

OKLAHOMA WATER NEWS

Bimonthly Newsletter of the Oklahoma Water Resources Board



*from
the desk
of the
Director...*

For several years, disputed water purchase contracts and arguments over delivery areas have blocked some proposed consolidation of water service, creating duplication of facilities and higher prices to water customers. Some sellers of water wanted to charge high prices to outlying districts and cut off the supply if there was a shortage. Some districts wanted to retain their identities, even if consolidation would save money.

These battles flew in the face of the need to provide good water to all Oklahomans at the lowest possible cost. Enter Sen. Ed Long and the Rural Water Task Force.

Sen. Long and Rep. Sean Voskuhl authored legislation to establish a task force to seek solutions. They, with Sen. Jerry Smith, Rep. Mike Mass, the Oklahoma Rural Water Association, Oklahoma Municipal League and 12 citizen members, studied the problem and prepared recommendations that have resulted in legislation this session.

SB 616 creates the Oklahoma Water Resource Task Force to continue the work through 1997.

SB 617 authorizes the OWRB to review disputes involving municipalities and rural water districts and to recommend mediation as an alternative to lawsuits.

SB 618 requires training for elected board members of rural water districts to further address jurisdictional

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Regional Water Supply Systems Good for Oklahoma Communities

Every year some communities and rural water districts lose access to dependable water sources, outgrow the capacity of their systems and struggle with keeping aged equipment and lines in service. Countless small water systems cannot afford modifications to bring them into compliance with expensive, inflexible mandates imposed by the EPA.

Throughout Oklahoma, water managers seek answers to these dilemmas. Some are beginning to realize that regional water supply systems -- where customers from many towns and water districts are served by a common water source -- are able to provide the most efficient, economical and reliable water supply. Regional systems promote unity and afford members opportunities to share in decisions regarding the system's operation, maintenance and administration. Today, such systems put dependable supplies of good quality water at the tap of thousands.

Tillman County's water system is a southwestern Oklahoma success story and an invention born of necessity. For decades, most of the 10,000 residents of the county relied on the Tillman Terrace aquifer to furnish drinking water to their homes and irrigation water to their cotton, alfalfa and wheat crops. However, the groundwater formation that nourished the strong agricultural economy suffered a critical water quality problem -- nitrate contamination. Several communities in the region reported nitrate levels that exceeded maximum contaminant levels in drinking water established by the

EPA and the state Department of Environmental Quality.

The communities of Grandfield, Manitou, Davidson, Hollister and Tipton and Tillman County RWD #1 and other residents of the county relied on the nitrate-contaminated water supply. Problems with supply, storage and distribution had plagued some of the communities.

The communities lacked the financial resources to make the required improvements, but if they refused, the government could have launched disastrous legal actions against them.

Faced with a Catch-22 situation, the communities opted to share the costs through establishment of a regional water supply system. By blending their poor groundwater with good quality surface water from Tom Steed Reservoir and Lake Frederick (purchased from the town of Frederick), communities in the regional system were able to produce supplies acceptable to state and federal regulators.

The communities formed the Tillman County Water Development Authority to administer the countywide system and chose a phased construction scheme to make the project affordable. FmHA and the OWRB Financial Assistance Program enabled the water project with loan and grant funds, and the Association of South Central Oklahoma Governments provided technical guidance. Water Resources Board member Lonnie Farmer, mayor of the town of Davidson, recommends regionalization as means for blunting the impacts of new fed-

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and financial issues.

SB 804, authored by Sen. Easley and Rep. Leist, would encourage consolidation by deleting language allowing municipalities to abrogate contract water sales.

Does it make sense to build two water treatment plants a half mile apart when one consolidated plant would provide better water at lower cost? Is it fair to the buyer when a water supplier, for no stated reason, announces that the price will increase 200%? Should homeowners be deprived of water because their district cannot provide water and a nearby district can, but is not allowed to?

These are critical issues for Oklahoma and I applaud Sen. Long and the task force for their efforts in finding answers. □

Water Systems, continued from page 1

eral water quality mandates and funding constraints.

"In Tillman County, we were fortunate in having the knowledge, perseverance and leadership to solve our problems," says Farmer.

The trend toward cooperation also caught on in McCurtain County, where the city of Broken Bow spearheads a regional system. In 1986, city officials began planning for a regional water treatment plant north of Broken Bow, encouraged by the McCurtain County RWD #1 request to purchase water and interest from an industry in locating there. City Manager Mark Guthrie said the water district, with 300 customers, was the first to join, followed by Tyson Foods, whose poultry operation now employs 1300, then Hochatown RWD #5.

According to Engineer Cecil Wildman of Spear & McCaleb, the towns of Valiant and Wright City await approval of FmHA loans and grants to finance their hookup to the Broken Bow water system. The state-of-the-art plant is capable of producing four million gallons a day (4 mgd) of treated water at a cost of 83 cents per thousand gallons, one of the lowest rates in the state. Wildman points out that the cost charged the system's customers has not changed since the plant came on line in March 1990.

Guthrie said still another expansion is in the works -- water service to 1000 rural residents in 10 communities north and northwest of the lake. The communities of Honobia, Pickens, Smithville, Bethel, Battiest, Mt. Herman, Watson, Plunketville, Octavia and Clebit comprise the largest area in the state that has never had water service. The rural families have relied on scanty wells of poor quality and have lacked adequate fire protection.

Guthrie said the Broken Bow Public Works Authority proposes a two-phase expansion to the north. The first stage would include construction of a main to pump water from the Broken Bow treatment plant to a storage tank atop Carter Mountain, eight miles distant. From mountaintop storage, water would flow by gravity to RWD #6, then by

gravity and pump stations along 190 miles of line to communities in LeFlore and Pushmataha Counties.

Broken Bow Mayor Chuck Darby and PWA Chairman Jim Mack Hasting said the Valiant and Wright City expansion will be in service by early fall. They said the new system probably will provide water at a cheaper rate than the communities' previous systems.

Service to the other 10 communities is scheduled for completion in 6-7 years. According to Mayor Darby, the residents of the region served by the Broken Bow water system will enjoy water so pure that it will exceed EPA standards.

All agree that a reliable source of good quality water gives Oklahoma communities a big advantage when industries scout new locations. □



OCWP Committee Announced

The OWRB announced 21 citizens have accepted invitations to serve on the Board's Advisory Committee for the Oklahoma Comprehensive Water Plan. Executive Director Patty Eaton said members have background in water issues and ability to provide citizens' perspective to the planning process.

Members include Jana Barker, Lawton;

James R. Barnett, Ronn Cupp, Lou Gatti, Cecil Wildman, Oklahoma City; Gerald Borelli, Kingfisher; Ed Brocksmith, Tahlequah; Frank Condon, Idabel; Mark Derichsweiler, Norman; Jack Hudman, Chattanooga; Lewis Kamas, Freedom; Donna Kirby, Altus; Paul Matthews, Stillwater; Bill Miller, Guymon; Jan Norman, Grove; Fran Pace, Tulsa; Bob Portiss, Catoosa; Bill Southard, Ryan; Rob Stallings, Enid; Stan Stamper, Hugo; and Keith Wright, Wister.

Meetings are scheduled March 28 and April 25. □

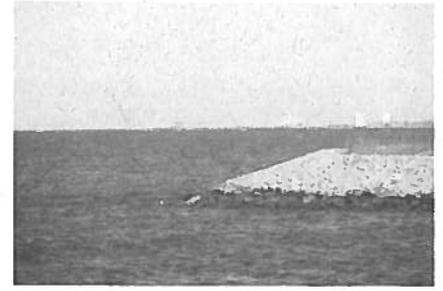


Officials who were instrumental in bringing about the renovation of Holdenville Lake daretoured the site as the project neared completion at the end of February. Holdenville Mayor Jack Barrett is shown with OWRB Chairman Robert S. Kerr, Jr., Speaker Glen Johnson and OWRB Executive Director Patty Eaton. The improvements were enabled by financing from the Board's Financial Assistance Program.

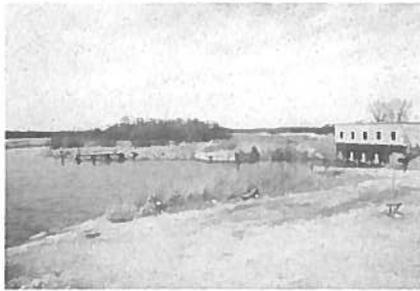
Special Release, Late Rains Replenish OKC Water Supply



Lake Hefner on February 2, before special release of water from Canton Reservoir. Months of dry weather had diminished Oklahoma City's water supply lakes.



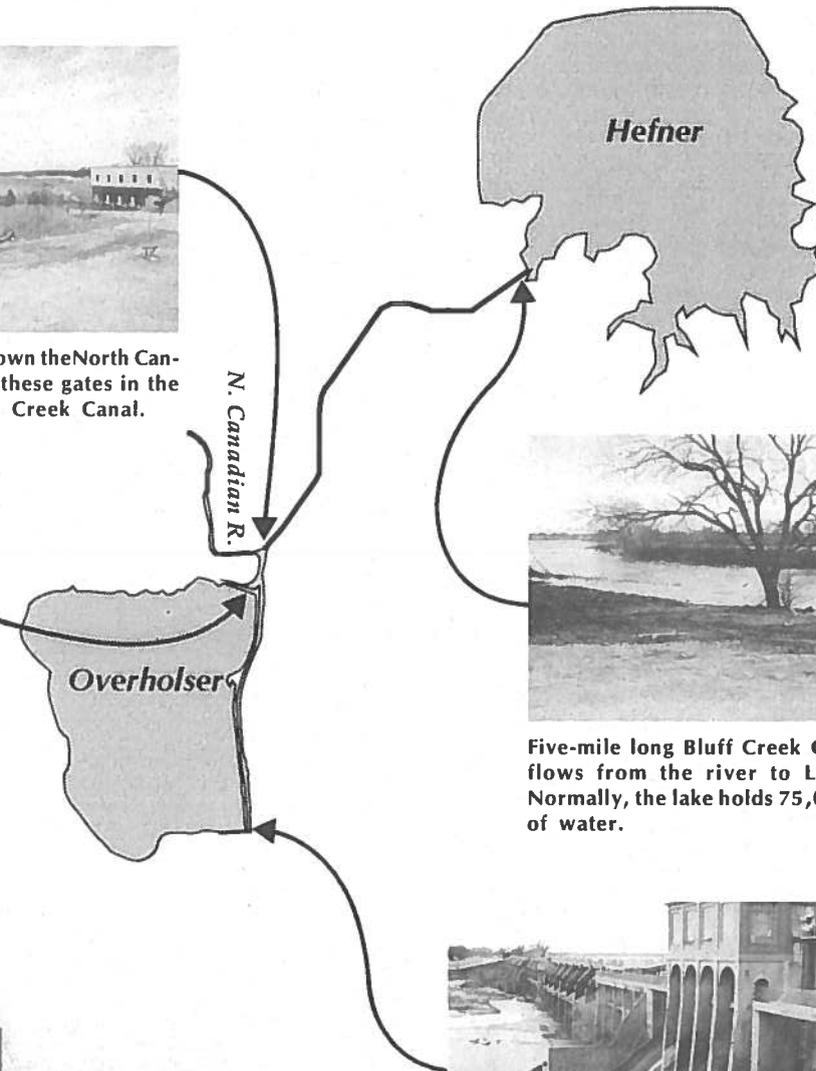
During the first two weeks of February, 30,000 acre-feet of water released from Canton raised the water level seven feet in Lake Hefner.



Water flows by gravity down the North Canadian channel through these gates in the control house to Bluff Creek Canal.



Closing gates at the control house on the bypass channel and at Bluff Creek Canal causes water to flow over this inlet structure to fill Lake Overholser.



Five-mile long Bluff Creek Canal carries flows from the river to Lake Hefner. Normally, the lake holds 75,000 acre-feet of water.



The 1923 flood washed out part of Overholser Dam. Water sprawled 1.4 miles wide at May Avenue, 2 miles wide at Western Ave. This photo shows South Robinson Ave.



When both lakes are full, gates on the bypass channel along the east side of Overholser are opened for normal or high river flow. The control house, completed in 1919, survived the disastrous October 1923 flood.

THE FLOOD CURRENT

MARCH-APRIL 1994

Tulsans Take Aggressive Stance on Flood Damage Mitigation

The City of Tulsa, still smarting from flooding events that prompted nine presidential disaster declarations during the 1970s and 80s, has established a flood prevention and management program that stands today as the standard for municipalities across the country. Recognizing that 10 to 15 percent of the city's area is floodplain, Tulsa officials have expended millions of dollars on flood control projects and enacted strict development regulations that pay much-needed respect to rivers and creeks -- and their floodways.

Still, Tulsa officials admit that, until recently, they underestimated the fiscal drain on the community caused by rebuilding or repairing flood-dam-

aged homes in low-lying neighborhoods year after year. The devastating 1984 flood was the turning point.

"We've learned the hard way. After the 1984 flood, the community pulled together to solve our problems," says Tulsa Mayor Susan Savage, referring to the Memorial Day flood which caused \$180 million in damage and claimed 14 lives.

In addition to establishment of comprehensive drainage plans and a sophisticated flood forecasting and alert

system, the city broke the cycle through a relatively new initiative -- purchase and removal of buildings that receive repeated flood damage.

Utilizing federal/local matching funds, Tulsa acquired and cleared some 300 homes and 228 mobile home sites from local floodplains, including the oft-flooded Mingo Creek area. Yielding to the floodplain's desire to reclaim problem neighborhoods, homes were purchased for the fair market value prior to the 1984 flood, then moved, dismantled or demolished. Resulting open spaces were transformed into

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Feds Boost Funding for Floodplain Clearance, Acquisition

Owners of flood-prone homes and businesses, as well as state and local governments, will benefit from an amended federal law that makes it easier and cheaper to move citizens from flood-prone areas and provide compensation to affected parties.

The Hazard Mitigation and Relocation Assistance Act of 1993, signed into law by President Clinton in December, amends Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act and substantially modifies FEMA's Hazard Mitigation Grant Program (HMGP). The law increases from 50 to 75 percent the federal government's share in buy-outs of "repetitive loss" structures, or those which receive repeated flood damage. The original law was predicated on the fact that money spent to repair or rebuild flood-damaged buildings -- many of which have been flooded before and would likely be flooded again in the near future -- often exceeds the cost of those structures.

Prompted in part by recent flooding in the Midwest, the retroactive amendment is applicable to damages incurred during all presidentially declared disasters after June 10, 1993.

The most obvious benefit to states and communities is the 50 percent reduction in funds required to match federal HMGP dollars while home and business owners will have increased flexibility in deciding whether or not to relocate from flood-prone areas. In turn, because fewer citizens will reside in floodplain areas, the law will eventually reduce federal flood insurance outlays to policy holders.

In general, the Stafford Act amendment seeks to strengthen the National Flood Insurance Program (NFIP) through improved compliance measures and increased incentives for community floodplain management and flood loss mitigation.

For more information on the HMGP, call 817/898-5124.



A house prepared for removal from Tulsa's Mingo Creek area following the 1984 flood. Clearance of the neighborhood allowed the floodplain's use for parks and walking trails.

Get Ready for Floods

March marks the unofficial beginning of the state's flood season. The OWRB offers these tips to protect your family, home and property from flood damage:

Don't walk or drive through floodwaters. Currents can be deceptive; six inches of moving water can knock you off your feet. Don't drive around road barriers; the road or bridge may be washed out. More people drown in their cars than anywhere else.

Stay away from power lines and electrical wires. The number two flood killer (after drowning) is electrocution. Report downed power lines to your utility company or emergency management office.

Be alert for gas leaks. Don't smoke or use candles, lanterns or open flames unless you know the gas has been turned off and the area has been ventilated. Use a flashlight to inspect for damage.

Clean everything that got wet -- When in doubt, throw it out! Floodwaters often pick up sewage and chemicals from roads, farms, factories and storage buildings. Spoiled food and flooded perishables are health hazards.

Be prepared for a rough time. Flood recovery is stressful and exhausting. The impact a disaster has on you and your family may persist for a long time.

Purchase flood insurance. It is estimated that eight to 11 million households in the nation's flood hazard areas are currently uninsured. If you live in a flood-prone area and don't possess flood insurance, contact your local independent agent.

Tulsans, continued from page 4

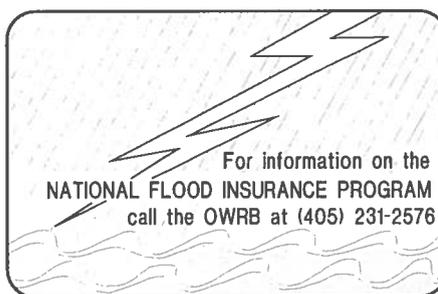
public parks and other recreational areas less susceptible to damage.

In all, the City of Tulsa has cleared 875 floodplain properties since the 1970s. Although federal funds under the Federal Emergency Management Agency's Hazard Mitigation Grant Program (HMGP) have been available to assist in the purchase of these flood-prone structures, the city has recently elected to avoid the hassles and time constraints often associated with federal grant assistance. Instead, local officials have taken the initiative and obtained much of the necessary funding on their own -- an increasingly attractive option for larger municipalities with substantial tax bases. In 1991, Tulsa citizens approved a \$600,000 sales tax package solely dedicated to establishment of a floodplain clearance program. In fact, over the last decade, Tulsans have approved over \$100 million for flood control capital projects. The city also collects \$8 million per year for management of its stormwater control system through a utility fee.

Although future flooding problems cannot be completely avoided, the city's unrivaled devotion to floodplain management will lessen the impact of those disasters, Savage says. "In-

evitably, Tulsa will flood again, but we are certain that flooding will be less frequent and damages will be reduced because of the stormwater programs that Tulsa has developed... by drawing together and making a hard-willed commitment to progress."

In 1992, FEMA recognized Tulsa with its Outstanding Public Service Award for "significant contributions and distinguished leadership" in national floodplain management. □



Flood Month Declared

To make citizens aware of flooding problems and solutions, Governor David Walters has again designated March as "Flood Awareness Month" in Oklahoma.

"The spring flood season is one of the most dangerous times of the year," said Patty Eaton, OWRB executive director.

"The Governor's past proclamations have been of tremendous help to us in educating the public on flood safety and floodplain management and in spreading the word about the availability of affordable flood insurance."

Of the 32 presidentially declared disasters in the state since 1955, 25 have involved flooding.

As part of Flood Awareness Month, the OWRB and FEMA are sponsoring free flood insurance/floodplain management workshops throughout the state. The scheduled dates and locations are March 22, Okmulgee; March 23, Ponca City; March 24, Burns Flat; and March 25, Ardmore. Federal and state officials will be on-hand to review new regulations and update city and county floodplain administrators on program requirements.

For more information or to register, call the OWRB at 405/231-2576. □

National Floodplain Managers to Meet in Tulsa May 13-18

The Adams Mark Hotel in Tulsa will host the 1994 meeting of the Association of State Floodplain Managers (ASFPM) May 8 through May 13. The theme of the eighteenth annual conference is "Nania," a Native American word meaning "all together."

Federal agency representatives will discuss the future of the National Flood Insurance Program and last year's flooding in the midwest. Activities include field trips to Tulsa floodplain acquisition/relocation sites, a golf tournament, barbecue and canoe float on the Illinois River. Special room rates are available for conference guests.

For more information or to register, contact Jack Page, ASFPM Conference Director, at 605 City Hall, Tulsa, OK 74103, 918/596-1846.

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**STORAGE IN SELECTED OKLAHOMA LAKES & RESERVOIRS
AS OF FEBRUARY 25, 1994**

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	124,100	100.0	N/A	Eufaula	2,314,600	2,314,600	100.0	10.4
Broken Bow	918,070	918,070	100.0	4.5	Tenkiller	654,100	654,100	100.0	5.0
Hugo ¹	187,603	187,603	100.0	9.6	Wister ¹	58,601	58,601	100.0	15.8
McGee Creek	113,930	113,930	100.0	16.7	NORTHEAST				
Pine Creek ¹	73,346	73,346	100.0	9.8	Birch	19,200	18,340	95.5	0.0
Sardis	274,330	274,330	100.0	15.5	Copan	43,400	43,400	100.0	7.3
CENTRAL					Eucha	79,600	79,600	100.0	N/A
Arcadia	27,520	27,520	100.0	2.8	Fort Gibson	365,200	365,200	100.0	4.4
Hefner	75,400	73,947	98.1	N/A	Grand	1,672,000	1,641,640	98.2	0.0
Overholser	15,900	15,900	100.0	N/A	Heyburn	7,105	7,105	100.0	1.2
Stanley Draper	100,000	91,290	91.3	N/A	Hudson	200,300	200,300	100.0	4.5
Thunderbird	119,600	119,600	100.0	1.2	Hulah	31,160	31,160	100.0	3.9
SOUTH CENTRAL					Oologah	553,400	553,400	100.0	6.4
Arbuckle	72,400	72,400	100.0	3.2	Skiatook	322,700	301,395	93.4	0.0
Texoma ¹	2,740,000	2,740,000	100.0	3.0	Spavinaw	30,590	30,590	100.0	N/A
Waurika	203,100	198,851	97.9	0.0	NORTH CENTRAL				
SOUTHWEST					Kaw	428,600	428,444	99.9	0.0
Altus	132,830	84,927	63.9	0.0	Keystone	557,600	541,607	97.1	0.0
Ellsworth	72,490	57,484	79.3	N/A	NORTHWEST				
Fort Cobb	80,010	80,010	100.0	1.5	Canton	111,310	72,447	65.1	0.0
Foss	178,410	160,266	89.8	0.0	Fort Supply	13,900	13,900	100.0	0.2
Lawtonka	58,327	46,672	80.0	N/A	Great Salt Plains	31,420	31,420	100.0	1.7
Tom Steed	88,970	70,228	78.9	0.0	STATE TOTALS	13,151,122	12,917,723	98.2	4.1

¹Seasonal pool 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, City of Tulsa Water Superintendent's Office and City of Lawton.

Mary E. Whitlow, Editor

Barry Fogerty, Photographer

Brad Nesom, Typography and Layout

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