



OKLAHOMA

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

\$250 Million Water Fund Needed, Governor Tells Meeting of High Plains Task Force

Members of Oklahoma's Advisory Task Force to the High Plains Study Council which met at the State Capitol April 8 heard Gov. Nigh's support of a plan that could eventually make available \$250 million to secure funding for water development projects.

The funds would accumulate through redistribution of growth revenue from the gross production tax. According to the plan sketched by the Governor, one-third of the growth of the gross production tax would be used to build up a \$250 million base for financing loans to local governments and rural water districts for water development. Interest from the fund would generate money for grants to local entities.

Once the fund has reached the \$250 million level, future water development revenue would be used to finance major projects such as large reservoirs and water conveyance facilities, subject to legislative approval.

If the redistribution plan wins legislative backing, county governments and school districts in oil-producing counties would be guaranteed as much money as they formerly received in their best year. A part of the growth beyond that guarantee would be pooled and distributed statewide according to a formula to be devised by the Oklahoma Legislature.

Although S.B. 215 of the First Session of the 36th Oklahoma Legislature and amendments last session created the loan and grant program and assigned its implementation to OWRB, the legislation limited each loan to \$1.5 million and provided no grant funding. Gov. Nigh's recommendation to reapportion gross production tax revenues is similar to that contained in S.B. 220 currently under study by the House Revenue and Taxation Committee. The Governor's proposal won the unanimous approval of Oklahoma's Advisory Task Force.

Continued on page 2

STAFF PHOTO BY GARY GLOVER



Shown with Gov. Nigh following their presentation of a certificate commending the Governor's sponsorship of the first statewide water conference are OWRB members Ralph McPherson, R.G. Johnson, Gerald Borelli, L.L. Males, Ernest R. Tucker and Earl Walker. Borelli presented the award on behalf of the Board at a meeting of the Advisory Task Force to the High Plains Study Council.

Save Water, Cut Water Bill With Free Conservation Kit

Spring showers — most of them spotty, isolated and of short duration — have done little to interrupt a replay of last summer's drought. So far, the state just has not gotten the penetrating, widespread rains typical of the season and necessary for building comfortable reserves in the state's lakes and streams.

In an effort to get the jump on another summer of drought, the Oklahoma Water Resources Board is making available a kit that makes it possible for each participating Oklahoma family to save 22,800 gallons of water and approximately 47 kilowatt hours of energy a year.

The kit targets the bathroom, where the toilet and bathing facilities (tub or shower) consume three-fourths of all water used. The kit contains one shower flow restrictor, one toilet tank displacement device and two dye tablets to detect toilet tank leaks — all of which require less than 10 minutes to install.

Continued on page 2

Water Fund, continued from page 1

The Six-State High Plains Study seeks alternatives in maintaining the economic vitality of the High Plains, threatened by depletion of the Ogallala ground water aquifer, its chief water source.

Joe Harris of Camp, Dresser and McKee, general contractor, presented a status report on the High Plains Study scheduled for completion in 1982. Dr. Harry Mapp, Oklahoma State University; Dr. Neil Dikeman, University of Oklahoma; and Rick Smith, OWRB Planning and Development Division chief, reviewed for Advisory Task Force members baseline impact results. Data collected in research of agricultural and farm-level impacts, energy production impacts, and water resources evaluation and impacts will be used in developing a computer model to measure the direct and indirect economic impacts on the High Plains and outside.

The Advisory Task Force also heard reports from the U.S. Army Corps of Engineers, presently engaged in studies of proposed interbasin water transfer routes, and Julius Cox, who attended the February Congressional briefing on the High Plains Study in Washington, D.C.

Twenty-five Oklahomans serve on the Advisory Task Force to the High Plains Study Council, composed of the governors of the six participating states and their designees. James R. Barnett, OWRB executive director, is Gov. Nigh's designee member, and Sen. Gilmer N. Capps, Julius Cox and Robert E. Kohler serve as the other Oklahoma Council members.

Five new members of the Advisory Task Force were introduced by Sen. Capps. They were Leonard Lauener, Oilton; L.R. Sights, Clinton; Steve Taylor, McAlester; Verne Briggs, Atoka; and David Webb, Pocola.

Sen. Capps also introduced OWRB Chairman Gerald E. Borelli and Board members Earl Walker, L.L. Males, Ernest R. Tucker, John B. Jarboe, R.G. Johnson and Ralph McPherson.

Water supply problems and economic issues before the High Plains Study Council were recapped in OWRB's 20-minute slide show, "The High Plains Study, An Alternative of Hope."

Save Water, continued from page 1

Unfortunately, OWRB has only 1,000 of the conservation kits, so we must limit the quantity to one per household and answer the first 1,000 requests we receive.

Please use the coupon below to order your complimentary conservation kit, and in the meanwhile, follow these tips in saving water in your home and outside:

Use the toilet only for its intended purpose — not for the disposal of tissues, cigarettes and trash.

A slow drip wastes 15 to 20 gallons of water a day. Be alert for leaky taps or toilets and repair immediately. Often, only a washer is needed to stop a drip.

When installing a new toilet, consider a small-capacity model — they're usually less expensive and cut down significantly on the amount of water used.

Take shorter showers. Get wet, turn off the water, lather up, then turn on the water to rinse. Showers require less water than tub baths. Every inch in the tub equals approximately five gallons.

Up to five gallons per minute goes straight down the drain when taps are left running to shave or brush teeth. Turn on the tap only when needed.

When washing dishes by hand, fill a basin for rinsing rather than running the tap.

Automatic dishwashers use 12 to 25 gallons for each cycle, so avoid using the "rinse only" cycle and wash only full loads.

Avoid running the tap for a glass of water. Put a bottle or pitcher in the refrigerator.

Since clothes washing machines require 40 or more gallons of water, save water by running only full loads.

Use buckets of water to wash your car rather than a continuously running hose.

Water lawns and gardens only when needed and only during early morning or evening when evaporation is lower.

A garden hose will dispense up to 600 gallons in two hours. A nozzle will act as a flow restrictor and reduce water use.

Cutting grass at a two to 3-inch height instead of cropping it closely will reduce the amount of water needed.

Sweep sidewalks and driveways instead of washing down with the hose.

Re-use as much water as possible, i.e. use bath water for watering plants indoors and out.

Oklahoma Water Resources Board
P.O. Box 53585
Oklahoma City, Oklahoma 73152

Please send me a **Water Conservation Kit**.

Name _____

Address _____

City _____ State _____ Zip _____

Statewide Well Measurement Shows Decline in Water Levels

Drought which first laid its devastating hand on the state this time last year, accounts for average declines in water well levels ranging from .78 foot in the eastern counties to 1.78 feet in central Oklahoma.

James R. Barnett, OWRB executive director, said that water use was accelerated by many new wells, higher pumpage in all wells during a virtually rainless year and little natural recharge after the spring rains ceased.

During the same one-year period, western areas (excluding the Panhandle) showed an average decline in water levels of .94 foot, while the Panhandle counties registered an average drop of 1.39 feet.

The study, a cooperative program with the U.S. Geological Survey, began on January 5, 1981, and results were announced in mid-April by J.A. Wood, OWRB Ground Water Division chief. The 1,077 total wells surveyed by the OWRB staff in 1981 were measured for depth to water below the land surface and consisted of irrigation, municipal, industrial, domestic and unused water wells.

According to Wood, the annual measurements are taken during the winter and early spring months when irrigation has slowed or ceased, permitting the water table to stabilize. A few wells were exempted from the 1,400 usually measured in the annual program because they were pumping during the survey period, making it impossible to measure the static water level. In a year of normal rainfall, pumping would have ceased for the winter and into the early spring.

Barnett attributed the average declines in almost all of the state's ground water levels to higher irrigation pumpage, higher evaporation rates, increased use of ground water for all purposes throughout the state and insignificant recharge from rainfall. "The state's ground water basins depend on rain for natural replenishment," Barnett pointed out. "We just didn't get those rains after the spring of 1980, and rainfall amounts still continue to range below normal in most areas."

The OWRB well measurement program provides valuable information concerning the ground water levels throughout Oklahoma, aids in calculating amounts of ground water in storage, predicts trends which affect ground water availability and provides published long-term continuous records of data for planning purposes. Wood also stated that the program provides the owner of each well included in the survey information on depth to water below land surface. Upon measurement each year, OWRB personnel attach to each well a waterproof tag bearing such information.

The annual surveys are also useful in the basin studies required by Oklahoma ground water law, provide a framework for related hydrologic research and help in the management of the state's ground water supplies.

More information on the well measurement program is available by calling the Board, (405) 271-2555.

ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS AS OF APRIL 15, 1981

| PLANNING REGION LAKE/RESERVOIR | CONSERVATION STORAGE (AF) | PERCENT OF CAPACITY |
|-----------------------------------|------------------------------|-------------------------|
| SOUTHEAST | | |
| Atoka | 70,200 | 56.9 |
| Broken Bow | 883,030 | 96.2 |
| Pine Creek | 77,700 | 100.0 |
| Hugo | 157,600 | 100.0 |
| CENTRAL | | |
| Thunderbird | 83,392 | 78.7 |
| Hefner | 56,000 | 74.4 |
| Overholser | 14,700 | 96.9 |
| Draper | 73,300 | 73.3 |
| SOUTH CENTRAL | | |
| Arbuckle | 54,987 | 87.9 |
| Texoma | 2,522,599 | 95.6 |
| Waurika | 114,204 | 56.2 ¹ |
| SOUTHWEST | | |
| Altus | 29,108 | 21.9 |
| Fort Cobb | 62,810 | 80.1 |
| Foss | 136,909 | 56.2 ² |
| Tom Steed | 67,382 | 75.7 |
| EAST CENTRAL | | |
| Eufaula | 1,878,093 | 80.6 |
| Tenkiller | 568,827 | 89.2 |
| Wister | 27,100 | 100.0 |
| NORTHEAST | | |
| Eucha | 27,848 | 35.0 |
| Grand | 1,156,090 | 77.5 |
| Oologah | 448,404 | 82.4 |
| Hulah | 12,904 | 42.2 |
| Fort Gibson | 365,200 | 100.0 |
| Heyburn | 4,364 | 66.1 |
| Birch | 15,793 | 82.3 |
| Hudson | 200,300 | 100.0 |
| Spavinaw | 29,060 | 95.0 |
| NORTH CENTRAL | | |
| Kaw | 408,703 | 95.4 |
| Keystone | 574,031 | 93.2 |
| NORTHWEST | | |
| Canton | 68,244 | 58.8 |
| Optima | 3,792 | — ¹ |
| Fort Supply | 13,900 | 100.0 |
| Great Salt Plains | 31,013 | 98.8 |
| STATE TOTALS | 10,233,795 | 86.2³ |

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., City of Tulsa Water Superintendent's Office.



4-County Ground Water Report Published

A new report, "Evaluation of Aquifer Performance and Water Supply Capabilities of Alluvial and Terrace Deposits of the North Fork of the Red River in Beckham, Greer, Kiowa and Jackson Counties, Oklahoma," is now

Continued on page 4

Mainstream, continued from page 3

available from the Board. It was recently completed by Douglas C. Kent of the OSU Department of Geology in cooperation with the OWRB Ground Water Division and the OSU Water Resources Research Institute.

Research and computer simulation estimate the basin's total maximum annual yield at 168,000 acre-feet, or approximately one acre-foot per acre. J.A. Wood, OWRB Ground Water Division chief, said the report will be used by the Board in allocating ground water under regular long-term use permits for that area as required by law.

Wood emphasized that a limited number of copies are available, but the report can be obtained without charge by writing or calling OWRB's Oklahoma City office.

APRIL CROP AND WEATHER SUMMARY

Scattered mid-month rains and general rains April 18-19 brought temporary relief from moisture stress suffered by much of the state's wheat and other small grain crops. Overall, the wheat crop is rated in fair to good condition, with the exception of 50 percent of the Panhandle crop and 20 percent of southwest Oklahoma's crop, which are rated in poor condition.

Oats and barley are in fair to good condition, but development is behind average at mid-month. Five percent of the corn fields are up to stand, and first cuttings of alfalfa hay were reported in south central counties. Pastures and ranges continue to green up, but moisture is needed.

Mid-month rains averaged just over one-half inch in the Panhandle and southeast and over one and one-half inches in the northeast and southwest. Soil temperatures averaged 64° to 77° for highs, 50° to 66° for lows, measured at a 4-inch depth.

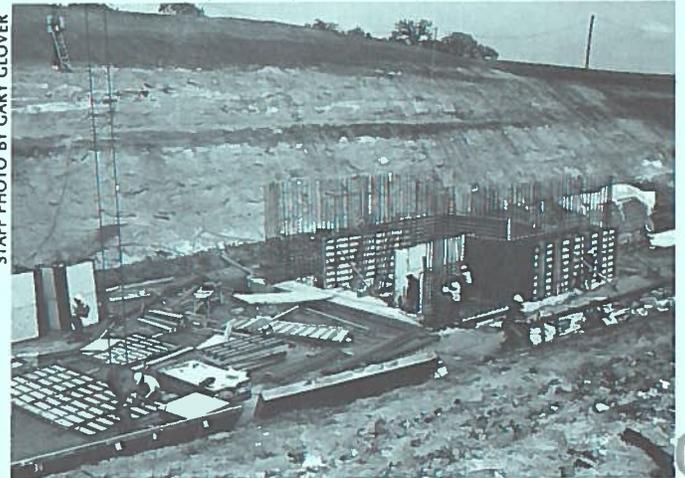
Oklahoma Crop and Livestock Reporting Service

Photo Updates Arcadia Lake Construction

Spring weather working on the side of the contractor at the Corps of Engineers' Arcadia Lake site has moved construction of the outlet works to the stage shown in this mid-April photo. Located on the Deep Fork River one and one-half miles southwest of the town of Arcadia and five miles east of Edmond, the lake will provide flood control, water supply and recreation. Completion of the 1,820-acre lake is tentatively scheduled for 1986.

Groundbreaking at the site occurred on July 19, and the first contract was awarded in October. The dam will be a rolled earth embankment approximately five miles long and rising 104 feet above the streambed. Completed outlet works will consist of a 7 x 10-foot conduit and an 18-inch water supply pipe.

STAFF PHOTO BY GARY GLOVER



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Oklahoma Water Resources Board
1000 N.E. 10th P.O. Box 53585
Oklahoma City, Okla. 73152

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