



OKLAHOMA water news

MONTHLY NEWSLETTER OF THE OKLAHOMA WATER RESOURCES BOARD

Gerald E. Borelli, Chairman

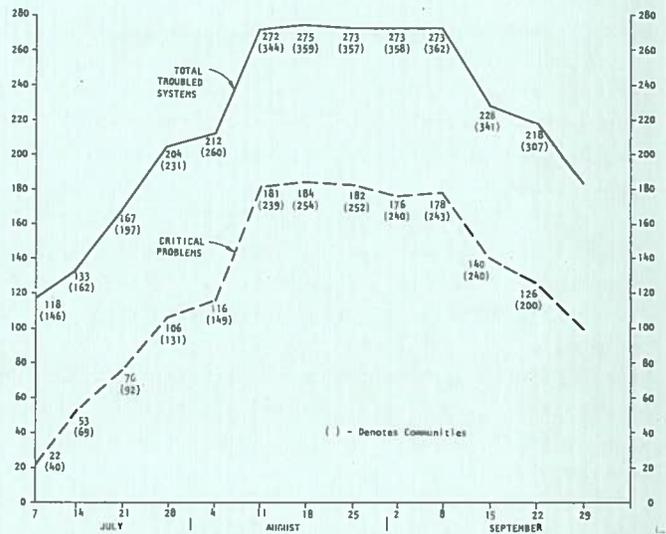
Earl Walker • L.L. Males • John B. Jarboe • James H. Norick • R.C. Johnson • Ralph G. McPherson • Boyd Steveson • Ernest R. Tucker

State Needs Financial Assistance Program to Prevent Recurrence Of Summer's Drought Damage

When the rains finally came, more than 250 Oklahoma communities continued to labor under immediate water supply problems, said the final report to Gov. Nigh on October 2, concluding OWRB's 90-day assignment to keep the Governor apprised of state water supplies. In an ironic twist, water delivery systems, storage, treatment and pumping facilities — not short supplies — generally inflicted the sharpest blows.

James R. Barnett, OWRB executive director, warned that the state still faces a serious water crisis. "We must maintain an awareness of our water problems in upcoming months if we are to avoid the tragedies of the past summer," he said. "The outdated, undersized and inadequate water delivery equipment that squeezed off water supplies will need repair or replacement."

OWRB, a member of the Governor's Water Response Task Force and lead agency for the Water Situation Monitoring Subcommittee, compiled the reports from information gathered by weekly surveys of substate planning districts, municipal water systems and rural water districts throughout the state.



Summer's double-whammy inflicted by heat and drought on water systems and communities is shown in the graph above.

The Board's first report on July 8 set the pattern for the state's prolonged drought drama. It tallied 118 systems experiencing water supply problems, with 22 systems serving 35 communities rated critical — practicing a substantial level of rationing.

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SS Plan Harsher Than Tulsa's
Stricter Water Rationing In...
Water ban effective
Prague hit by water problems
Prague hit by water problems
Water problem still plague ci...
Oklahoma Cities Face Severe Water Crisis
Drought recalls black '30s

Communities In State Struggling For Water
Farm Losses Put At \$275 Million
Drought takes heavy toll
LeFlore County crops in baked soil
Cotton wilting in baked soil
High declares emergency for state water systems
Water ban ordered
Odd-even plan mandatory

Water situation now critical her...
County farms State Still Locked In Bad Drought; Crops Suffering
Drought Damages County
Mandatory water rationing hinted
Drought expected to trigger rise in food prices next year
City Water Supply Still Precarious

First in a Series of Nine Meet L.L. Males, Board Member, Conservationist, Cheyenne Banker

In introducing readers of "Oklahoma Water News" to members of the OWRB executive board, it seems appropriate to feature its senior member, L.L. "Red" Males of Cheyenne, in the first article. Males, a lifelong soil and water conservationist, has represented his interest on the Board continuously since its creation in 1957. His 23-year tenure distinguishes him as the member appointed to more consecutive 7-year terms by the governors of Oklahoma than any other member.

When Males was born in Roger Mills County, it was a land of flood and death, drought and dust. Floods inundated crops, tore out fences and washed cattle to a watery downstream grave. Winds ravaged the land, crops withered under blistering drought and livestock died for want of water. A pageant played out year after year before young Males' eyes. A tragedy that inspired his longstanding love affair with the soil and water of his native plains.

It was a love affair not altogether sentimental, but rather stemming from sound business sense. Males' attention was drawn to the plight of the dryland farmer in the 1930's, when as a young banker he looked out the window of the bank and saw the fertility of the farms floating down the streams or carried away on the wings of the wind. The Depression, the Dust Bowl and flooding threatened to leave western Oklahoma an abandoned, orphaned land.

"It didn't take much imagination to see the schools, the churches, the homes and the bank going the same way," he said. Taking this cue, the young banker set out on one of the most dynamic and timely crusades for watershed control and protection in the nation.

His entry into banking was modest—his first job that of janitor at the First State Bank in Strong City, on the unpredictable Washita River. After graduation from high

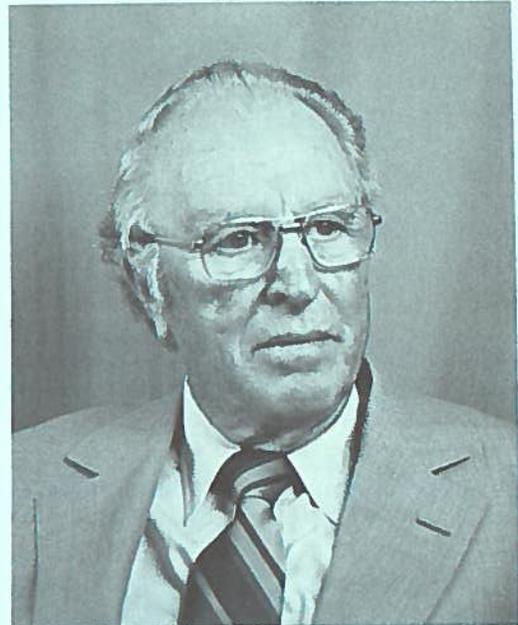
OCTOBER CROP AND WEATHER SUMMARY

Most areas of the state received moisture needed for small grain development and pasture improvement the week preceding October 20. Only the Panhandle was exempt, averaging only one-tenth inch.

Corn, sorghum, soybeans, peanuts and pecans were rated in fair to poor condition and cotton was rated poor. Pastures and ranges continue to be rated fair to poor, although recent rains produced some greening.

Temperatures ranged from one-half to three degrees above normal. Soil temperatures measured at a 4-inch depth averaged highs in the mid-70s and lows in the mid-50s in the north to mid-60s in the south.

Oklahoma Crop and Livestock Reporting Service



L.L. "Red" Males

school, he continued working at the bank, in 1935 moving with it down the road to Cheyenne. He remained with the bank — now Security State Bank — and serves as its president.

"During the 'Dirty Thirties' we were in the Dust Bowl, where every afternoon or so a cloud would roll in until you had to turn on the lights to see. Yet right in the middle of that Dust Bowl we had the worst flood in history, followed almost immediately by more dust storms, because almost all the water that fell ran off."

Convinced that the solution to the water problem begins right out on the land where the raindrop first strikes the soil, he preached getting that raindrop into the soil to grow crops, to restore the water table, to cause the streams to flow, and to prevent flooding.

"We must trap the runoff where it falls, then use that trapped water over and over again as it goes downstream," he said. "A million gallons of water isn't worth a dime to us in the Gulf of Mexico."

His homespun wisdom told him that what affects the farmers would surely affect the bank. He put the resources of the bank behind a conservation program. The bank bought terracing equipment, encouraged farmers to terrace their land and loaned them money for it. "It was just plain good business to me as a banker, a taxpayer and a citizen to protect the farmlands of the nation through good watershed management."

Males barnstormed for a flood control project for Oklahoma, and in 1944 the Federal Government approved projects on 11 Oklahoma watersheds, including the Washita. Sandstone Creek, a tributary to the Washita, was selected and Males' Upper Washita Soil Conservation District was ready to play a dominant role in the nation's first upstream flood control project.

"Our community is so proud of the Sandstone Creek Project we put up a sign. We claim that we are the first in

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L.L. Males, continued from page 2

the world and nobody disputes it, so we go ahead claiming it," he smiled.

And it is the plaque given him by the homefolks paying tribute to his work on the Sandstone Creek Project that's the source of most pride to the man whose counsel on soil and water conservation is sought by presidents, federal agencies, both houses of Congress, foreign leaders, state water boards and watershed associations and soil conservation districts in numbers untold. The simple tribute to a man who's been president of almost every organization he's ever joined and recognized by colleagues in conservation the nation over, reads, "Presented to L.L. (Red) Males in recognition of unselfish devotion to the City of Cheyenne, Roger Mills County, the State of Oklahoma, and to his Nation, in initiating the World's First Upstream Flood Prevention Project — Sandstone Creek — and in building a better tomorrow."

Today, the 65,000-acre watershed blooms with sorghum, alfalfa, cotton, wheat and corn, and cattle graze on the grass-covered plains. All safe from the angry red waters that boiled through the creekbanks in a fury of flood and death a scant 30 years ago. The disciplined creek provides dependable irrigation water that quiets the earth before the hungry, rushing winds.

Drought Damage, continued from page 1

ing voluntary or mandatory rationing, in extreme fire danger, and/or out of water.

By mid-July, 133 systems serving 162 communities were troubled, with 53 systems serving 69 communities in the "critical" column.

In addition to staggering costs to repair physical damages to the state's water supply systems, higher operating costs in the form of more chemicals for treatment, extra electricity for pumping and additional labor charges plagued local officials with a total of \$750,000 above regular monthly operating and maintenance costs during the month of July. Some small towns reported costs \$1,000 to \$5,000 above normal, while cities spent \$10,000 to \$16,000 over budgeted expenses.

At the peak of the drought in mid-August, when mean daily temperatures soared to their highest point, the state's water systems had reported more than \$2 million in physical damages. An assessment included in the August 5 report estimated that \$63 million would be needed to prevent a recurrence of drought tragedies in subsequent years. That cost would include the drilling of new wells, replacement of insufficient pumps, repair and installation of distribution lines and additional storage facilities to meet only the short-to-intermediate-term needs.

By the second week in August, 272 systems serving 344 communities — or one-fourth of all public water supply systems in the state — suffered immediate problems. As August drew to a close, failures leveled off, indicating that among drought-susceptible systems, most or all that would experience problems had already succumbed to summer's double punch.

**ACTIVE CONSERVATION STORAGE IN SELECTED
OKLAHOMA LAKES AND RESERVOIRS
AS OF OCTOBER 10, 1980**

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
SOUTHEAST		
Atoka	62,400	50.5
Broken Bow	783,419	85.3
Pine Creek	77,700	100.0
Hugo	157,600	100.0
CENTRAL		
Thunderbird	89,206	84.2
Hefner	59,600	79.1
Overholser	9,300	61.3
Draper	78,400	78.4
SOUTH CENTRAL		
Arbuckle	56,005	89.5
Texoma	2,365,703	89.7
Waurika	109,250	53.8 ¹
SOUTHWEST		
Altus	28,508	21.2
Fort Cobb	67,619	86.2
Foss	146,977	60.3 ²
Tom Steed	70,557	79.3
EAST CENTRAL		
Eufaula	1,790,660	76.9
Tenkiller	527,380	82.7
Wister	27,100	100.0
NORTHEAST		
Grand	1,042,315	69.9
Oologah	476,405	87.5
Hulah	18,294	59.8
Fort Gibson	364,639	99.8
Heyburn	5,048	76.5
Birch	17,090	89.0
Hudson	200,300	100.0
NORTH CENTRAL		
Kaw	423,560	98.8
Keystone	476,451	77.3
NORTHWEST		
Canton	103,248	89.0
Optima	4,823	— ³
Fort Supply	11,454	82.4
Great Salt Plains	20,553	65.5
STATE TOTALS	9,666,741	82.3¹

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.

In its wrap-up report, OWRB asked the Governor to take the initiative in implementing a comprehensive program of education in water conservation; the preparation of a weather modification program; a continuous water supply inventory aimed at designing local, regional and statewide plans for future water resources development; the enhancement of the Board's financial assistance program to provide loans and grants to cities, towns and rural water districts for water supply improvements; and the creation of a financial mechanism capable of funding large-scale, long-range water development projects in Oklahoma.



Legislators, OWRB to Tour Salt Sources

In a helicopter tour scheduled November 6, members of the Special Committee on the Statewide Water Development Plan and representatives of OWRB and the Corps of Engineers will survey the natural salt sources in Oklahoma and Texas which pollute much of the stream water in the Red River Basin.

The flight will originate in Lawton, tour the Elm Fork Project in Harmon County, land in Vernon, Texas, to pick up U.S. Rep. William Hightower (Texas), then survey an inflatable dam installed by the Corps of Engineers to divert discharges from a salt spring around usable fresh water sources.

Engineering Division Completes Inventory

Paul R. Wilson, OWRB Engineering Division chief, reported that the Board's contract with the Corps of Engineers to update the inventory of nonfederal dams was completed September 30. Identified in the survey were 4,123 dams of jurisdictional size — those 25 feet or more in height or impounding 50 acre-feet of water or more. To date, the division has performed comprehensive inspections on approximately 170 dams and submitted reports to owners.

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First Contract for Arcadia Lake Awarded

Seven K Corporation of Texarkana, Texas, was awarded a \$5,677,466 contract to construct the outlet works for Arcadia Lake on the Deep Fork River about five miles east of Edmond, Oklahoma, last month by the U.S. Army Engineer District, Tulsa.

Federal Payments Scheduled for Oklahoma

Several Oklahoma counties and school districts will share in \$784,538 in payments in lieu of taxes to offset the fiscal impact of certain tax-exempt federal lands in the state. The tax-exempt status is given to lands dedicated to federal use for water resources and development projects, dredge disposal areas under the jurisdiction of the U.S. Army Corps of Engineers, National Wildlife Reserve Areas withdrawn from the public domain and inactive military areas used for nonindustrial purposes. A recent opinion issued by the Attorney General's office reversed a prior interpretation by the state examiner by ruling that Oklahoma school districts are eligible to share in such payments.

AG's Office Rules on Ground Water Use

In an effort to clarify priority of uses of ground water, the Attorney General's Office recently ruled that exempting water for domestic use from the state's permit requirement does not imply priority over any other beneficial uses — that all beneficial uses are equal in priority, none taking precedence over others.

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