



OKLAHOMA

water news

MONTHLY NEWSLETTER OF THE OKLAHOMA
WATER RESOURCES BOARD

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Non-Use Usual Cause to Cancel, Reduce Stream Water Permit

On almost any given day in Oklahoma, scores of new families arrive to seek shelter in the economic stability of the Sunbelt, thousands of farmers go about their tasks of greening plowed lands, dozens of new drilling rigs are hoisted in place, and new businesses and industries spring up like dandelions. Many of them are unaware of the others, yet all are related by a common bond.

All are water users who will compete in the coming years for water to supply their homes, farms and industries. As demands are pressed upon the available supply, the OWRB, as stewards of the state's waters, will scrutinize more closely stream water permits which claim water but fail to put it to beneficial use in the quantities stated on the dotted line.

Unlike ground water, which is considered property of the landowner, water forming a definite stream is "public" water, and is subject to appropriation by the OWRB for the benefit and welfare of the people of the state. To facilitate the tasks of determining the amount of water available and fairly apportioning the surface waters, the OWRB Stream Water Division has identified 49 stream systems.

Statutes require that once a permit is issued, its holder can retain his appropriation only by complying with the specific conditions of the permit and putting the entire amount of water to beneficial use within seven years. Exempt from the 7-year requirement are those permits which contain a long-term schedule of use based on the life of a specific project. In such case the applicant must demonstrate to the Board that there is a future need, that the project would promote the optimal beneficial use of water and that it would be impossible to put the entire amount to beneficial use within seven years.

Holders of valid permits from the OWRB are required to report water use once each year on forms provided by the Board. For permits that are at least seven years old, the next annual water use report is listed with that of the six previous years. In order to judge whether water use complies with the permit, this 7-year record of water use

is compared to the amount appropriated. The permit may be reduced, canceled or revalidated according to the maximum used in any continuous 7-year period.

If the water user fails to return his card to the OWRB, it has the effect of reporting no water use for that year.

In the example below, assume the permitted annual amount is 100 acre-feet.

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Irrigation Nears Pre-OPEC Level, New OSU Report States

Water planners interested in detecting trends in irrigation in one or all of Oklahoma's 77 counties can check the new 1981 Irrigation Survey compiled by Delbert Schwab, OSU Extension Irrigation Specialist. With the assistance of county extension directors and U.S. Department of Agriculture personnel, Schwab has estimated the crop acreage actually irrigated and harvested for the year.

Schwab, who has been publishing the report biennially since 1968, said one of the most significant trends is that irrigated agriculture is making a gradual comeback after a decline in the mid-to-late 1970's.

Recent irrigation history is related directly to the energy situation in the United States. In 1973, OPEC cut production of oil and embargoed shipments to the U.S. When the embargo was lifted, energy prices soared, and by 1976, the dimensions of the crisis were becoming fully visible.

In Oklahoma the 1975 figure of 941,000 acres under irrigation dropped sharply to 891,102 acres in 1977 as farmers refused to pay the high energy costs necessary to pump water to their crops.

"They were not only unable to afford new systems, but often they opted not to run the ones they had. Irrigation systems that were profitable when energy prices were low suddenly became only 'break even' or marginal, at best," Schwab said.

Since the low point in 1977, farmers gradually have been bringing their systems back on-line in seeking to

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Non-use, continued from page 1

YEAR	ACRE-FEET USED
1974	100
1975	No report
1976	No report
1977	0
1978	No report
1979	37
1980	No report
1981	25

Review of the years 1974-1980 would've shown water use in compliance with the permit at 100 acre-feet. The next year's review of the same permit for 1975-1981, at which time the year 1974 would be dropped from consideration and 1981's total added, would result in the permit being reduced to 37 acre-feet, the greatest amount used in that continuous period.

It is this continuous review of information contained in 3,955 permits which constitutes one of the primary functions of the Stream Water Division. Since November 1981, 342 permits have been reviewed, resulting in the reduction or cancellation of 315 permits and revalidation of 27.

J.A. Wood, OWRB Stream Water Division chief, concedes that the task of permit review has grown nearly unmanageable with so many permits on file. The Board has recently contracted with the Department of Civil Engineering at OU to develop a computer model which soon could assume the tasks of review, reduction and cancellation of stream water rights.

"When the new computer system is in place, it will become even more important that permit holders who have beneficially used their allotment complete annual water use reports and return them to the Board promptly," said Wood.

Irrigation, continued from page 1

reclaim profits. It's a carefully calculated risk, since they must grow enough extra crop to cover the fixed costs of the irrigation equipment plus the cost of operating it. Even so, the number of acres under irrigation rose to 908,070 in 1981.

"We're not quite back to where we were before the embargo and escalation of energy prices, but we're getting there," Schwab said.

Schwab pointed out that the periodic surveys of the state's irrigation situation has observed other trends as well. Since 1979, acreage irrigated by self-propelled center pivot sprinkler systems increased by about 31,033 acres. Because labor is scarce in many areas, irrigators increasingly are looking for ways to reduce manual labor by using a system that can run itself.

Most common in Oklahoma is gravity irrigation, systems that flow water into furrowed fields. Gravity irrigation is used to water 470,405 acres of land, an increase of 52,000 acres since 1979. Sprinklers now irrigate

436,735 acres, down 43,000 from the 1979 count. Water-saving trickle irrigation, wherein water is applied near the roots of each plant, is used on 1,191 acres of land.

Ground water is far and away the most-used source, watering 760,240 acres, 14,618 more than in 1979. Use of surface water for irrigation has decreased since 1979 and now irrigates 147,856 acres.

For the first time, estimates were obtained on the application of agricultural chemicals by injection into irrigation water.

Fertilizer elements (nitrogen, phosphorus and potassium) were applied to 75,622 acres. Fungicides were applied to 19,390 acres, insecticides to 5,865 acres and herbicides to 1,920 acres.

Of the estimated 6,069 farms using irrigation in 1979, grain sorghum was the crop with the most acres under irrigation, standing at 222,666. Wheat had 201,995 acres under irrigation and alfalfa 136,232.

The report serves mainly as resource material for city, county, state and federal planners. Other persons interested in the results of the study may check with their county extension director.

June Cleanups Will Mark "Oklahoma Rivers Month"

Cleanups along Oklahoma's three scenic rivers will be the primary activities during "Oklahoma Rivers Month," proclaimed by Gov. Nigh for the month of June.

"Many of the rivers of Oklahoma possess outstanding esthetic, recreational and economic value," Nigh said in announcing the designation.

A number of local organizations and citizens from areas near the state's scenic rivers will join state agencies in efforts to promote public awareness of rivers. John Shannon, Administrator of the Oklahoma Scenic Rivers Commission, said that local groups would be involved in cleanup activities on public access lands leading to the Illinois River and two of its tributaries, Flint Creek and Baron Fork. A "floating cleanup" and tree planting efforts are also possibilities, he said.

"Oklahoma Rivers Month" follows on the heels of "Illinois River Appreciation Week," observed May 23-29. State rangers presented water safety and anti-litter talks in public schools as part of the week's events.

"Litter is a big problem. Our three scenic rivers have 230 miles of bank and more than 200 square miles of public access areas, but we have just one maintenance person," Shannon pointed out.

Forty tons of refuse a month was hauled from the rivers and adjoining lands last summer.

"We found everything from beer cans to kitchen appliances. Volunteer help and cleanup drives are absolute requirements."

Shannon said the two designations recognizing the beauty and value of Oklahoma's rivers are also timely. The City of Fayetteville, Arkansas, has proposed the con-

struction of a sewage treatment plant that would discharge up to nine millions gallons per day into the Illinois River.

"I hope 'appreciation week' and 'rivers month' will draw the attention of Oklahomans to the issue," Shannon said.

Figures show there are plenty of state residents who have reason to be interested. More than 400,000 people canoe down the Illinois, while three million visit the Illinois-fed Lake Tenkiller each year.

The Oklahoma Water Resources Board unanimously adopted a resolution at its May 11 meeting opposing construction of the plant on the Illinois, saying that the river "cannot assimilate any additional sewage without environmental damage."

The resolution is similar to those adopted by the Oklahoma Legislature and several other state agencies which argue that the proposed plant could also significantly diminish the scenic and recreational value of the Illinois River.

Shannon said that activities in Oklahoma correspond with a proposed "American Rivers Month" sponsored by Sen. Paul Tsongas of Massachusetts. Tsongas expects about 30 states to declare June a "rivers month."



Board Mails Water Use Reports

The OWRB has adopted a new format for those people reporting water use for purposes other than irrigation in the annual water use report forms recently mailed to approximately 11,000 water rights holders. The revised forms ask for more specific water use information to assist the OWRB in better estimating water use and demand. Water users are asked to take care in completing all portions of the form applicable to their operations. Signed reports are due back in Board offices 30 days after receipt.

City of Chandler Plans New Reservoir

Land acquisition for a new Chandler lake on Bell Cow Creek is due to begin this summer, with construction slated to begin by October, 1983. The new reservoir is expected to provide more than three million gallons of water a day, allowing the sale of water to the town of Davenport as well as nearby rural water districts.

With funds provided by the Soil Conservation Service and the Farmers Home Administration, the \$8 million lake's construction will also provide flood control and recreation for the area. Plans call for boating and fishing on the 1,070 acres of water, with hiking, bike trails, picnic areas and a nature habitat on the 1,180 acres of land surrounding the lake.

ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS AS OF MAY 18, 1982

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
SOUTHEAST		
Atoka	123,475	100.0
Broken Bow	918,100	100.0
Pine Creek	77,700	100.0
Hugo	157,600	100.0
CENTRAL		
Thunderbird	105,925	100.0
Hefner	75,355	100.0
Overholser	15,169	100.0
Draper	84,900	85.0
SOUTH CENTRAL		
Arbuckle	62,571	100.0
Texoma	2,637,700	100.0
Waurika	203,100	100.0 ¹
SOUTHWEST		
Altus	67,297	50.6
Fort Cobb	78,423	100.0
Foss	156,875	64.3 ²
Tom Steed	69,736	78.3
EAST CENTRAL		
Eufaula	2,329,700	100.0
Tenkiller	613,000	97.6
Wister	27,100	100.0
NORTHEAST		
Eucha	79,567	100.0
Grand	1,357,800	91.0
Oologah	544,240	100.0
Hulah	30,594	100.0
Fort Gibson	365,200	100.0
Heyburn	6,600	100.0
Birch	19,200	100.0
Hudson	200,300	100.0
Spavinaw	30,000	100.0
NORTH CENTRAL		
Kaw	428,600	100.0
Keystone	616,000	100.0
NORTHWEST		
Canton	67,500	69.0
Optima	5,000	— ¹
Fort Supply	13,900	100.0
Great Salt Plains	31,400	100.0
STATE TOTALS	11,594,627	96.7³

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.

Budget Cuts Impacts Expected in 1990's

The most influential factor in water management in the future is likely to be the current direction of Congress and the Administration concerning federal spending, according to a new General Accounting Office report. The report matches the results of a survey of water experts by the Bureau of Reclamation indicating the shift of federal responsibilities to the states will have the greatest impact on water resources matters in the 1990's.

Legislative Allocation of Water Funds to Face Voters in Fall

In 1980, a hot dry summer forced 362 Oklahoma communities to curtail water services. Frequent breakdowns in overtaxed pumps and delivery lines left physical damages at \$2 million by mid-August. In 1981, a much less severe summer found 68 communities imposing some form of water use restrictions.

Oklahoma faces yet another summer with water problems that rationing can lessen but not cure: inadequate treatment and distribution systems with little money available to improve them.

Oklahomans will get their chance to impact the problems directly in the November general election when they will be asked to consider a constitutional amendment authorizing the legislature to allocate state funds for local water projects. The House of Representatives added their approval May 17 to an earlier favorable Senate vote to place the question on the ballot.

Voters will be asked to allow the legislature to enact laws "authorizing the pledging, apportionment, use and expenditure of state funds and revenues for water resources development and sewage treatment purposes." The amendment would also authorize the sale, issuance and backing of bonds by the state to provide financial assistance to cities, towns and rural water districts.

Doubts have surfaced during the current legislative session over the constitutionality of the state assisting local governmental entities with their water problems, but House Speaker Dan Draper has said that allowing the people to vote on a constitutional amendment should alleviate any possible problems.

OWRB Executive Director James R. Barnett hopes the amendment can clear the way for aid to communities needing assistance in order to pay for improvements to their distribution and treatment systems.

"We've felt all along that the state can already constitutionally pledge and use public funds," he said.

MAY CROP AND WEATHER SUMMARY

Intermittent showers produced excellent filling conditions for wheat and other small grains, although some flooding occurred in lowland areas and some lodging was observed. Sunshine is needed to advance the maturity of the crop. With harvest near, the crop is rated in good condition and prospects are improved for an excellent wheat harvest throughout the state.

Wet fields prevented ground preparation and planting of summer crops across the state. Some replantings of cotton will be necessary due to washed-out fields in the southwest. Rains have destroyed much of the first cutting of alfalfa which was mowed but not yet baled.

Forages were responding well to recent rainfall, with grasses and clover growing rapidly. Cattle remained in good condition.

Rainfall for the week ending May 23 ranged from .38 inch in the east central to 3.15 inches in the north central. Temperatures ranged from two degrees above normal in the panhandle and north central to four degrees above normal in east central sections.

Soil temperatures measured at the 4-inch depth ranged from 70.9 degrees at Mutual to 81.7 degrees at Tuskahoma for highs. Lows ranged from 55.9 degrees at Goodwell to 69.4 degrees at Ada.

Oklahoma Crop and Livestock Reporting Service

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