

Oklahoma

Water
News

MONTHLY NEWSLETTER OF THE OKLAHOMA WATER RESOURCES BOARD

New Drillers' Rules Simplify Licensing, Ease Bonding Fee

Indemnity Fund Will Ensure Proper Well Construction

The original water well drillers licensing law, approved by the Oklahoma Legislature in 1972 and administered by the OWRB, was a major step in protecting Oklahoma's groundwaters from pollution and ensuring responsible well construction. The legislation mandated that wells tapping the state's groundwater basins be properly sealed for safety purposes and constructed to prevent contamination from human and animal wastes, agricultural chemicals and other surface and subsurface pollutants.

While this law has been expanded and modified somewhat to reflect the increasing importance of groundwater protection, no changes have been as far-reaching as those reflected in the rules passed by the Water Board in June to implement the provisions of HB 2233. This significant legislation directs that commercial water well pump installers are subject to the Board's licensing requirements. It also creates the Well

This neglected well house (right) was home to a potentially dangerous uncovered, abandoned water well (inset). Since this photo was taken, the well has been sealed and the well house removed. Board rules and Oklahoma law require that abandoned wells be either capped or sealed to prevent accidents and groundwater contamination.

Drillers and Pump Installers Remedial Action Indemnity Fund for the prompt remediation of groundwater pollution.

"The Fund helps Oklahoma's water well drillers and it streamlines the Board's enforcement and compliance process," according to Duane Smith, OWRB Groundwater Division chief.

Board regulations require licenses for all persons who drill or recondition water, geothermal or heat sink wells; install monitoring wells; test drill for groundwater; and a new provision of the rules regulates geotechnical borings and individuals who install, remove or repair water well pumps and pumping equipment. Commercial water well drill-

ers are required to pass an examination administered by the OWRB before they are licensed. The Board also requires that abandoned wells be plugged or sealed with cement grout and another inert substance to deter contamination and prevent accidents.

Sources of the Indemnity Fund are the \$50 annual fees required of well drillers and pump installers. The new fee replaces the \$5,000 bond per well previously requested of well drillers to ensure compliance with minimum construction standards which were created to protect groundwaters from pollution via poorly constructed or abandoned water wells. This change is expected to simplify licensing and provide quicker response to pollution through and around the wellhead.

"Under the bonding system, the
Continued on page 2



OWRB Offers Publications for Sale

Many OWRB publications, listed below, may be obtained in person at the Board's Oklahoma City offices (1000 N.E. 10th Street) or through the mail by checking the appropriate box(es); prices include mailing costs (a limit of 30 on "Be a Water Watcher" coloring books). For mail orders, please complete and return the form with check or money order to the Oklahoma Water Resources Board, P.O. Box 53585, Oklahoma City, OK 73152. For more information, call (405) 271-2553.

# OF COPIES	TITLE	PRICE
<input type="checkbox"/>	Oklahoma Water Atlas (1990)	\$8.50/\$10 (mailed)
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New Rules, continued from page 1

Board had to approach the insurance company to obtain bond forfeiture, once efforts at voluntary compliance failed," Smith said. "This process often takes months and may necessitate legal action. Now, the OWRB can tap the Indemnity Fund and begin immediate remediation of a site while initiating legal action against the responsible well driller to recover expenses incurred to correct the violation."

Smith added that the Indemnity Fund will have a \$50,000 cap. Additional fees will be deposited in a separate account, part of the Board's Water Quality Fund, which will be used by the OWRB for inspections, licensing, additional enforcement and education of the state's water well drillers and pump installers. The Water Quality Fund is made up of monies from fees collected by the Board. It was created to enforce and administer the most of the agency's water management and pollution duties.

The new licensing law also includes regulation of wells to be used for heat exchange, such as heat pump and geothermal wells, and geotechnical borings used to determine the physical character of underlying rock and soil. Not under OWRB jurisdiction is installation of oil or gas pumping equipment or the licensing of seismic drillers.



Kathy Peter New USGS Chief

Kathy D. Peter is the new Oklahoma District Chief of the Water Resources Division of the U.S. Geological Survey. She replaces Bob Burchett, now chief of the USGS Texas District in Austin.

Peter, who assumed the post in June, comes to Oklahoma having served for the last three years as Assistant District Chief of the New Mexico District. She began her career with the USGS in 1974 as a groundwater hydrologist in Wyoming.

Peter earned her B.S. in Geological Sciences at Pennsylvania State University and M.S. in Geological Engi-



Kathy D. Peter

neering at South Dakota School of Mines. Her research interests have been groundwater systems, geochemistry and groundwater contamination. Her husband is a major in the Air Force Reserves and is a staff scientist with the New Mexico Engineering Research Institute. They have two sons.

New, Improved Lake Table

Several changes have been made in the *Oklahoma Water News* lake table to enhance its usefulness.

The conservation storage column now includes the designed conservation storage of all 39 lakes and will appear each month. The present storage column includes figures which, in the past, appeared in the conservation storage column. The percent of storage column now supplies data on both conservation and flood storage (if applicable). Also, some of the headings have been changed and we have added data on two lakes, Ellsworth and Lawtonka, in the Southwest region.

5-Month Out-of-State Streamflow Tops 1989 Total

If the first five months are any indication, 1990 will be a banner year for Oklahoma streamflows.

Due to heavy rainfalls through May, the three main rivers flowing out of Oklahoma to Arkansas have registered monumental flows, according to U.S. Geological Survey stream gages on the Little River near Horatio, the Red River at Index, and the Arkansas River near Van Buren. So far this year, 52,593,400 acre-feet of water has left the state directly through the three rivers. The total recorded flow during the 12 months of 1989 was 40,907,000 acre-feet, high compared to Oklahoma's average annual flow of 34,907,000 acre-feet.

Well Sampling Gathers Quality Data

An expanded network of water wells will be the focus of OWRB Groundwater Division staff as they begin the Board's annual groundwater sampling program in July. The program aims to obtain representative water quality data from Oklahoma's 23 groundwater basins.

Three groundwater basins—the Boone, Cedar Hills Sandstone and Oscar Formations—have been added to the network and, as a result, more wells will be sampled than ever before, according to Board hydrologist Gary Glover, who oversees the field work.

"This is the eighth consecutive year we've conducted the sampling program. We've made a concerted effort to expand the network and improve its reliability and, therefore, enhance the value of data gathered for use in development of groundwater quality

standards," he said.

The 1990 sampling network includes more than 250 domestic, stock, irrigation and municipal water wells; approximately 50 more will be resampled to verify elevated analysis levels. Water samples will be analyzed by the State Environmental Laboratory in Oklahoma City.

Creation of groundwater quality standards has been a goal of well sampling efforts since the program's inception in 1983. Information amassed from the network has proven essential to Board staff who are seeking to acquire background quality levels for the state's aquifers. Such data are critical in developing fair and enforceable standards.

Rudimentary standards development began in 1982 when beneficial uses were first assigned to Oklahoma's groundwater basins. Today, nu-

Glover prepares water well sampling equipment before he and other OWRB Groundwater Division staff and branch office employees set out to sample water quality in more than 300 wells throughout the state.



merical standards exist for 36 organic contaminants, such as hydrocarbons, pesticides and other toxic substances which threaten groundwaters.

Comprehensive groundwater standards will help determine best management policies for aquifers and levels of cleanup required to abate pollution. But, apart from standards development, Glover points out, "the sampling program allows us to gain a more complete understanding of the current health of Oklahoma's groundwater resources."

**STORAGE IN SELECTED OKLAHOMA LAKES & RESERVOIRS
AS OF JUNE 25, 1990**

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (acre-feet)	PRESENT STORAGE (acre-feet)	PERCENT OF STORAGE		PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (acre-feet)	PRESENT STORAGE (acre-feet)	PERCENT OF STORAGE	
			conservation	flood				conservation	flood
SOUTHEAST					EAST CENTRAL				
Atoka	124,100	122,312	98.6	N/A	Eufaula	2,314,600	2,446,305	100.0	8.0
Broken Bow	918,070	978,475	100.0	13.0	Tenkiller	654,100	694,614	100.0	7.0
Hugo ¹	187,603	350,726	100.0	21.0	Wister ¹	58,601	83,182	100.0	6.0
McGee Creek	113,930	131,274	100.0	20.0	NORTHEAST				
Pine Creek ¹	73,346	91,077	100.0	4.0	Birch	19,200	20,548	100.0	3.0
Sardis	274,330	305,904	100.0	25.0	Copan	43,400	43,499	100.0	0.1
CENTRAL					Eucha	80,000	80,000	100.0	N/A
Arcadia	27,520	27,910	100.0	0.6	Fort Gibson	365,200	431,663	100.0	7.0
Hefner	75,400	74,843	99.3	N/A	Grand	1,672,000	1,766,039	100.0	17.0
Overholser	15,900	15,169	95.4	N/A	Heyburn	7,105	7,148	100.0	0.1
Stanley Draper	100,000	88,071	88.1	N/A	Hudson	200,300	260,376	100.0	24.0
Thunderbird	119,600	119,080	99.6	0.0	Hulah	31,160	32,079	100.0	0.4
SOUTH CENTRAL					Oologah	553,400	645,942	100.0	9.0
Arbuckle	72,400	72,780	100.0	1.0	Skiatook	322,700	323,111	100.0	0.2
Texoma	2,643,300	3,009,723	100.0	13.0	Spavinaw	30,590	30,590	100.0	N/A
Waurika	203,100	200,813	98.9	0.0	NORTH CENTRAL				
SOUTHWEST					Kaw ¹	428,600	532,671	100.0	11.0
Altus	132,830	132,707	99.9	0.0	Keystone	557,600	691,416	100.0	11.0
Ellsworth	72,490	57,200	78.9	N/A	NORTHWEST				
Fort Cobb	80,010	80,407	100.0	1.0	Canton	111,310	110,120	98.9	0.0
Foss ²	256,220	184,694	72.1	0.0	Fort Supply	13,900	14,074	100.0	0.2
Lawtonka	56,574	55,812	98.7	N/A	Great Salt Plains	31,420	33,368	100.0	0.8
Tom Steed	88,970	86,556	97.3	0.0	STATE TOTALS 13,130,879 14,432,278 98.1 6.6				

¹ Seasonal pool operation

² Conservation pool lowered to enhance project operation

N/A — not applicable; no flood storage allocation.

Data courtesy of the U.S. Army Corps of Engineers, Bureau of Reclamation, Oklahoma City Water Resources Department, Central Oklahoma Master Conservancy District, City of Tulsa Water Superintendent's Office, City of Lawton, City of Altus, Altus Irrigation District, Foss Reservoir Master Conservancy District and Fort Cobb Master Conservancy District.

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.

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OKLAHOMA WATER NEWS

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

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