from the desk of the Director...

I am very pleased to report that the OWRB has another $50 million available to be loaned at very low interest rates to cities, towns and rural water districts for water and wastewater projects. This $50 million is the result of the fifth revenue bond issue sold by the Board since the Financial Assistance Program was created by the legislature and approved by the people in 1984. The new bonds will allow more communities to receive the help they need to finance improvements to their water and sewer infrastructure.

From the beginning, the FAP has enjoyed tremendous success. The Board has approved 151 loans totaling over $235 million and grants totaling over $18 million to meet the critical infrastructure needs of our state.

At OWRB we work very hard to ensure that this financing program is unique. The staff is actively involved in each project from the time the application is submitted, reviewing engineering plans and specs, working with local officials to review all financing options and securing supplemental financing when necessary. Our engineers track progress during construction with regular inspections, and when projects are completed, our financial analysts continue to work.

The Fourteenth Annual Governor’s Water Conference in Oklahoma City on November 17 heard Governor David Walters blame unfunded mandates for draining critically needed revenues from state and local budgets. As a possible remedy for Oklahoma’s problems in funding education, infrastructure, highways and other necessities, Gov. Walters encouraged adoption of a state lottery, an issue now being examined by the Oklahoma Supreme Court.

“If the lottery issue passes, it is mandated to be up and running in six months,” Gov. Walters said. “It is not too early for you who seek state money to match EPA funds for wastewater treatment facilities to begin talking to your legislators about getting part of those recurring lottery proceeds.” Walters estimated that proceeds set aside for “general government” could amount to about $4.5 million.

Gov. Walters also recommended that local governments ask legislators for access to more taxable programs; that rural water districts and wastewater districts consolidate; that some towns consider privatizing water systems; and local governments consider protection of entire watersheds instead of more costly task of cleaning up pollution after it happens.

“We need to recognize who is going to solve this problem of unfunded federal mandates,” said Gov. Walters. “It is you and us. WE are going to solve the problem. THEY (the federal government) are broke.”

Tulsa Mayor Susan Savage told conferees federal mandates allow the feds to set local priorities. “More than 75 new federal mandates have been imposed on Tulsa between 1988 and 1991,” she said. “Tulsa spends 95 percent of its wastewater capital dollars to implement federal mandates. The EPA required more than $350 million in wastewater improvements; $125 million of that must be funded in the next five years.” Savage pointed out that the city has identified $1.6 billion
Director, continued from page 1

close with each borrower.

By providing careful oversight, communities are assured the finest facilities at the lowest possible cost to the citizens and that the Water Board’s perfect credit history is maintained.

The experience and expertise of the Board and staff have contributed to a program unique in the nation. Ours is the only blind pool bond program to which Standard and Poor’s has given a stand-alone AA bond rating.

If you think your community would benefit from our Financial Assistance Program, or if you are interested in learning more about it, please call (405) 231-2500. We’re here to help.

OWRB Updating Water Plan

Update of the “Oklahoma Comprehensive Water Plan” has shifted into high gear with creation of a Citizen Advisory Committee that will help develop a strategy and scope of work. The committee held its first meeting January 31.

The original Water Plan, which serves as Oklahoma’s long-range strategy for managing and protecting the state’s waters, was published in 1980. HB 2036 passed in 1992 directs the OWRB to update the document every 10 years, with completion of the first update by September 1995.

Approximately 20 Advisory Committee members have been selected to represent all interests of water users.

Conference, continued from page 1

in other capital improvement needs over the next five years – over half of it in streets and expressways; $250 million for an international airport.

“The present system wastes taxpayer dollars on regulations that are unnecessary, obsolete, irrelevant or inconsistent,” Savage said. “However, I see some light at the end of the tunnel. We need legislation to put a limit on federal mandates. Then we need to work smarter by forming partnerships with state and local government. We can do more for less and we can find alternatives that make sense for our communities. We can phase in the financial impact of those requirements with those of our communities in a way that allows us to continue to address other priority needs as well.”

Savage asked for flexibility in defining a mandate and flexibility in applying it to individual communities. “We must have more local control in the process because our cities are not all the same.” Savage emphasized that “cities and towns should not have a ‘one-size-fits-all’ approach to regulating environmental quality and implementing mandates.”

That theme carried over to the luncheon address by Robbie Roberts, South Dakota Secretary of Environment and Natural Resources, who emphasized the plight of America’s small communities. “It is easy to forget that America is a nation of small towns and rural areas,” Roberts said. “Eighty-six percent of the 35,000 total governments in the U.S. contain fewer than 10,000 people. Ninety million live in jurisdictions under 10,000 population; 74 million live in jurisdictions under 2,500,” he pointed out. “Ninety-seven percent of the land mass of the United States is classified as rural.”

Roberts told conferees South Dakota is as rural as it is possible to be in America today. “We have 310 municipalities; 297 have fewer than 5,000 people,” he said. “We have two fulltime mayors in the state and four fulltime city commissioners. Now I want to explain the problems faced by the mayor of Buffalo Gap, South Dakota, population 173; a town larger than 110 other towns in South Dakota.”

What are the main duties of the mayors of all the Buffalo Gaps in America, he asked. “The main duties are probably to run a landfill and to participate in running a rural drinking water system. He might also run a wastewater system and provide some police or volunteer fire services which would include an underground storage tank of gasoline,” said Roberts.

“In environmental bureaucratic terms, that means he is a member of the regulated community under the Clean Water Act, the Safe Drinking Water Act, and at least two parts of the Resource Conservation and Recovery Act. Changes in any of these acts – requirements adding new testing parameters, liner standards, and so on – could not impact the town of Buffalo Gap more if we had drawn a circle around the town and targeted it with a smart bomb,” Roberts emphasized.

As part of a solution, Roberts suggested that state and local governments must have the authority to do a kind of “triage” on environmental requirements. He explained that the triage officer is the combat medical officer who determines which patients can wait, which patients must be treated now, and which patients represent a waste of limited resources. “In a similar manner, state and local governments must have the authority to do first the things that must be done, to do second the things that should be done, and not to do at all the things that waste resources – not because some problems are hopeless, but because some ‘problems’ are not problems,” Roberts said.

Another highlight of the luncheon session was the presentation of Oklahoma Water Pioneers Awards to Larry D. Wornom, Chandler banker and conservationist; J.D. Fleming of Oklahoma City, retired Director of Legislative Services for the Oklahoma Farmers Union; and Paul Miller, longtime Broken Arrow newspaperman and water development activist. The awards were presented by Robert S. Kerr, Jr., chairman of the Oklahoma Water Resources Board and Duane Smith, OWRB assistant director.

The ceremony was initiated in 1985 to honor Oklahomans who have made outstanding contributions to the development, conservation, and protection of the state’s water resources.

Court Settles River Dispute

On December 13, the U.S. Supreme Court approved an agreement to solve the long-standing dispute between Oklahoma, Texas and New Mexico concerning apportionment of the waters of the Canadian River. Oklahoma and Texas had charged that New Mexico’s enlargement of Ute Reservoir violated terms of the Canadian River Compact signed in 1980.

The settlement sets out a schedule of operation for Ute Reservoir and orders payments of $200,000 each to Texas and Oklahoma.
A. Duane Smith, OWRB assistant director, presents Water Pioneer award to J.D. Fleming, retired Director of Legislative Services for the Oklahoma Farmers Union.

B. Tulsa Mayor Susan Savage said Tulsa labors under 75 new federal mandates.

C. Ken Crawford, Director of the Oklahoma Climatological Survey, demonstrates weather forecasting equipment to Gov. David Walters.

D. More than 325 Oklahomans attended the Fourteenth Annual Governor’s Water Conference.

E. Shon Simpsons, Sen. Paul Muegge and Duane Smith visit during the coffee break.

F. The conference also honored soil conservationist Larry Wornom of Chandler, shown here receiving the Oklahoma Water Pioneer award from Duane Smith.

G. Phyllis Robertson and Mike McGaugh of the OWRB assist with registration.

H. Paul Miller, Broken Arrow newspaperman and water development proponent, looks at his name on the plaque that honors Oklahoma Water Pioneers.
Board's SRF Loan Program Helps Small Systems to Comply

A speaker at the Water Conference last month emphasized that the United States is a nation of small towns, with 90 million Americans living in towns with populations under 10,000. These are the communities for whom compliance with the Clean Water Act and other state and federal mandates is most difficult.

In Oklahoma, these are the communities targeted by the Board's SRF Small Community Program.

Scores of communities looked for financing options for the construction of wastewater improvements, but until now, the Board did not have a strategy to help them. First-round federal funds from the SRF involved certain federal cross-cutting laws and authorities which discouraged small communities from participating.

One of the goals of the SRF program is to assist small communities with wastewater treatment and collection systems to come into compliance with state and federal compliance orders by providing lower than market rate loans from second-round SRF funds.

According to Paul Hodge, who oversees the SRF program administered by the Financial Assistance Division, approximately $12.2 million in second-round funds are available. Second-round funds are those funds received by the SRF from principal and interest payments on interim construction loans and principal payments from long-term SRF loans.

Second-round funds are available for the construction in the following wastewater categories:

- Secondary treatment
- Advanced treatment
- Inflow/infiltration correction
- Sewer replacement/rehabilitation
- New collector sewers
- New interceptor sewers
- Elimination of combined sewer

Hodge pointed out that the program defines "small community system" as any publicly owned treatment works or subsurface sewage disposal system that serves 10,000 or fewer people. He said requirements include:

- Projects must be listed on the SRF Priority List and Intended Use Plan;
- Engineering report as required by the Oklahoma Department of Environmental Quality wastewater design standards;
- Sufficient economic and environmental information for the OWRB to issue an environmental decision regarding project impacts and;
- Public participation including a local public hearing.

Hodge said small community projects will be exempt from many Clean Water Act Title II requirements and federal cross-cutting laws and authorities including federal Davis-Bacon requirements.

The following financing terms will apply to loans less than $500,000:

- Direct loan
  - 60% of market rate
  - (fixed or variable)
  - 0.50% administration fee
  - 20-year maximum payback period
  - 6-month minimum payback period
  - 1.25 rate covenant factor
- Calculation for current variable rate is (3.572 x .60) + .50% = 2.64%
- (Average variable rate since 1986 is 5.319%)
- No reserve requirements

Continued on page 5
Board Closes Bond Sale Jan. 20

Joe Freeman, Financial Assistance Division chief, announced the closing of over $124 million in bonds on January 20 to support water and wastewater improvements throughout the state. According to Freeman, the new issue will refinance all of the Board’s outstanding variable rate bonds from its 1986, 1989 and 1992 issues and a portion of the fixed rate bonds from the 1989 issue. It also makes available $50 million in new funds for the OWRB State Financial Assistance Program (FAP). The FAP provides loans and grants to communities to fund water and sewer projects in Oklahoma.

The bond sale followed on the heels of the Board’s selection of the Swiss Bank Corporation of New York as the liquidity provider for existing bonds and the issuance of new bonds. As liquidity provider, the institution promises to buy the bonds that are not sold in case of remarketing of the bonds is not completed and agreed to take all participation risk.

“The greatest feature of the Swiss Bank’s participation is the removal of restrictions on the number of non-investment grade loans. Swiss Bank simply encourages the Board to maintain the exceptional AA rating awarded to the program by Standard and Poor’s,” said Freeman. “It allows the Board to consider the loan applications of small communities that cannot go to the market and issue debt on the strength of their own financial position,” he pointed out. He expects 25 percent to 35 percent of the money to be available to these non-investment grade borrowers.

The OWRB “blind pool” bond issue, where investors purchase the bonds without knowing the identity of communities participating in the loan program, is the first in the nation to receive Standard & Poor’s AA standalone rating. The rating relieves the Board of the need to insure the issue at a cost of $800,000 to $1 million. Instead, the rating agency accepts the Board and borrowing communities to stand behind the bond issue.

Bob Cochran, Stifel Nicolaus executive vice-president who serves as the Board’s senior underwriter, said the Swiss Bank’s own AAA credit rating -- and the subsequent lower interest rate obtained as a result of the high rating -- saved the Board significant money in selling the bonds. It also allowed lower fees during the OWRB’s term of agreement with the Swiss Bank.

“The high credit rating, low cost and flexibility enabled by this bond sale are goals we’ve been striving to achieve for 20 years,” Cochran said.

Board Chairman Robert S. Kerr emphasized that the Board is pleased with the AA rating assigned by Standard & Poor’s. “Their willingness to extend an even higher rating to the program is a tremendous compliment to the Board and the FAP staff,” he said. “The excellent reputation of the loan program is a result of the division’s hard work and perseverance.” Kerr pointed out that the FAP staff conduct extremely thorough reviews of applicants, and the program has never experienced default by a borrower.

### FINANCIAL ASSISTANCE PROGRAM UPDATE

**Approved at November, December, January Board Meetings**

<table>
<thead>
<tr>
<th>Loans</th>
<th>Grants</th>
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<td>(3.572%; 30-year maximum term)</td>
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<tr>
<td>Creek Co. RWD #1</td>
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<td>SRF Loans</td>
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<th>Totals as of 1/13/94</th>
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<td><strong>AMOUNT</strong></td>
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*Calendar Year Totals

SRF, continued from page 4

The following financing terms will apply to loans over $500,000:

**Short-term construction loans**
- 4.25% interest rate (charged as costs are incurred)
- 0.50% administration fee on unpaid balance
- Mature after completion of construction
- 1.25 rate covenant factor

**Long-term loans**
- 60% of market rate (fixed or variable)
- 0.50% administration fee
- 20-year maximum payback period
- 6-month minimum payback period
- 1.25 rate covenant factor

Market variable rate will be determined from market interest on current OWRB loans. The long-term fixed market rate will be determined by using the current rate of interest on like fixed rate loan/bonds or another index determined by the Board.

Grants and Loans Approved*

![Graph showing grants and loans approved from 1983 to 1993.](image-url)
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<tr>
<th>PLANNING REGION</th>
<th>CONSERVATION STORAGE (acre-feet)</th>
<th>PRESENT STORAGE (acre-feet)</th>
<th>PERCENT OF STORAGE conservation</th>
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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 Foserty, Photographer  
Brad Nesom, Typography and Layout

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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 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-

Continued on page 2
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 mountain top 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 Hastings 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.

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 in 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.

**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.
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.
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-damaged 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 off-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

Continued on page 5

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 buyout 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.
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.

Tulans, 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 unrelined devotion to floodplain management will lessen the impact of those disasters, Savage says. “Inevitably, 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.

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.

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

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1 Seasonal 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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April Floods in Ottawa County Bring Disaster Declaration

Eight inches of wind-driven rain lashed Ottawa County on April 10-11, inundating large areas of the city of Miami and thousands of acres of farmlands. In the City of Miami, damage was greatest along the Neosho River and Tar Creek, where floodwaters forced 100 families from their homes and damaged 20 businesses.

In Ottawa County, 275 homes and 42 businesses were damaged or evacuated; 130 miles of roads and 15 bridges were plunged into floodwaters. Damage in the county was greatest along Little Elm Creek east of Miami.

Heavy rains spiked with tornados reeled throughout the northeast region. In nearby Washington County, fast-moving floodwaters swept a rancher herding cattle on horseback to his death.

On April 21, the President declared Ottawa County a major disaster area, making residents eligible for federal disaster relief and opening opportunities for hazard mitigation assistance.

By April 25, an 11-member Interagency Hazard Mitigation Field Survey Team was on-site in Ottawa County. Ken Morris of the OWRB Planning Division and Gavin Brady of the Tulsa Field Office, served on the Hazard

Continued on page 2

Approximately 47 homes were flooded in the Eastgate addition near Miami, in the unincorporated limits of Ottawa County. Most of these homes were previously flooded in September 1993. The county is eligible for a hazard mitigation project.
ORWA Honors Secrest as Man of the Year

Bill Secrest, vice-chairman of the Oklahoma Water Resources Board was named Man of the Year at the Annual Oklahoma Rural Water Association meeting held April 18-20 in Oklahoma City. According to Phil Klutts, outgoing ORWA president, the award recognizes a man or woman who has made substantial contributions of his or her time, energy and expertise in the advancement of rural water in Oklahoma.

ORWA cited Secrest for many years of work as a strong proponent and effective spokesman on water issues at the local, state and national level.

Secrest, a resident of Broken Arrow, is manager of RWD #4, one of the state's largest water districts. Earlier, he had a significant role in the development of RWD #5 in Wagoner County and served the City of Broken Arrow as city manager. He is a member of the ORWA Executive Board and represents Oklahoma on the National Rural Water Association Board of Directors. In May, 1993, Secrest was reappointed by Governor Walters to another seven-year term on the OWRA. Of his previous nine years on the Board, Secrest has been elected vice chairman six years by his fellow Board members.

Executive Director Patty Eaton said as a Water Board member, Secrest has been a tireless advocate for increased rural water funding and more reasonable regulation of water systems.

Flooding, continued from page 1

Mitigation Field Survey Team. The team inspected the damage, identified possible hazard mitigation projects and prepared recommendations to reduce future hazard losses. A report from the team established the eligibility of Ottawa County to participate in the Federal Emergency Management Agency’s Hazard Mitigation Grant Program. Assistance will be provided through FEMA’s Individual Assistance Loss Prevention Program.

The grant program, directed by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, emphasizes a non-structural approach in restoring flooded areas. It encourages projects for elevation, relocation and acquisition.

Recommendations by the Hazard Mitigation Team to the City of Miami included acquisition and/or relocation of flood damaged properties; preparation of a regional master drainage plan; upgrades of certain highways, bridges and railroad trestles; debris removal and channelization of Tar Creek; channel improvements along Quail Creek; installation of flap gates at specific locations; development of small flood water detention areas; and a re-examination of Grand Lake flood control easements.

The City of Miami and Ottawa County, are among 354 communities and 42 counties in Oklahoma enrolled in the National Flood Insurance Program administered by the OWRB.

In Oklahoma, flooding accounts for 25 of the 32 disasters declared since 1955. Since 1972, flood damage claims have cost the nation over $5 billion and have cost Oklahoma $70.1 million.
OCWP Meeting Considers Regional Issues

At its April 25 meeting, the Oklahoma Comprehensive Water Plan Advisory Committee identified water issues facing the state and outlined potential options in dealing with them.

The Advisory Committee separated into east, central and west regional groups to develop a list of issues deserving primary focus. The committee, made up of private-sector water use representatives, was formed to assist the Water Resources Board in the legislative mandate to update the OCWP. As part of this charge, the committee also reviewed recommendations from the 1980 plan.

General issues under scrutiny include water rights, water supply, groundwater protection, nonpoint source pollution, water/wastewater systems, reservoir operations, competition between water uses, water marketing, watershed planning, flood control, floodplain management, water conservation, flood planning and problem mediation/arbitration. The committee has set as goals of the OCWP to encourage economic development, to shift state/federal regulation to the local/regional level, and to find methods to deal with unfunded state and federal mandates.

Planning Division Chief Mike Mathis, said next in the update process is the formation of the Technical Advisory Sub-Committee to assist in researching preliminary water issues. Members of the sub-committee will be drawn from state and federal agencies, including Tourism & Recreation, Department of Agriculture, Department of Wildlife Conservation, Department of Commerce, Conservation Commission, Corporation Commission, Department of Environmental Quality, Grand River Dam Authority, Oklahoma Climatological Survey, National Weather Service, Department of Transportation, Department of Health, U.S. Geological Survey, U.S. Army Corps of Engineers, Bureau of Reclamation, Soil Conservation Service and the U.S. Fish and Wildlife Service. The sub-committee will hold its first meeting in May. With assistance from the Corps of Engineers and Bureau of Reclamation, OWRB staff continue to refine and improve municipal, industrial and agricultural water use projections, an important component of the Water Plan.

Committee members Ronn Cupp, State Chamber of Commerce, Oklahoma City; Jan Norman Grand Lake Association, Grove

Board Studies Salt Fork Alluvium, Terrace

Geologist Ed Eckenstein of the Water Management division completed the first phase of a study of the Alluvium and Terrace of the Salt Fork of the Arkansas River in March. “The study began in 1992 with the establishment of a network of water wells to measure the static water levels and other aquifer parameters each month,” said Eckenstein.

The second phase will include design of a groundwater flow model for determining the maximum annual yield and the equal proportionate share of the Alluvium and Terrace of the Salt Fork of the Arkansas River. Due to the basin’s length, the study considers it in two parts: Reach I in Alfalfa County; Reach II in Grant and Kay Counties. Eckenstein expects to complete the flow model for Reach I by December and the maximum annual yield on that portion of the basin by March 1995.

The aquifer -- composed of inter-fingerling silt, sand, gravel and unconsolidated clay laid by the river in irregular patterns -- yields fresh water for agricultural, municipal and domestic purposes. Wells in the alluvium yield up to 500 gallons per minute; wells in the terrace, 100 to 200 gpm. The alluvium underlies the bottomlands along the Salt Fork, while the terrace lies higher and adjacent to the alluvium.

The Water Management Division, with support from the U.S. Environmental Protection Agency, recently completed another study of the aquifer. The OW RB and EPA wanted to know if water wells located close to the Salt Fork or other saline surface water would be degraded by infiltration of salt water. The purpose of the study was to determine the effects of well pumping on the water quality of the alluvial and terrace aquifer and to gain insight into the interactions of groundwater and surface water. It studied the vulnerability of the aquifer to infiltration by chloride-laden river water and groundwater from the bedrock formations underlying the alluvium around the Great Salt Plains Reservoir.

The study concluded that chloride would impact the alluvium and terrace in an area from the Great Salt Plains Dam to eight miles downstream.

Two water table maps were prepared; one a top-of-bedrock map, the other showing areas sensitive to induced infiltration caused by pumping wells. Hydraulic gradient, transmissivity and pumping rate were used to determine the sensitivity distance.

Of the 478 square mile area ana-
Board Approves Controversial Permits

Few meetings of the Oklahoma Water Resources Board have been as colorful as the meeting held on May 10. When Board members arrived for the 9:30 a.m. meeting, they were met at the curb by two pigs and 55 citizens opposed to the issue of permits for water use in pig farming.

Requests for approval of water rights for confined animal feeding operations are making their way to the Board agenda with increasing frequency. Until 1993, the Board had received only three applications for water rights for swine operations. In 1993, the Board received 35 such requests; during the first five months of this year, 36 applications.

At the May 10 meeting, Pig Improvement Corporation had applied for three permits to use groundwater at their farm sites in Kingfisher County. The sites (Lacy #4, #5 and #6) are "finishing" (fattening) farms for an operation that breeds and sells pigs to pork producers.

In providing Board members with background, Assistant Director Duane Smith emphasized that troublesome complaints concerning odor, flies and disposal of animal wastes were not within the purview of the Water Resources Board.

"The Oklahoma Department of Agriculture (OSDA) has all jurisdiction in licensing and regulating confined animal feeding operations," Smith pointed out. "Recently, OSDA has promulgated rules which regulate such operations, and these regs have been approved and signed by Governor David Walters. Since clear jurisdictional lines are set, all siting, construction, operation and waste disposal issues should be brought before the Department of Agriculture. That is the proper forum," Smith said.

He reminded the protestors that groundwater in Oklahoma is private property. The Water Resources Board is required by law to approve a permit for water use if the applicant owns or leases the land; the land overlies a fresh groundwater basin; the applicant plans to put the water to beneficial use and no waste will occur by pollution or depletion. Under the Board's temporary permit, applicants are allowed two acre-feet of water per acre of land owned or leased. Water right holders are required to use licensed well drillers to construct wells that meet standards aimed at preventing pollution and to maintain the fresh water systems in a manner that prevents excessive loss or waste.

The Pig Improvement Corporation applications meet those requirements of the law, he said.

"Corporate farming is something new to us here in Oklahoma," said Charles Sturgeon, a protestant from Ames. "Most of our farms have been in the ownership of the same families for a hundred years. So many pigs in confined areas will make the same pollution problems that the oil and gas industry made several years ago," said Sturgeon in asking for more time and more study of potential problems. I want to raise my family there. I want to see my grandkids grow up there," he said.

Other protestors who stepped up to the podium echoed the same concerns for the protection of the Cimarron Terrace groundwater aquifer in Kingfisher County. They voiced apprehension about the potential for damage and leakage in waste lagoon liners and high nutrient levels in wastewaters applied to crops. Some mentioned the removal of trees and the changes to the land.

Protestant Bill Bullard's challenge that the Water Board had abrogated its responsibility brought an incisive response from Board Chairman Robert S. Kerr who observed that, "Somebody sold these properties to the corporation. Whatever my feelings are about the use of a property, I am not aware of any restrictions on the free transfer of titled properties," Kerr said. "This Board has not abrogated its responsibility," he emphasized. "The legislature has mandated the Department of Agriculture to issue these permits. They are the principal arbiters of the measures taken to prevent pollution."
It’s Time to Renew Licenses

Gary Glover, who directs the OWRB’s Water Well Drillers/Pump Contractors Program, announced that staff have mailed renewal applications to the 300 firms and 600 operators currently licensed by the Board. “We got an early start in order to give the firms and operators ample time to return the renewal applications, required fees and all multi-purpose completion forms to the OWRB by the May 30 deadline,” Glover explained.

Staff will process the applications and issue renewal stickers by June 30, the expiration date of current licenses. New stickers will license firms and operators for the period July 1, 1994 through June 30, 1995.

Firms and operators who let licenses lapse could be subject to fines or revocation or suspension of their licenses.

Staff also mailed violation letters to 150 drilling firms and pump contractors believed to be unlicensed, reminding them of the licensing law and urging their compliance.

Why Do Lakes “Turn Over”?

Warm temperatures, showers and the greening of plants signal spring. However, there is another phenomenon of the season that only residents of rural and lakeside areas witness—the “turning over” of lakes and ponds, bringing to the waters a distinct murkiness, flavor and odor.

When the sun warms the surface waters to about 39.2°F, the lake takes a deep breath, mixing the waters that have been stratified by temperature all winter. The oxygen-rich top water, made heavier by warming to 39.2°F, sinks to the bottom. Winds on the surface, convection currents set up by night cooling, and evaporation also contribute some energy to circulating the entire column of water.

After this spring circulation, the waters reorient, the upper stratum (epilimnion) composed of warm, fairly turbulent water; the bottommost layer of cold, undisturbed water; and the two separated by a zone of steep temperature gradient called the thermocline.

In the fall, with the onset of cooler weather, the temperature of the surface waters drops until it is the same as that of the bottommost waters (hypolimnion.) Then the water of the entire lake begins circulating and oxygen is returned to the depths.

1993 Flows 238% of Normal

The three rivers leaving Oklahoma registered a combined flow last year nearly 50 million acre-feet above the recorded average. According to U.S. Geological Survey stream gages on the Arkansas, Red and Little Rivers, 85.3 million a/f of water flowed out of the state, compared to an average combined flow of 35.8 million a/f.

The gage on the Little River near Horatio (Arkansas) recorded a discharge of 4,122,300 a/f, compared to a norm of 2,825,772 a/f.

The Arkansas River near Van Buren (Arkansas) discharged 63,471,302 a/f. The river’s average discharge is 23,711,000 a/f.

The recorded total for Water Year 1993 was 85,310,779 a/f, compared to an average total discharge of 35,796,732 a/f. The total flow out of the state exceeded the average outflow by 49,514,047 a/f. Data are for the USGS Water Year 1993, October 1, 1992 through September 30, 1993.

First D/PC Penalty Collected

In May, the Board collected its first administrative penalty for violations of the rules governing well drillers and pump installers. The licensed well driller used an uncertified and unsupervised operator to drill the problem well.

The Board inspector found that no surface seal was installed, leaving an annular space open 12 feet below the surface. Also the driller failed to file a multipurpose completion report in 30 days as required by Board rules. The well driller had to repair the well and the firm submitted a $550 administrative penalty for violations that occurred.

Penalties such as this, along with the annual indemnity fees paid by all licensed drillers, are deposited into the Drillers/Pump Contractors Indemnity Fund to repair problem wells or pumps when necessary.

According to Gary Glover, who oversees the Board’s D/PC program, the Indemnity Fund has reached its $50,000 cap and the excess is used for inspections and additional enforcement and education activities.
Eight Students Assist at Water Board

Their educational backgrounds range from finance to wildlife ecology, from engineering to zoology, but the bond they share is working with the Water Resources Board through the agency's internship program. Five of the students are lending a helping hand this summer with stream studies and lake assessments in the Water Quality Programs Division. They are Rodney Wilson, an OSU senior in animal science; Hank Ray, an OU senior in zoology; Donald Stover, a mechanical engineering graduate from OU, now pursuing a degree in environmental engineering at Rose State College; and Jeff Ridgeway, a zoology graduate of OU. Chad Shelton, recently discharged from the U.S. Navy, will enroll at OSU in the fall to study wildlife ecology.

Three students are appointed through the state's Carl Albert internship program as executive fellows: Dave Goughnour, an OSU graduate with an MS degree in geography is assigned to the Planning Division, where he gathers data on rural water systems; twomore, Michael McCowan and Brent Riley, both finance majors enrolled in the MBA program at UCO, are working in the Financial Assistance Division, reviewing loan and grant applications. Riley and McCowan first joined the OWRB part-time in January while they attended UCO.

Perhaps in the future, some of these seasonal employees will return to the OWRB to fill permanent positions. Approximately one-third of the Board permanent staff is comprised of former summer employees.

Five students will assist in the Water Quality Programs Division. They are Donald Stover, Jeff Ridgeway, Chad Shelton, Rodney Wilson and Hank Ray.

Dave Goughnour, Brent Riley and Michael McCowan are executive fellows appointed through the state's Carl Albert Internship Program.

Mary E. Whitlow, Editor
Barry Fogerty, Photographer
Brad Nesom, Typography and Layout

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Bimonthly Newsletter of the
Oklahoma Water Resources Board
600 N. Harvey Avenue, P.O. Box 150
Oklahoma City, OK 73101-0150

Robert S. Kerr, Jr., Chairman
Bill Secrest
J. Ross Kirtley
Mike Henson
Richard McDonald
Ervin Mitchell
Dick Seybolt
Lonnie L. Farmer
Paul H. Horton

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In July, the managers of the Water Resources Board attended our fourth annual planning retreat. Its primary focus was to measure our progress on seven agency goals and our effectiveness in serving our customers -- the citizens of Oklahoma and the water resources we are committed to manage and protect. We developed an agency "report card."

We reviewed our agency goals, which are closely tied to specific agency programs -- financial assistance, water quality standards, water rights, planning for our long-range water needs, floodplain management and dam safety. We targeted several areas to measure our effectiveness.

We asked:

Has water quality improved as a result of what we do? The answer to this question was a resounding "Yes!" The combined efforts of our Water Quality Standards group and the folks in our Financial Assistance Division have reduced significantly the discharge of pollutants into state rivers and streams.

To gain input from citizens in other areas of the state, the Board has established a policy of holding meetings several times a year outside Oklahoma City. We brainstormed several other ways to solicit input from our customers, and we'll continue to do so.

Of course, the OWRB cannot be effective without the dedication of its

Senators Gilmer Capps and Robert M. Kerr and Representatives Randy Beutler and Howard Colmer attended the July 12 Board meeting to voice their support for the study of the proposed Mangum Reservoir site. The Board approved a $50,000 contract with the U.S. Army Corps of Engineers to investigate the suitability of a projected dam site for the western Oklahoma reservoir.

"I applaud the members of the Water Board for recognizing the importance of this much needed project," Sen. Capps said. The federal share of the $100,000 appraisal level study will be funded through the Federal Planning Assistance to the States Program which provides matching funds to assist in the preparation of plans for the development, utilization, and conservation of water and related land resources.

"I want to commend my colleagues in the Legislature -- especially Sen. Capps, Sen. Kerr and Rep. Cotner -- for their continued efforts to gain financial and political support for Mangum Reservoir," Rep. Beutler pointed out. He added the reservoir would serve as an important water supply source for local citizens, agriculture and industry as well as offering residents recreational opportunities.

The reservoir is proposed for construction on the Salt Fork of the Red River. The preliminary location for the dam, upstream of the Town of Mangum, was identified during previous investigations by the Bureau of Reclamation. The Bureau considered construction as a strategy to augment water available to the W.C. Austin irrigation project. Other studies were conducted by the Bureau and Corps to determine environmental impacts, cultural resources and recreational needs in the area; and hydrology and geology of the dam and reservoir region.

Stormwater Fee Important in Flood Prevention, Management

Reluctant to become another casualty in the perpetual war fought by Oklahoma communities against relentless floodwaters, the Edmond City Council unanimously approved a local drainage utility fee at its June meeting. In doing so, Edmond is the latest in a growing number of cities to implement this novel approach to financing stormwater facility improvements and maintaining systems to safely and efficiently convey floodwaters.

"Recently, there has been renewed interest by cities and towns in this method of financing stormwater maintenance," according to Ken Morris, state coordinator of the National Flood Insurance Program. "Edmond is the fourth Oklahoma community, to my knowledge, to establish a fee specifically dedicated to stormwater facility maintenance and I expect others to follow suit in the near future." Cities who have already initiated the fee include Tulsa, Lawton and Bixby.

Edmond’s need for a fee was validated by an independent study in the late 1980’s which determined that at least $20 million was required to bring the city’s drainage system up to par -- and additional funds would be needed to maintain the improved system.

"During the city’s review of the drainage fee concept, we received significant input and support from local property owners and homeowner associations," says Joe Davis, Edmond City Engineer. He added that the fee, attached to monthly utility bills, is two dollars for most households (two dollars per 10,000 square feet) with a maximum charge of $100 per month.

The stormwater fee concept in Oklahoma was originated by the City of Tulsa in 1986 and was a direct result of the catastrophic Memorial Day flood of 1984. Ann Patton, Tulsa Community Affairs Manager, estimates that up to 1,000 homes -- of the 4,000 homes damaged -- would have been spared had the city’s stormwater system functioned properly.

Through a $2.58 per month charge for single family residences and a proportionately larger fee (based on the amount of impervious roof and paved area) for commercial developments, Tulsa collects some $9 million each year. The bulk (more than $6 million, or 64 percent) of expenditures goes to maintain the city’s enormous drainage system -- 20,000 stormwater structures (i.e., bridge and street culverts), 3,000 miles of storm sewer lines, 6,000 acres of detention ponds, 90,000 feet of roadside ditches and 400 miles of creek channels (not including the Arkansas River).

"Tulsa’s fee program is based on the fact everyone in a community contributes to runoff and the flooding problem, therefore all should help pay for it," Patton points out. The Tulsa Department of Public Works (formerly Department of Stormwater Management, created in 1985) administers the fee and is responsible for all flood, drainage and stormwater programs.

Although the stormwater fee can serve as a stable funding source for maintenance activities, Morris emphasizes that the fee is not for all communities who experience stormwater management problems. "Obviously, small cities and towns with a limited tax base would find it difficult to levy a stormwater utility fee on local citizens. Others may be in a position to secure enough state or federal funding to alleviate flooding problems," he says.

Still, Morris hopes that communities will make stormwater management a priority. "I cannot overstate the importance of keeping storm sewers and channels open so they are able to properly carry floodwaters, thereby preventing property damage as well as loss of life." However, he stressed that before cities and towns pursue such action in creeks or streams, they should first check with the U.S. Army Corps of Engineers to verify that the proposed work will not increase downstream flooding problems or harm sensitive wildlife habitats, such as wetlands.

FEMA Plans Town Meetings

In an effort to identify incentives that will encourage communities to implement measures to reduce flood damages, the Federal Emergency Management Agency is hosting a series of town meetings across the nation.

The meetings, scheduled in each of the 10 FEMA regions from September 7 to October 13, are part of a new federal strategy to strengthen hazard mitigation programs. The meeting for Region VI states, including Oklahoma, will be held in Houston on September 28. Input from local and state officials, as well as the general public, will strongly influence development of a proposed national hazard mitigation strategy which will be submitted to President Clinton.

For more information, contact Albert Ashwood of the Office of Civil Emergency Management at (405) 521-2481.
How to Survive a Community Assistance Visit

Community Assistance Visits (CAVs) are used by the Federal Emergency Management Agency, OWRB and other appropriate state agencies to monitor a community’s progress in complying with state and federal floodplain management requirements. So that local officials responsible for their community’s participation in the National Flood Insurance Program may know what is required of them during a CAV, the OWRB offers the following advice (reprinted, in part, from the Texas Natural Resource Conservation Commission newsletter) in how to survive this very important obligation.

Before an OWRB or FEMA representative formally visits your community, are you:

◆ Making locally adopted floodplain management regulations consistent with minimum criteria established under state and federal law?
◆ Enforcing local regulations?
◆ Reviewing all development permits to determine if a flood hazard exists?
◆ Ensuring that new residential structures are elevated to (or above) the 100-year base-flood elevation?
◆ Ensuring that new non-residential structures are elevated or floodproofed up to (or above) the 100-year base-flood elevation?
◆ Keeping records of elevations of the lowest first floor (including basements); elevations of floodproofed buildings; the number of permits and variances issued in flood hazard areas; the number of other permits issued for filling, dredging or other changes to the 100-year floodplain; and are you prepared to produce these records upon request?
◆ Inspecting community developments to verify “as-built” elevations?
◆ Performing periodic inspections in the community to determine if structures have been altered or substantially improved?
◆ Requiring a certification that no increase in the community base-flood elevation will occur as a result of any encroachments in your community floodway?

If you answered no to any of these questions, your community could receive an unsatisfactory CAV report. Extensive problems could result in suspension of your community from the NFIP. Most importantly, failure to enforce floodplain management regulations could make your community susceptible to future floods. Don’t wait. Make the necessary changes to get your local program in compliance and stop the flood damages.

Hazard Video Available

The OWRB has created a video to inform community officials of measures to decrease their risk of flooding as well as funding and related benefits available to them through the federal Hazard Mitigation Grant Program (HMG). According to Ken Morris, National Flood Insurance Program coordinator, OWRB staff plan to utilize the 10-minute video in conjunction with community assistance visits (CAVs) to NFIP members. CAVs or community assistance contacts (CACs) are conducted at least once every two years for each member entity.

“This video will serve as a valuable communication tool in our ongoing effort to educate members on various aspects of floodplain management. Hazard mitigation, in particular, offers significant opportunities to reduce a community’s vulnerability to flooding,” Morris explained.

He added that the agency is currently planning additional videos on local administration of the National Flood Insurance Program and a series of 30-second public service announcements.

The hazard mitigation video was produced by the Oklahoma State University Telecommunications Center and funded through a grant from the Federal Emergency Management Agency. Loan copies of the production are available to interested communities by calling the OWRB at (405) 231-2576. If you are interested in obtaining HMG funds, call the Department of Civil Emergency Management at (405) 521-2481.

An intense 5-inch rain the night of May 25 flooded the creek in the background at right, hurling a car occupied by five children and their grandparents into floodwaters near Duncan. Three of the young children died in the turbulent waters as their grandmother held two more children and clung to a tree until rescuers came. The stormwater was estimated three feet deep over the roadway; more than 8 feet deep, measured from the creekbed to the top of the floodwaters. Drivers often underestimate the depth and velocity of floodwaters on the roadway. It is even more treacherous after dark, when visibility is reduced by darkness and falling rain. Since the tragic accident, signs have been erected warning motorists of the hazard of water on the roadway.
At the July 12 Board Meeting in Oklahoma City:

Executive Director Patty Eaton reported that 785 stream water rights are eligible for cancellation; 278 voluntary cancellations have been received and approximately 400 hearings have been scheduled. She commended the Water Management Division for its dedication and hard work in updating water rights information.

Eaton announced that the OWRB cooperative leak detection program with the Oklahoma Rural Water Association is undergoing revision. Gov. Walters has approved modifications to the program that will enhance the benefits to rural water districts.

She announced the date of the Water Conference is November 2 and asked for Board members' input.

The Board approved grants to the Douglas PWA, Garfield Co.; RWD #7, Delaware Co.; RWD #12, McIntosh Co.; Marland PWA, Noble Co.; Town of West Siloam Springs, Delaware Co.; Denison Public School, McCurtain Co.; Haworth PWA, McCurtain Co.

The Board approved loans to Hall Park MA, Cleveland Co.; Muskogee MA, Muskogee Co.; Beaver PWA, Beaver Co.;

A memorandum of agreement was signed with the Tulsa District Corps of Engineers to continue study on the proposed Mangum Reservoir site. The Corps was represented by Lt. Col. P.J. McConnell, Deputy District Engineer of the Tulsa District. Signing for the Board were Chairman Ross Kirtley and Secretary Ervin Mitchell.

Temporary permits for the use of groundwater were approved for the following applicants: GHG Farms, Coal Co., four acre-feet for swine operation; Arizona U. and Reta Jeffries, Ottawa Co., 10 acre-feet for poultry operation; Arthur D. Hargus, McClain Co., five acre-feet for swine operation. A regular permit for the use of 50 acre-feet of stream water was approved for Betty Bohl Baker, Hughes Co., for a poultry operation. All had been protested cases, on which hearings had been held and recommendations made by the hearing examiner.

The Board approved four regular permits and 11 temporary permits for groundwater use; 10 regular permits for stream water use. The Board approved new licenses for Doyle C. Marksberry, Jr., water well driller; John Alderson, Alderson Pump and Well Service, well driller; Phillip K. Ewbank, pump installer. The Board certified Robert Knopf of the Winnek Co., Inc., for pump installation on his existing well drillers license.

The Board denied a request for reconsideration of board orders approving three permits granted to Pig Improvement Co., Inc. in Kingfisher County.

The Board approved an order to establish the Tentative Maximum Annual Yield for three Groundwater Basins: the Antlers Sandstone, North Canadian Alluvium and Terrace Phase III-A and Phase III-B. These yields will be reviewed by citizens of the area at local public meetings, then returned to the Board for approval of the Final Order.

Attention Subscribers: The Oklahoma Water Resources Board wants to stay in touch, but postage is precious. If you no longer wish to receive the "Oklahoma Water News," please let us know by calling (405) 231-2500 or notifying us by FAX (405) 231-2600. If we need to correct your present mailing label, let us know that also. Please include zip code in address information.
Circle November 2 on the Calendar...

Come to the Governor’s Water Conference

The Water Resources Board and 25 other sponsors announce the Fifteenth Annual Governor’s Water Conference will be held on Wednesday, November 2, at the Marriott Hotel in Oklahoma City.

The Conference theme, “Planning Today for a Secure Tomorrow,” will emphasize the importance of water and environmental planning. Oklahoma Senator Gene Spivey will open the Conference with an address entitled, “Water Resources: Strategies to Carry Us Forward.”

Local, regional and national authorities will speak on floodplain management, the Oklahoma Comprehensive Water Plan, agribusiness and environmental concerns, Indian water rights, wetlands banking, multipurpose use and interstate concerns in the Neosho River Basin and other timely water topics.

The Oklahoma Congressional delegation has been invited to update conference delegates on pending water and environmental legislation and impacts on water planning and management issues. Governor David Walters and gubernatorial candidates are invited.

According to a long tradition, the Conference will present Water Pioneer Awards to a few citizens who have made significant contributions to the development, conservation and preservation of Oklahoma’s water resources.

Registration costs $30 and includes lunch. For more information, please call (405) 231-2576. To register in advance, please complete the registration form below. Or you may FAX registrations to (405) 231-2600.

Governor’s Water Conference
P. O. Box 150
Oklahoma City, OK 73101-0150

Please make $30 check or purchase order payable to GOVERNOR’S WATER CONFERENCE. No refunds considered after October 26. Registration includes lunch.

Name ____________________________ ____________________________
Representing __________________________________________________
Address ____________________________ State ____________________________
City ____________________________ Zip ________ Phone ________

Continued on page 3
PUBLIC HEARING NOTICE

TENTATIVE MAXIMUM ANNUAL YIELD

Antlers Sandstone Groundwater Basin
North Canadian River Alluvium and Terrace
Groundwater Basins

Pursuant to Oklahoma Statutes, public hearings on the maximum annual yield of fresh groundwater from the Antlers Sandstone Groundwater Basin and two reaches of the North Canadian River Alluvium and Terrace Groundwater Basin will be held by the Oklahoma Water Resources Board at the dates, locations and times listed below.

At each public hearing, the Board will present evidence of geological finding and determinations upon which the tentative maximum annual yield on the basins have been based. Any interested party may appear and present evidence or comments in response to, in support of, or in opposition to the Board's tentative findings. Appearances at the hearings may be in person and/or by legal counsel. Evidence may be presented orally or in writing.

Copies of materials relating to each of the maximum annual yield determinations are available for examination or inspection at the locations listed below and at the OWRB's main office, 600 N. Harvey, Oklahoma City, 73101-0150. If there are any questions concerning this matter, please contact the OWRB Water Management Division by letter at the above address or by telephone at (405) 231-2531.

ANTLERS SANDSTONE GROUNDWATER BASIN

October 12, 1994, 9:00 a.m.
Public Service of Oklahoma
Conference Room
100 E. Main Street
Idabel, OK
(405) 286-3391

Copies of materials available for examination at Idabel Public Library.

October 12, 1994, 2:00 p.m.
Choctaw County Library
Heritage Room
208 E. Jefferson
Hugo, OK
(405) 326-5591

Copies of materials available for examination at Choctaw County Library.

October 13, 1994, 10:00 a.m.
Robert L. Williams Library
Utterback Room
323 W. Beech
Durant, OK
(405) 924-3486

Copies of materials available for examination at Robert L. Williams Library.

NORTH CANADIAN RIVER ALLUVIUM AND TERRACE GROUNDWATER BASINS

Reach III-B (Portions of Seminole, Okfuskee, Hughes, Okmulgee, McIntosh Counties)

October 4, 1994, 10 a.m.
Wetumka Public Library
202 N. Main
Wetumka, OK
(405) 452-5825

Copies of materials available for examination at Wetumka Public Library.

Reach III-A (Portions of Pottawatomie and Seminole Counties)

October 4, 1994, 3:00 p.m.
Shawnee Public Library
Community Room B
101 N. Philadelphia
Shawnee, OK
(405) 275-6353

Copies of materials available for examination at Shawnee Public Library.
Leak Detection Expanded

The Statewide Rural Energy and Water Conservation Program recently has been expanded to include the cost of repairs to leaking rural water systems in need of renovation. Previously, loans were available only for water audits and leak detection activities. Funds are made available by Gov. Walters from “oil overcharge” monies.

The cooperative effort of the Water Resources Board and the Oklahoma Rural Water Association makes no-interest loans up to $30,000 available to entities who want to reduce leakage and power costs related to water delivery. It is estimated rural Oklahoma water systems lose millions of gallons of treated drinking water each year through line leaks and malfunctioning water meters.

Rural water districts, corporations, municipalities and public trusts who provide service to 10,000 or fewer water users are eligible to apply for loans under the new program. For more information, call the OWRB at (405) 231-2576 or the ORWA at (405) 672-8925.

Staff Revises CPP Document

Shon Simpson, Water Quality Division chief, announced that staff recently made pivotal recommendations concerning implementation of Oklahoma Water Quality Standards in the state’s Continuing Planning Process (CPP) document. The CPP is a document required by EPA which describes how water quality programs will be implemented in Oklahoma.

Simpson said restructuring of the state’s environmental agencies necessitated the revision. The primary focus of the CPP document is the process by which standards will be implemented as limitations in wastewater discharge permits. Changes, additions and clarifications developed by OWRB staff include a requirement to measure background concentrations in determining if a permit is needed; a process for estimating mean annual flows on ungaged streams in calculating permit limits for human health criteria; a process for implementing acute and chronic toxicity testing; and specifics for implementing human health and aquatic life numerical criteria.

Fourth in a Series...

Meet the Water Resources Board

Working with Wagoner RWD #5 and today managing Wagoner RWD #4 (with 3,800 meters, the state’s second largest district) has given Bill Secrest exceptional insight into producing drinking water for the public. Add to that, a boyhood in the country five miles east of Coweta and 12 years supplied by the Verdigris River, chemicals, labor and electricity contribute to an average cost of 54 cents per thousand gallons, but add the cost of debt service, and the final cost is over a dollar.

“Treatment costs are escalating like crazy, with all the new EPA regulations,” he said. “Right now, we’re required to test for 62 contaminants, and EPA is adding about 20 more to the list each year. We used to test for seven.”

Secrest pointed out that lab charges and chemical costs drive up their costs. He agrees that systems need to test for 20 to 25 contaminants, but there are 20 or more contaminants on the EPA list that have never been found in Oklahoma. He holds hope for the Slattery-Billey Bill now before the Congress that proposes more lenient testing for rare contaminants.

“If it costs us $22,000 a year now to test for 60 contaminants, imagine the costs when the list grows to 90, as it will soon,” he added.

“We’re lucky to have such good water in Oklahoma,” Secrest confirms that we’ve seen the last of cheap water. “In the past, most cities had their rates structured so the more water you used, the less you paid. No more. It’s appropriate that the Board’s Financial Assistance Program awards points to grant applicants who promote conservation by an increasing block rate structure.”

He points out that the Financial Assistance Program has been one of the most successful initiatives. “I’m proud to be a part of it,” he said.

Bill Secrest

Director, continued from page 1
ning Act in the 1960’s; the Water Resources Development Act of 1986; and in 1994 has proposed to the Clinton Administration an exciting new National Water Policy Project to reform the process and to develop a true state-federal policy model.

I am excited by the opportunity and humbled by the challenge of serving this prestigious organization as its chair. In every meeting, in every conversation, I promise to promote Oklahoma’s mission and water interests.
FAP is Unique in the Nation, A Made-in-Oklahoma Success

One of the most successful programs of the Water Resources Board is the loan and grant program administered by the Financial Assistance Division. The three-tiered program enables qualified entities to develop and improve water and wastewater facilities through low-interest loans, grants and State Revolving Fund (SRF) loans.

The program was established in 1982 by a series of laws and a $25 million appropriation from the Oklahoma Legislature to the Statewide Water Development Revolving Fund. Money for the loan facet of the program is generated by bond sale proceeds. So successful is the loan program that Standard and Poor’s has consistently awarded OWRB bonds the exceptional AA credit rating.

Joe Freeman, FAP division chief, points out that the program is unique in the nation and never has experienced a default by a borrower. Freeman said by mid-August, the Board had approved 147 loans totaling more than $167.8 million.

A separate, yet similar, tier of the Financial Assistance Program is the Statewide Revolving Fund (SRF) Program, which, with funds available by the Legislature or provided through Board issued financing, and enhanced by federal money, replaced EPA construction grants program. Its intent is to assist cities, towns, rural sewer districts and other qualified entities in replacing or renovating wastewater facilities. Often, the SRF Program is the only avenue open to smaller communities and rural sewer districts in achieving compliance with EPA wastewater treatment regulations.

Freeman said the SRF loan program has enabled 27 projects for more than $117.9 million.

The third tier of the thriving program is the emergency grant initiative. Money for the grant program originates from interest earned on the Statewide Water Development Revolving Fund and interest on OWRB bond issue reserves. The grant program has provided nearly $20 million in critical assistance to 338 Oklahoma communities. (See related article on the Board’s point system.)

SRF Program Plans Public Meeting

Paul Hodge, who oversees the Board’s SRF Loan Program, announces a Public Meeting on September 20 to receive comments on the Preliminary FY ’95 Intended Use Plan and Priority List. The meeting will be held in Room 112 of the Water Resources Board, 600 North Harvey in Oklahoma City at 1:30 p.m.

The 1987 amendments to the federal Clean Water Act provided for the states to establish a State Revolving Fund (SRF) to make loans to eligible entities for the construction of sewage treatment facilities. The OWRB administers the SRF program and conducts project reviews for selecting entities to be considered for loans. The program replaced the EPA Construction Grants Program with federal funding authorized by the Clean Water Act. Federal funds provide 83.33%, and state matching funds appropriated by the Oklahoma Legislature provide 16.67% of the total available for wastewater projects.

Hodge said uncommitted prior year federal and state funds, FY 95 federal and state funds, investment income and repayments of principal and interest totaling approximately $43.27 million are expected to be available for wastewater loans. Cities, towns, entities authorized by the State of Oklahoma, rural sewer districts and political subdivisions may submit applications. Priority points are awarded for readiness of the project to proceed, water quality and public health considerations.

For more information on the Intended Use Plan, Priority List or the September 20 Public Meeting, call Paul Hodge at the Oklahoma Water Resources Board, (405) 231-2621.

A $605,000 FAP loan assisted Choctaw Utility Authority in raising the existing standpipe 28 feet to provide additional water for firefighting and increase water pressure in part of the distribution system.
Here's How We Award Priority Points

If you wonder why one community awarded a grant from the Water sources Board and another applicant isn’t, it’s probably a question points. According to Joe Freeman, chief, the Financial Assistance Division receives many more requests for funds than the program has money. Freeman says there are now applications on file requesting $5.2 billion. And although the emergency fund is bolstered regularly with interest earnings on the Statewide Water Development Revolving Fund and interest on bond issue reserves, available funds fall far short of meeting the needs.

In order to fairly evaluate the merit of each applicant, staff developed a system for awarding priority points. Once the eligibility of the applicant is established and the likelihood of other financing alternatives weighed, AP staff assess each application for emergency — defined as a life, health or property-threatening.

Freeman says the FAP staff consider...

Nature of the emergency (up to 50 points). Total loss of water supply or sewage system or loss of a major component of a system by a natural or unforeseen disaster (tornado, fire, flood etc.) earns maximum points. A 10-point emergency (contaminated water supply, raw sewage spill, etc.) presents an imminent health hazard.

Current sewer and water rates (13 points). High bills get higher points. Rate structure should be sufficient to provide routine operation and maintenance costs and reserve funds for emergencies. Rate structures are important. A flat rate or decreasing rate that discourages conservation earns points. An increasing block rate, more points. An applicant earns points if it has dedicated a sales tax to water/sewer improvements.

Monthly debt payment (10 points); Indebtedness per customer is determined by taking the applicant’s monthly requirements for debt service and dividing it by the number of customers served by the system. Low indebtedness indicates the community could afford loan assistance instead of a grant, freeing up more FAP grant funds for other communities. High indebtedness receives high points.

Median household income (10 points). In areas with low median household incomes, there is little opportunity to raise water/sewer rates. High points are awarded to communities with low median household incomes; a single point for incomes up to $27,999.

Ability to finance the project (12 points). An important factor is the ability of the applicant to finance the project without grant assistance. A formula estimates the amount water/sewer rates would have to be raised to finance the project through a loan. High points are allowed applicants that would have to increase rates significantly.

Amount of grant requested (10 points) - To ensure fair and equitable distribution of limited grant funds, the Board encourages applicants to request the smallest grant possible. Applicants for $25,000 or less are awarded high points; requests for $95,000 to $100,000 forfeit five points.

Freeman emphasized that a score of 60 of the possible 120 makes an applicant eligible for the Priority List, but those which gain funding traditionally score higher than 70.

For more information on the Board’s Financial Assistance Program, call the Water Resources Board at 231-2621.
At the August 9 Board Meeting in Oklahoma City:

Executive Director Patty Eaton said the OWRB has received notification of approval from the Environmental Protection Agency for the $9.6 million grant for the SRF Program.

She announced also that Board members Bill Secrest and Lonnie Farmer have been approved by the House of Representatives to serve on the Joint Committee on Financing Environmental Infrastructure for Economic Development.

Eaton said the agency had been commended by the Office of Personnel Management for being one of the few state agencies in full compliance with OPM rules concerning mandatory supervisor training. She also noted staff had been recognized by the United Way for 100 percent participation and for being among the top givers.

The OWB is seeking ways to get more input from the public into the rule-making process, so informal public meetings have been scheduled in cities around the state.

The Board approved grants to the Barnsdall PWA, Town of Brooksville, Stevens County RWD #1, and Enid Municipal Authority.

The Board approved loans to the Weleetka PWA and Longtown RWD #1.

The Board approved seven applications from the Department of Wildlife Conservation for the construction of wildlife pit ponds in the floodplain for wildlife watering during dry seasons.

The Board approved the protested application of the City of Tulsa Rogers County Port Authority for the use of four acre-feet of groundwater to be used in the Lower Bird Creek Wastewater Treatment Plant. The Board also approved 11 other new water rights. Groundwater permits were approved for the City of Clinton for municipal use; Dorchester Hugoton Ltd. (Texas Co.) for commercial use; Prairie Village Baptist Church (Beckham Co.) for commercial use; George Dennie (Texas Co.) for irrigation and swine operations; Mobil (Carter Co.) for fire protection; 3M Company (Custer Co.) for industrial use; Shell Western, Inc. (Harper Co.) for remediation; Western Fibers, Inc. (Harmon Co.) for irrigation; Paul H. and Sammy Horton (Harmon Co.) for irrigation; Enogex, Inc. (LeFlore Co.) for industrial use; and Audrey Treece (Cimarron Co.) for irrigation.

The Board approved licenses for five new well drilling firms and approved licenses for six new operators. Four new operators were licensed for previously licensed firms.

### FINANCIAL ASSISTANCE PROGRAM UPDATE
Approved at August Board Meetings

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Mary E. Whittlow, Editor
Barry Fogerty, Photographer
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OKLAHOMA WATER NEWS
Bimonthly Newsletter of the Oklahoma Water Resources Board
600 N. Harvey Avenue, P.O. Box 150
Oklahoma City, OK 73101-0150

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Water, Enviro Planning Theme Of Governor’s Water Conference

Nov. 2 Conference to explore issues on state’s horizon: CAFO’s, Indian water rights, wetlands, interstate policy

What’s ahead in the coming decade for planners concerned with water resources and the environment? Speakers at the Fifteenth Annual Governor’s Water Conference on November 2 will pinpoint the issues that are likely to concern Oklahomans of the 21st century.

The Conference will be held in Oklahoma City at the Marriott Hotel, with registration opening at 8 a.m.

Water Resources Board Chairman Ross Kirtley will call the meeting to order at 8:30, then Sen. Gene Stipe will describe “Water Resources Strategies to Carry Us Forward.” Stipe’s enduring interest in water resources began with his election to the Oklahoma House of Representatives in 1949. He was elected to the Senate in 1957, and earlier this year, marked 45 years of service in the Legislature. Maintaining the planning theme, Water Resources Board Executive Director Patty Eaton will introduce a visual progress report on efforts to update the 1980 Oklahoma Comprehensive Water Plan, the flexible, long-range strategy for managing and developing the state’s water resources. In 1992, House Bill 2036 directed the Board to prepare 10-year updates to the Plan, with the first due in 1995.

Raymond “Buddy” Young, Region VI director of the Federal Emergency

Continued on page 2

Governor’s Water Conference
P. O. Box 150
Oklahoma City, OK 73101-0150

Please make $30 check or purchase order payable to GOVERNOR’S WATER CONFERENCE. No refunds considered after October 26.

Registration includes luncheon.

Name _______________________________________________________
Representing ________________________________________________
Address _____________________________________________________
City ____________________________ State ________________
Zip ____________________________ Phone (______) _______________

from the desk of the Director...
Management Agency, will focus on FEMA’s innovative strategies in “Sharing the Challenge: Floodplain Management into the 21st Century.” Young will describe a new federal initiative to drastically reduce losses in the nation’s floodplains. FEMA emphasizes replacement of traditional approaches with flood hazard mitigation incentives, prudent land-use practices, and allowing rivers to reclaim natural channels and floodplains.

A mid-morning panel entitled “Water Planning Issues on the Horizon” will be chaired by District Chief Kathy Peter of the U.S. Geological Survey. Drew Kirshen, OU Professor of Law, will discuss Agribusiness and Agriculture (confined animal feeding operations and their impact on the economy and environment.) Indian Water Rights, will be the topic of Phillip D. Lujan, OU Professor of Communication and Chief Judge of the Sac and Fox.

Mason Mungle, executive director of the Oklahoma Conservation Commission, will discuss the state’s Wetlands Policy, then Col. Otis Williams, district engineer, Tulsa District Corps of Engineers will brief conference on Interstate Planning in the Neosho River Basin.

Invited to the pre-luncheon podium are members of the Oklahoma Congressional Delegation.

The Governor’s Water Conference will recognize Oklahoma Water Pioneers in the program segment after lunch. Since the Water Pioneer award was created in 1985, 63 Oklahomans have been recognized for significant contributions to the development, conservation and preservation of the state’s water resources. Also on the luncheon agenda, conference will hear an update on the activities of the Joint Committee on Financing, Environment and Infrastructure for Economic Development by Rep. Randy Beutler, committee co-chair, and remarks by Sen. Jack Bell, chairman of the Kiamichi River Basin Water Supply Study Committee.


The Conference will adjourn at approximately 3 p.m.

Registration costs $30 and includes the luncheon. Use the convenient registration form below, phone your registration to the Oklahoma Water Resources Board at (405) 231-2576 or register by fax at (405) 231-2600. For further information, please call 231-2576.

The Marriott Hotel offers a special $70 room rate (single or double) to Conference guests who make reservations by October 26. For reservations, call the Marriott at (405) 842-6633.

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Public Meetings on Standards Underway

The 1994 triennial revision of Oklahoma’s Water Quality Standards got underway October 6 with the first of a public meeting at the offices of the Oklahoma Water Resources Board in Oklahoma City. According to Water Quality Programs Division Chief Shon Simpson, two other informal public meetings and two formal public rulemaking hearings will complete the process.

The meeting schedule is as follows:

Informal Public Meeting
November 3, 1:30 p.m., OWRB Offices, 600 N. Harvey, Oklahoma City

Agenda items include discussions of modification of numerical aquatic life criteria, applicability of agricultural beneficial use criteria and separation of groundwater standards from surface water quality standards.

Informal Public Meeting
December 1, 1:30 p.m., OWRB Offices, 600 N. Harvey, Oklahoma City

Agenda items include Use Attainability Analyses (beneficial use recommendations for 23 streams), temperature criteria for implementation purposes and other topics as needed.

Formal Rulemaking Hearings:
January 11, 1995, 6:30 p.m., State Agencies Bldg., 440 S. Houston, Tulsa (tentative)

January 12, 1995, 6:30 p.m., OWRB Offices, 600 N. Harvey Oklahoma City (tentative)

For further information on Water Quality Standards, public meetings or rulemaking hearings, call (405) 231-2541.

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Kerr Honored by Colleagues

Robert S. Kerr, Jr. was honored by his colleagues on the Oklahoma Water Resources Board at the September 13 meeting. Board member Mike Henson presents Kerr a plaque recognizing his service and dedication during the six terms his fellow members elected him chairman of the Water Resources Board. He was also awarded a Resolution of Appreciation from Governor Walters.
Eaton Elected ICWP Chairman

Patty Eaton, OWRB executive director, was installed as chairman of the Interstate Council on Water Policy on September 7 at the organization’s annual meeting in Philadelphia. The Interstate Council on Water Policy is a national association of state and regional water officials concerned with all aspects of water development, management and policy. Eaton has represented the Water Resources Board as a state member of ICWP since 1991.

She has served on the ICWP Board of Directors since 1992 and was installed as first vice chair at the 1993 annual meeting. Eaton has been a member of the ICWP Audit and Bylaws Committee, Policy Committee and Executive Committee and has served as chair of the Administrative Committee for 1993-1994.

Board to Study Lake Arcadia

Shon Simpson, Water Quality Programs chief, announced the Environmental Protection Agency has awarded a $148,000 grant to the OWBR to study the water quality of Lake Arcadia. Total cost of the project will be approximately $211,429, the balance to be underwritten by local sponsors.

Simpson said the grant is awarded through the EPA Clean Lakes program, an effort to restore the recreational benefits of publicly owned lakes.

Paul Koenig of the Board’s Clean Lakes Section will oversee the Phase I Study, expected to begin in June 1995.

Phase I involves sampling water, soil and fish, then making recommendations for remediation.

Lake Arcadia, a Corps of Engineers project completed in 1986, is located on the Deep Fork River near Edmond, north of Oklahoma City.

Ark River Shiner Endangered?

The U.S. Fish and Wildlife Service has proposed to list the Arkansas River shiner as an endangered species under the 1973 Endangered Species Act. Earlier, the small fish was abundant and widespread throughout the Arkansas River and its tributaries. However, within the last 20 years, it has disappeared from 80 percent of its historic range, with the Arkansas River Basin population restricted to the Canadian River in New Mexico, Oklahoma and Texas.

Upon listing, the Arkansas River shiner would receive the protection and recovery opportunities provided by the Endangered Species Act. According to the Fish and Wildlife Service, no restoration activities are yet planned.

According to OWBR Chief Engineer Harold Springer, listing could affect current and future development in the Canadian, North Canadian and Cimarron River Basins. Springer said the OWBR had requested the Fish and Wildlife Service to hold a public meeting to explore the potential impact of the listing on development in the Arkansas River Basin.

Pet Product Migraine Cure?

A magnesium-free bottled water that was originally developed to prevent urinary problems in pet cats has been hailed as a treatment for migraine headaches in humans. Bernard Schroeder, a retired insurance salesman in Jacksonville, Florida, with a degree in chemistry, developed the special water for domestic cats at the urging of a veterinarian friend who told him magnesium in water could cause problems for some felines.

Quite by coincidence, an office-mate of Schroeder drank a bottle of the new product while she had a migraine and discovered that the water relieved headache symptoms. Schroeder asked her to log her headaches and her doses of the water over a period of time. Each time she suffered a migraine and drank the bottled water, the headache dissolved.

News of the product’s success in alleviating migraines has spread only by word of mouth, but its fame has boosted sales to 2 million bottles. Schroeder says the magnesium-free water, marketed under the name H2O Plus, is available in some drug and grocery stores from Florida to California. Its manufacturer claims it’s nothing more than filtered tap water with the magnesium removed, and some potassium and electrolytes added to improve absorption in the body.
Stream Water Right: Why Does the OWRB Require Permittee to Use It or Lose It?

When a holder of a right to use stream water receives a notice of hearing to reduce or cancel the water right, questions often arise as to the reason why water right holders must use the water or lose rights to take it. In this article OWRB General Counsel Dean Couch explains the basis for having a use-it-or-lose-it requirement in laws governing stream water use.

Oklahoma follows the appropriation doctrine to regulate use of water from streams and lakes. While the specific rules and regulations governing that program can get complex, the basic elements of the appropriation doctrine are simple and stem from historical events and means to encourage development of the West in the days of settlers on the frontier.

Priority system carries over from California's Gold Rush days

The first basic element of the appropriation doctrine is "priority in time gives the better right." This idea was carried over from the old gold mining days in California where the federal government owned the land. There, disputes over mining claims that were not settled with a gun went to court where judges figured that the person who staked the claim first should be able to keep it over someone who staked the same claim later. What this means for water rights is that if you have an earlier claim date than another person who wants to take water from a stream, and the stream gets too low to supply both of you, your uses should be satisfied first. Under Oklahoma's old law, the date work started on any project to put the water to use was considered the claim date. Now, the date of filing an application for a permit with the Oklahoma Water Resources Board is considered the priority date of a permit once it is issued. If a dispute arises over who can use the water in a stream or lake when there is not enough for everyone, a court would look to the priority date to see who has the best claim.

Use-it-or-lose-it policy kept the West growing

The second major element to the appropriation doctrine is the requirement to use the water once a claim has been made, and if there is no use, the water right is lost. This "use-it-or-lose-it" element (called a "forfeiture") also has its roots in the way mining disputes were settled long ago. Having an earlier claim date was not enough. You had to work the mine to keep the claim. If someone just "sat" on a claim without working the mine, or if that person just disappeared and abandoned the claim, courts would allow someone else to make a claim and begin working the mine.

These decisions allowed prosperity to grow by keeping mining activities going in the old West. Requiring use of a mine or use of water encouraged continued settlement of that developing part of the United States, a policy fostered by our federal government in the 1800s.

For water rights in Oklahoma, the requirement to put water to use shows up in several ways. Before a permit is issued, the Board must determine that the person applying has a present or future need for the amount of water requested. After a permit is issued, the law requires that the permittee start ("commence") construction on the project within two years. As examples, building a pond or buying irrigation equipment qualifies as "commencement".

The law then makes an initial or first water use requirement. After a project is commenced, the full amount of water authorized by the permit must be used within a certain time period. The time period within which this first use must be made is usually seven years from the date the permit is issued. If full use does not occur within that time period, the water right is reduced to the amount used and the permit becomes "vested" for the reduced amount. The permit will be canceled if there is no use. For instance, if an irrigator gets a permit in 1980 to use 500 acre-feet of water each year, and the most water used in the non-consecutive seven years is 350 acre-feet in 1985, the water right will "vest" for 350 acre-feet.

Another use-it-or-lose-it provision then kicks in after initial period allowed to begin using the water. Like the requirement to use the water for the first time after the permit is issued, the "vested" amount must be used.

Continued on page 5
The new vested amount is then 5,000 acre-feet. The cycle then starts again. The municipality must use the full 5,000 acre-feet in at least one year in the next seven. If the 5,000 acre-feet usage occurred in 1987, the municipality would have to use the full 5,000 acre-feet in any one year through 1994 (seven years after 1987) to prevent another reduction in the water right.

These use-it-or-lose-it requirements were included in Oklahoma's law to help prevent claimants from tying up water rights.

To prevent water rights from being tied up by people who can't or won't use the water, the laws were written to free up water rights to give others a chance to make claims to what they may need. This action encourages growth and prosperity, just like the frontier days of old.

The Water Management Division of the Board is in charge of keeping up with rights to use stream water. If you receive a letter or notice in the mail about a proposed reduction or cancellation of your water right and have questions, please contact J.A. Wood, Chief of the Water Management Division, in Oklahoma City at (405) 231-2531.

"Unsafe levels of nitrates in the aquifer, according to the EPA standard of 10 ppm, forced us to look for other sources," Farmer said. "Rather than coping with the high costs of treating the nitrate-contaminated water, we decided to form a regional water supply system to share the costs of a new system. We formed the Tillman County Water Development Authority and contracted with the City of Frederick to buy water from Lake Frederick and Tom Steed Reservoir to blend with the lower quality groundwater."

Farmer recalls that the cost to construct the system and bring the communities on line was about $1.9 million. Grant and loan funds from the Water Resources Board, State Department of Commerce and Farmers Home Administration enabled the system's development.

"As a Board member of both the Water Resources Board and the ORWA, I am proud that the OWRB Financial Assistance Program supported creation of this system with more than $415,000 in grant and loan funds," he said.

Today, the Tillman County Regional Water Supply system stands as a model for other Oklahoma communities. Farmer and his associates are models of ingenuity, cooperation and perseverance.
At the September 13 Board Meeting in Oklahoma City:

On the portion of the agenda devoted to the Financial Assistance Division, the Board approved a loan for $3,185,000 to the Broken Arrow Municipal Authority. According to FA Division Chief Joe Freeman, the loan will fund improvements to the city's wastewater treatment plants. The Board also approved a $410,000 loan to the Washington Municipal Authority in McClain County for wastewater improvements that will bring the Authority into compliance with the DEQ consent order. The Board approved a request from Langston PWA to apply unused funds left in the construction account for the replacement of water lines serving customers northwest of Langston.

Mr. Freeman reported to the Board that the SRF-state match note issuance is proceeding on schedule. The Board approved Boatmen's Bank to provide trustee services and a resolution authorizing the issuance of SRF notes. The notes will fund the 20 percent state match required under the Clean Water Act to provide the 1994 capitalization grant.

J.A. Wood, chief of the Water Management Division, asked and received Board approval for three regular groundwater permits, seven temporary permits to use groundwater, and five regular permits to use stream water. Two protested applications for the regular use of groundwater were approved for Triple S Farms L.C., Tillman Co. and Cama Trust, Canadian Co.

The Board approved cancellation of five stream water rights due to non-use within the seven-year time limit.

The Board approved licenses for seven new well drilling firms: Geotechnical Services, Inc.; Mowdy Water Well Service; Hinkle Hardware; Prairie Land Environmental Remediation; GM Enterprises; Mid-America Environmental and Ward Environmental. Operators certificates were issued to nine drillers/pump installers associated with those firms. They are: Charles A. Brewer, Steve Gensler, Robert Peterson, Don Mowdy, Jr., Leon Hinkle, Lot F. Taylor, Terry Long, James J. Lloyd and Brent M. Ward. Three applications were approved to add activities and operators to existing licensed firms.

The Board approved an agreed settlement whereby the well drilling license held by Robert A. Hall of Norman is voluntarily suspended for the three months previously served. Hall had submitted a written admission of the violations and had voluntarily suspended activities.

| FINANCIAL ASSISTANCE PROGRAM UPDATE |
|Approved at September Board Meeting |
| FAP Loans (4.522% 30 year maximum term) |

| Grant |
|-----------------|-----------------|
| Broken Arrow MA | $3,185,000      |
| Washington MA   | $410,000,000    |
| Grants |
| (None at September Board) |
| Grants |
| Totals as of 9/13/94 |

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