gary W. Smith

"Here we were on a magnificent lake with 1300 miles of shoreline and we had a water problem. That got my attention," Smith recalls.

His attention spans to the western part of the state in concern for the depleted, water-short part of Oklahoma, too. A native of Dumas, Texas, Smith is no stranger to dry, flat lands where farming and ranching can be a struggle for survival against little rainfall and declining ground water levels. Smith labels potential water shortages in western Oklahoma as one of the most important issues the state will face in the 1980's.

The water development fund proposals being worked over in the legislature this session are appropriate responses, Smith believes.

"The approach is sound in that all the bills before them help communities help themselves. Given current conditions and political climate, this is the most responsible and rational way to address water problems in western AND eastern Oklahoma," Smith says.

The role of the Board in times ahead, he feels, is to inform the citizenry as to the nature and extent of the state's water problems, and then work with them to achieve solutions.

Of the part he'll play, Smith says, "I've got so much to learn, so much reading to do, so much studying to do . . . but I'm enjoying every minute of it. It's going to be very, very challenging."



### **Bureau to Supplement McGee Creek EIS**

The Bureau of Reclamation plans to prepare a supplement to the 1978 Final Environmental Statement for Atoka County's McGee Creek Reservoir to incorporate changes mandated by PL 97-88 in December 1981. The supplemental environmental statement will address plan

changes necessary to protect the integrity of the project and allow mineral resource development by present mineral owners in the scenic and wildlife areas acquired for the project.

The Bureau expects to have the supplement ready for review by late 1982. More information is available by contacting Al Hill, Regional Environmental Affairs Officer, 714 South Tyler, Suite 201, Amarillo, Texas 79101, (806) 378-5463.

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## Many Oil and Gas Operators Defy Water Permit Regulations

With oil and gas rigs springing up in 71 of the state's 77 counties like sunflowers along the roadside, it is necessary to understand the rules and regulations that govern water use in the oil patch.

Once drilling commences, the average rig uses 10,000 to 15,000 gallons of water a day. Water comprises 96 percent of drilling mud, cools the drill bit, flushes the hole and washes down the drilling platform. While water is indispensable to the production of oil and gas, it is often a commodity of conflict.

Water to supply the operation may be pumped, piped or hauled to the site or purchased from the landowner having a water right permitting such use. Cities often make similar deals, selling the first thousand gallons of water for as little as \$7.50 and refilling the tank truck at city taps for half that amount. Another option open to oil and gas companies is to have their own water well drilled near the well site.

It is at this point that state water laws begin to impact on oil and gas activity by requiring the operator to obtain a permit from the Oklahoma Water Resources Board. Last year, there were 11,699 new oil and gas wells drilled in the state, but fewer than 700 applications for permits from oil and gas companies for the use of stream and ground water. Granted, many are buying water, but the vast disparity between the number of new rigs and the number of new permits indicates a staggering number of operators are acting either in ignorance or defiance of state law.

When seeking to comply with the law, most drillers request a 60-day, nonrenewable "Temporary Provisional" permit from OWRB's Ground Water Division. Last year, 584 such permits were issued to oil and gas companies, along with fewer than 20 permits authorizing use for a longer period. Procedures require that the surface owner be sent a copy of the permit application, the water well be drilled by a licensed driller in compliance with minimum standards, the water well driller file a copy of his log with the OWRB, and that the oil company file a well disposition report within 30 days after final use.

If there is surface water near the site, oil and gas companies may apply for a 90-day "Provisional Temporary" permit for stream water use.

Simply stated, in the absence of a contract to buy water from individuals or municipalities, all oil and gas operators are required to obtain a permit in order to use from either a stream or ground water source.

The procedure for obtaining a Provisional Temporary permit is simple; the application form is brief; and obtaining the permit application can be only a phone call or postcard away. For information on permit procedures or to obtain applications for a 90-day stream water use or 60-day ground water use, call Board offices at (405) 271-2555 or write to P.O. Box 53585, Oklahoma City, Oklahoma 73152.

### ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS AS OF FEBRUARY 12, 1982

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
<b>SOUTHEAST</b>		
Atoka	123,475	100.0
Broken Bow	859,562	93.6
Pine Creek	77,700	100.0
Hugo	157,600	100.0
<b>CENTRAL</b>		
Thunderbird	86,128	81.3
Hefner	75,355	100.0
Overholser	15,169	100.0
Draper	92,400	92.4
<b>SOUTH CENTRAL</b>		
Arbuckle	62,571	100.0
Texoma	2,466,301	93.5
Waurika	146,666	72.2 <sup>1</sup>
<b>SOUTHWEST</b>		
Altus	20,742	15.6
Fort Cobb	66,636	84.9
Foss	129,251	53.0 <sup>2</sup>
Tom Steed	70,830	79.6
<b>EAST CENTRAL</b>		
Eufaula	2,329,700	100.0
Tenkiller	627,500	100.0
Wister	27,100	100.0
<b>NORTHEAST</b>		
Eucha	79,567	100.0
Grand	1,491,800	100.0
Oologah	544,240	100.0
Hulah	30,594	100.0
Fort Gibson	365,200	100.0
Heyburn	4,340	65.7
Birch	19,200	100.0
Hudson	200,300	100.0
Spavinaw	30,000	100.0
<b>NORTH CENTRAL</b>		
Kaw	428,600	100.0
Keystone	616,000	100.0
<b>NORTHWEST</b>		
Canton	37,653	38.6
Optima	5,258	— <sup>1</sup>
Fort Supply	13,864	99.7
Great Salt Plains	31,400	100.0
<b>STATE TOTALS</b>	<b>11,327,454</b>	<b>94.5<sup>3</sup></b>

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

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

Mainstream, continued from page 3

### OWRA Annual Meeting Set March 25-26

The 12th annual meeting of the Oklahoma Rural Water Association will be held in Oklahoma City at the Holiday Inn West on March 25-26. R.K. Johnson, Executive Secretary of the National Rural Water Association, will be the luncheon speaker. Others appearing on the program include OWRB Executive Director James R. Barnett, Speaker of the House Dan Draper and Farmer's Home Administration State Director Larry Stephenson.

### Feds Revising, Relaxing Clean Water Act

Changes to the Clean Water Act prompted by the Administration to be released later this month are expected to scrap many national water quality standards which require some 20,000 industries to treat their wastes prior to discharge in municipal sewer systems; abandon the "zero discharges" goal as impossible; make it easier for companies to receive waivers from clean water standards; and extend the current 5-year life to 10 years for the licenses industries and cities are required to have for the discharge of pollutants into surface waters.

### Water Quality Standards Under Revision

The OWRB staff has begun the task of revising Oklahoma's Water Quality Standards in fulfillment of federal law that requires standards review every three years, OWRB Water Quality Division Chief Ron Jarman announced.

Individual meetings with interested parties and public hearings will be held through July to gather concerns and comments to help identify needed changes. Revised standards will be presented to the Board in January, 1983, for approval before being going to the legislature for endorsement.

### Board Extends Review Period on Rules

Public comment and review on the proposed revision of the Oklahoma Water Resources Board "Rules, Regulations and Modes of Procedure" will be accepted in written form through March 19, 1982. Review was to have been completed at a public hearing in February, but requests for further opportunity have brought an extension. Comments should be addressed to the OWRB, P.O. Box 53585, Oklahoma City, 73152.

### Kansas Scientists Take Aim on Water

Shots from an ordinary rifle are being used as an energy source in seismic reflection studies at the University of Kansas to identify water-bearing sources as shallow as 25-feet below the surface. Kansas Geological Survey scientists say that seismic records produced by rifle shots are much clearer than those produced from other energy sources and give a much clearer picture of shallow aquifers.

#### FEBRUARY CROP AND WEATHER SUMMARY

The Panhandle's 11 degrees over average topped the state at mid-month as temperatures were generally above normal statewide. Light precipitation at mid-month on top of substantial rain and snow the previous week created abundant topsoil and subsoil supplies throughout the state. The favorable temperatures and moisture levels allowed some wheat to break dormancy, and wheat was generally in good condition. Cattle owners reported their stock in good condition with few health problems.

Oklahoma Crop and Livestock Reporting Service

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