

OKLAHOMA WATER NEWS

Bimonthly Newsletter of the Oklahoma Water Resources Board

*from
the desk
of the
Director...*

Oklahoma Scrambles to Replace Funds for Clean Water Programs

*Failure of the Congress to renew Clean Water Act
strands major water quality projects high and dry*

Compared to the dollars spent promoting Oklahoma as the nation's hottest spot for fishing, boating, swimming and camping, \$200,000 is a drop in the bucket. Indeed, it is a wonderful bargain if such modest annual investments can ensure Oklahomans and out-of-state tourists clean and scenic waters for recreation.

The EPA recognized the bargain when it set in place the far-reaching Clean Water Act in the 1970's. Section 314 of the Act authorized the Clean Lakes Program and made grants available to states to identify pollution sources of publicly owned lakes and to restore and protect their recreational benefits. However, the

\$200,000 formerly available to the Oklahoma Water Resources Board each year through the program is down the drain, scrubbed by a Congress intent on downsizing EPA and balancing the budget.

Oklahoma benefitted immensely from the Clean Lakes Program. More than a dozen state lakes testify to the success of the program in which the EPA has invested \$2.8 million and the Water Resources Board and local sponsors have contributed in-kind matches of \$1.8 million.

*It's win-win. It's geared
toward helping the public*

"The program grew because it's popular with Oklahomans," said Derek Smithee, OWRB acting Water Quality Programs division chief. "It is the only program that focuses exclusively on lake resources," he pointed out.

The Clean Lakes Program utilizes a phased approach to monitoring lake water quality (the Lake Water Quality Assessment), diagnose problems with specific lakes (Phase I), perform lake restoration (Phase II), and evaluate the success of restoration (Phase III.)

Phase I studies are cost-shared, with EPA traditionally picking up 70 percent of the cost; the state 30 percent. The state's contribution is usually in-kind -- technical expertise and salaries for limnologists who collect and analyze samples of water, sediment and fish. Phase I concludes with a



As most of our customers know, the April 19 bombing heavily damaged the Water Resources Board building and forced us to a temporary location in the State Insurance Building.

Now, after long months, we will occupy a new permanent home. We anticipate our move to 3800 Classen by January 1. This is exciting news for us and a landmark in our recovery.

Board Chairman Ross Kirtley, Assistant Director Duane Smith and I recently met with building owners to finalize an agreement for the OWRB's new home. The building meets our

Continued on page 2



The Water Resources Board will occupy the concourse level and first floor of this building at 3800 Classen, with an expected move-in date of January 1, 1996.

Continued on page 2

Director, continued from page 1

criteria for comfortable and secure work space; accessibility to major streets and highways; proximity to the Capitol; proximity to food and services; and safe, convenient parking for employees and visitors.

Some interior alterations now underway will provide more usable office space, more storage, a larger Board meeting room and more amenities than our downtown location. We searched for the best office space we could possibly find for our people because they deserve it.

Over these past months, the dedicated Water Board staff has accomplished miracles under very difficult circumstances in crowded quarters, with borrowed, make-do furniture and equipment, and a mountain of cardboard boxes.

All of us long for a return to "normalcy." I look forward to the time when all of us at the Water Resources Board can proudly welcome our friends and customers to our new offices at 3800 Classen. □

Clean Lakes, continued from page 1

report setting out precise recommendations and estimates of costs for cleanup.

Phase I studies/reports have been completed recently on Meadow Lake (Enid), Perry Lake and Newkirk Lake. Studies are in progress at Lakes Tenkiller, Wister, Carmen, Henryetta, Hunter Park (Hobart) and Lake Arcadia (Edmond.) Since



Jane Sund, OU student and OWRB seasonal employee, collects bottom water sample at Broken Bow Lake.

the Clean Lakes Program began, the OWRB has completed studies on 10 additional lakes.

Phase II focuses on restoration and protection, and requires the city or other entity to match 50/50 with the EPA. In Phase II restorations, the OWRB provides technical support and the city's share is often in-kind.

The Clean Lakes Program is a boon for municipalities because it offers less expensive cleanup alternatives. One of the most successful and visible Clean Lakes projects is Northeast (Zoo) Lake at the Oklahoma City Zoo. The successful cleanup was accomplished with the cooperation of the OWRB, Oklahoma City Zoo, Oklahoma City, Oklahoma County and the EPA.

And although many publicly owned lakes in the OWRB program are small, the state's large lakes are not exempt from problems. Indeed, age, geography and development in the watershed impact larger lakes as well. Phase I studies at Grand and Tenkiller Lakes detected pollution and turbidity problems with the potential to impact tourism and recreational uses.

If clean and inviting lakes were not reward enough, the state gains two other remarkable benefits through the Clean Lakes Program -- the Statewide Lakes Water Quality Assessment and Oklahoma Water Watch, a citizens volunteer monitoring program.

Through the Statewide Lakes Water Quality Assessment, OWRB staff assess water quality and establish baseline water quality for all significant publicly owned lakes, then revisit and reevaluate trophic status every five years.

Oklahoma Water Watch is also assisted by EPA funding. Since 1992, Oklahoma Water Watch has trained 600 volunteer monitors at 33 lake and river sites throughout the state.

Smithee warned that the move on Capitol Hill to downsize environmental programs casts a deep shadow over the Clean Lakes Program. "Oklahoma has been fortunate in that the EPA has made significant investments and the Oklahoma Legislature has been generous in providing matching funds," Smithee said. "Now, in addition to approximately \$100,000 the Legislature has appropriated as matching funds, we will have to ask for the \$200,000 formerly provided by the EPA," he pointed out.

Smithee emphasized it's important for the state to get involved... lakes are state resources. □

**Sanford Takes Tulsa Command**

Col. Timothy L. Sanford assumed command of the Tulsa District, U.S. Army Corps of Engineers, on July 18, during change of command ceremonies at the Corps' Tulsa Office.

He replaces Col. Otis Williams who became executive director of the Directorate of Military Programs at Corps headquarters in Washington, D.C.

Sanford will oversee water resource development in southern Kansas, Oklahoma and Northern Texas, as well as military construction and environmental restoration in the region.

He is a 1972 engineering graduate of the U.S. Military Academy at West Point and holds a master's degree in civil engineering from the University of Illinois. He is a graduate of the Army's Command and General Staff College, the Army War College, and is a registered professional engineer in the State of Illinois.

Sanford has commanded a combat company and combat battalion, served as Branch Chief of the Corps' Japan District and has taught at the USMA and the Defense Mapping School at Fort Belvoir, VA. He is a member of the Society of American Military Engineers, Association of the U.S. Army and the Army Engineer Association.

Don Ellison Died July 23

Charles Donald (Don) Ellison, Jr., community planner for Region VI of the Federal Emergency Management Agency, died at his home in Denton, July 23, 1995. He was 59 years old.

Ellison held a bachelor's degree in education and a master's degree in regional and city planning from the University of Oklahoma. He joined FEMA Region VI October 1978 and served in the Natural Hazards Branch of the agency. The Water Resources Board enjoyed a long association with Ellison as a representative to the state in the National Flood Insurance Program administered in Oklahoma by the OWRB Planning Division.

Ellison is survived by his wife, Wanda, of Denton; daughters Jeannette Cook

of Pennsylvania and Ann Ellison of Ohio; and a stepson, Harold Doss of Denton.

Memorials may be made to the Denton Flame Fellowship, 1412 Kendolph St., Denton, TX 76205.

Waterways Meeting Sept. 27-29

The 35th Annual Meeting of the National Waterways Conference will be held at the Adams Mark Hotel in Tulsa on September 27-29, 1995.

The theme of the meeting will be "Redefining Waterways Role: Reinventing Missions or Reneging on Commitments?" According to planners, the agenda will examine cost-cutting alternatives such as closing tributaries, stopping new projects, recovering operation and maintenance (O&M) costs, abandoning flood control and other other means to contain navigation costs.

For more information, call Carol King, conference coordinator at (918) 838-9933.

Water Conference Nov. 15

Circle your calendar for November 15 and plan to attend the Sixteenth Annual Governor's Water Conference at the Marriott Hotel, 3233 Northwest Expressway in Oklahoma City. The theme will be "The Shifting Federal Role -- Oklahoma's Opportunity to Redefine Water Policies," reflecting the downsized dollars and diminishing role of the federal government in state water and environmental programs.

Registration begins at 8 a.m., and the program will conclude at 3 p.m., following the luncheon and presentation of Oklahoma Water Pioneer Awards. Registration is \$30. For information, call conference coordinator Mary Whitlow at (405) 525-4700.

Nonpoint Source Conference

The first Regional Nonpoint Source Conference will be held October 15-17 at the Tulsa Marriott Hotel, 41st and Garnett.

The conference is sponsored by the EPA Region VI, Office of the Secre-

tary of Environment and others and hosted by Blue Thumb, Tulsa's Urban Water Quality Improvement Project. Registration is limited to 250 and costs \$100. Workshops on October 16 cost \$35. The deadline for registration is October 6. For information or brochure, call Sylvia Ritzky at (405) 525-4720.

Laura Oak, husband Mark and 5-day old daughter Carly Ann visited the OWRB offices on August 8. Laura, six months pregnant at the time of the bombing, suffered serious injuries and premature labor. Carly was born full-term on August 3 and is regarded as the Water Board's "miracle baby."



Board Member's Grandson Reflects on Bombing

TO OUR HORROR

To our horror --

The flash, the sound, the screams.

In our dreams --

The hurt, the dead, the heroes now -- Angels, Angels.

They walk through our nightmares.

Our own brothers -- killed our children who were

So unaware...So impartial to the motives of hate.

Yet, with that one push of a button,

With that one twist of a dial, with one light of a fuse,

Our children's innocence and youth have been denied.

So now we ask what shall we do? What with the lost and buried in the building's black abyss? What with the building torn and bruised? What with the tears of the family and friends and fellow countrymen?

On our own, we are helpless.

On our own, we are gone.

On our own, we'll be left in ruin.

But with Love we conquer all.

April 19, 1995

T.J. McCloud

T.J. McCloud was so touched by the tragedy of April 19 that he wrote a poem expressing his grief. His grandmother, Board member Mike Henson, said that wasn't unusual for 15 year-old T.J. because he's been writing almost all of his life. She says after the bombing, T.J. just sat down and jotted off the poem entitled "To Our Horror."

Henson recalls that T.J. made his own comic book when he was seven years old, drawing all the panels and writing all the text in cartoon-style balloons. His unique talents and creativity were recognized last year by Jenks East Junior High, winning him awards as Outstanding Drama Student and Outstanding Vocal Music Student.

T.J. lives in Tulsa with his parents, Tom and Raye Lynn McCloud, and a seven year-old sister named Mickey, after her grandmother. T.J. is an active member of Park Plaza Church of Christ, where he participated in a summer church camp volunteer program to paint and repair homes of low income families. □



T.J. McCloud

THE FLOOD CURRENT

JULY-AUGUST 1995

29 Counties Slated for Disaster Aid

On June 26, President Clinton approved federal disaster aid for 10 Oklahoma counties which were hit hardest by severe storms and flooding in late May and much of June. One week later, after further assessment of the damage, 19 counties were added to the federal disaster declaration list.

James Lee Witt, director of the Federal Emergency Management Agency, said the President's major disaster declaration makes federal funds available to supplement the recovery needs of affected local governments in the counties of Alfalfa, Atoka, Beckham, Caddo, Canadian, Carter, Cotton, Creek, Custer, Ellis, Grady, Grant, Harmon, Jackson, Kingfisher, Kiowa, Lincoln, Logan, Major, Murray, Nowata, Osage, Ottawa, Pottawatomie, Roger Mills, Seminole, Tillman, Washita and Woodward. The total damage estimate for the state now stands at \$10

million.

Under the declaration, the federal government will pay 75 percent of the approved costs for restoring public roads, bridges, utilities and related facilities damaged by the storms. In addition, funding will be provided to pay part of the eligible costs for clearing of debris from public areas and emergency measures that were taken to protect public health and safety.

According to Ken Morris, state NFIP coordinator, the Town of Davidson in southwest Oklahoma was among the hardest hit by the late spring storms. "Separate gages in the area measured rainfall at six inches in one hour and 14 inches in a 12-hour period. Homes in the southeast part of town were flooded with over three feet of water," he said.

Counties included in the presidential disaster declaration are eligible for

federal assistance under the FEMA Hazard Mitigation Grant Program (HMGP), created to reduce a community's vulnerability to flooding and related natural disasters. Specific projects funded through the program -- including floodproofing, acquisition/relocation and development of disaster preparedness plans -- decrease the potential for future damages as well as the need for state and federal financial assistance.

Morris is working with officials from FEMA and the Oklahoma Department of Civil Emergency Management in evaluating projects in the disaster areas that could be eligible for HMGP grants.

"Our primary objective is to prevent or decrease the likelihood of flood-related disasters -- especially loss of life," Morris said. The HMGP will provide a 75/25 cost-match for both public and private projects, contingent upon membership in the National Flood Insurance Program, he added. □

OFMA Meets September 13-15

The Oklahoma Floodplain Management Association will host its fifth annual meeting at Lake Texoma Lodge September 13-15. Enforcement will be the theme.

Speakers will include representatives of the Federal Emergency Management Agency, Oklahoma Municipal League, Association of State Floodplain Managers, City of Tulsa, Oklahoma Department of Civil Emergency Management and Insurance Services Office. The conference will feature a workshop on the National Flood Insurance Program Community Rating System.

Ken Morris, state NFIP coordinator, urges floodplain managers from all communities with sound programs to attend the CRS session, scheduled for Friday, September 15. "Local govern-

Continued on page 5



The Town of Davidson in Tillman County received 14 inches of rain, flooding homes in the southeast part of town.

MAJOR FLOODS WORLDWIDE WITHIN THE PAST CENTURY

YEAR	LOCATION	CAUSE & CASUALTIES
1883	Java & Sumatra	Tsunami, following the explosion of Krakatoa. 36,000 dead.
1887	Henan, China	The Hwang He River, swollen by rain, floods 50,000 square miles. 900,000 dead.
1889	Johnstown, Penn.	Dam failure. 2,200 dead.
1900	Galveston, Texas	Hurricane/flooding. 6,000 dead.
1916	The Netherlands	North Sea storms flood lowlands. 10,000 dead.
1928	Florida	Hurricane causes Lake Okeechobee to flood. 2,400 dead.
1938	northern China	Chinese forces blow up dikes on the Hwang He to impede Japanese advance. Estimate: 1 million dead.
1960	Chile, Hawaii & Japan	Giant tsunami, following a major Chilean earthquake, inundates coastal areas.
1963	northern Italy	Landslide into Vaiont Dam/Reservoir sends huge wave into valley below. 2,000 dead.
1970	eastern Pakistan	Cyclone-generated floods inundate coastal regions. Estimate: 200,000 dead.
1971	Orissa State, India	Cyclone and sea surge hit coast. 10,000 dead.
1979	Morvi, India	Heavy monsoon rains cause collapse of river dam. 7,000 to 10,000 dead.
1982	Peru	Torrential rains cause lake to overflow into Chantayacu River valley. 2,500 dead.
1985	northeastern Brazil	Rain-caused floods. 1 million homeless
1988	Bangladesh	Monsoon flooding inundates most of country. 28 million homeless.
1988	Sudan	Torrential rains flood the Nile. 1.5 million homeless. Number of dead unknown.
1991	Bangladesh	Cyclone hits delta area with 145 mph winds, floods and 16-20 foot water surges. 125,000 believed dead.
1993	midwestern U.S.	Record spring and summer rains cause prolonged flooding along Mississippi River and its tributaries. 50 dead; 70,000 homeless.

Meeting, continued from page 4

ments who qualify for the CRS can expect to secure a substantial reduction in flood insurance premiums for their residents," he pointed out. □

Floodplain Information is Free

Community officials or other citizens in search of information on floodplain management can obtain a wide variety of national publications on that subject by contacting the Floodplain Management Resource Center in Boulder, Colorado. After identifying your needs, staff will search the computerized bibliographic data base for the appropriate publications.

The Center can be contacted by calling 303/492-6818. The service is free. □

OWRB Offers NFIP Video

To improve community involvement in the National Flood Insurance Program, the OWRB offers a video for use by community officials.

The 9-minute video details responsibilities of the NFIP, what constitutes development in the floodplain, and the differences between the floodway and floodplain. The video is available for loan or presentation to interested communities. For more information, call (405) 525-4740.

"100-Year Flood"... It's a Probability

The following article is reprinted, in part, from the North Dakota Water newsletter, "The Water Primer."

When flooding or flood control are discussed, the terms 100-year, 500-year, or even 10- or 25-year flood, are often used to describe the size of a flood event. Unfortunately, these terms often mislead people to believe that once an area has experienced a 100-year flood, for example, there won't be another as big for the next century. But that's not exactly correct. The term "100-year flood" is actually a way of stating the odds.

According to rules and regulations of the Oklahoma Water Resources Board, the 100-year flood, or "base flood," is defined as "the flood having a one percent chance of being equaled or exceeded in any given year." While this definition does not hint at its severity, the 100-year flood is often associated with considerable damage to property and, sometimes, loss of life.

If you flip a coin, there is a 50 percent chance it will come up heads. Or, if you have two straws, one of which is shorter, there is a 50 percent chance of drawing the short straw. Another way to say this is the odds are one in two. A two-year flood has the same chance of occurring -- 50 percent, or one year in two. If you had 10

straws, one of them short, the chances of drawing the short straw are one in 10, or 10 percent; in flooding terminology, this is the same as a 10-year event.

A 100-year flood has a one in 100 chance of occurring, or a one percent chance in any given year. This is the same chance as drawing the one short straw out of 100 straws. To most accurately demonstrate the chances of a 100-year flood, imagine 100 bundles of straws, each containing 100 straws. In each bundle, there is one short straw. The chance of drawing the short straw out of one bundle is one in 100. However, if one straw is drawn from each of the 100 bundles, the odds are good that one short straw will be "selected."

Because of luck, good or bad, it may be that no short straws are drawn or a fairly large number of short straws may be drawn. You might draw one on the first pull and one on the last, or five, even ten, in a row. Floods work much the same way. One hundred years may pass without a 100-year flood (no short straws) or you could have five or ten 100-year floods in a row. Now that you (hopefully) understand what the 100-year flood is and when it could occur, you should also know the value of this advice: plan carefully and BE PREPARED! □

At the August 8 Board Meeting:

Board approved two regular streamwater permits. New D/PC operators licenses were approved for Jay Cox, Brad Bryne and Richard Weber. Crouch Drilling, a licensed firm, added Tom Bickell and Clark Johnson as operators. ☐

The Board met in the auditorium of the Oklahoma Department of Wildlife Conservation. In opening remarks, Executive Director Gary Sherrer introduced a Resolution delegating authority to the Chairman and Vice Chairman to approve selection of a site and lease, as a means of expediting relocation of the OWRB to permanent quarters.

Joe Freeman, Financial Assistance Division chief, asked and received approval for emergency water/sewer improvement grants of \$35,000 to Stroud UA, (Lincoln Co.), \$25,000 to Canute PWA (Washita County), and \$100,000 to Haileyville PWA (Pittsburg Co.) He asked for approval of a loan of \$330,000 to Haileyville PWA, and an increase of \$125,000 in the previous loan to Tonkawa MA (Kay Co.) In preparation for the upcoming bond sale, Freeman asked the Board to approve Boatmen's Bank as the trustee bank and to approve a resolution authorizing issuance of Oklahoma Water Resources Board State Loan Program Bonds in the amount of \$50 million.

In the Planning portion of the agenda, the Board approved a resolution asking the U.S. Army Corps of Engineers to examine flooding problems in the Arkansas and Grand Neosho River Basins. It asked the reactivation of the Arkansas River Basin Coordinating Committee to review the performance of the basin's operating plan and suggest any needed changes in maximizing project benefits. Planning Chief Mike Mathis asked approval of a \$15,000 loan for RWD #6 (Pittsburg Co.) under the Statewide Rural Energy and Water Conservation Program.

On the Water Management agenda, the Board amended one temporary permit and approved six temporary permits and five regular permits for the use of groundwater. The

FINANCIAL ASSISTANCE PROGRAM UPDATE

Approved at July and August 1995 Board Meetings

FINANCIAL ASSISTANCE PROGRAM UPDATE			
Approved at July and August 1995 Board Meetings			
FAP Loans			
(5.172%, 28.5 year maximum term)			
Rush Springs MIA		\$	165,000.00
Alex MA		\$	350,000.00
FAP Grants			
Stroud UA		\$	35,000.00
Canute PWA		\$	25,000.00
Okfuskee RWD #1		\$	33,623.00
Haileyville PWA		\$	100,000.00
Town of Hollister		\$	32,500.00
Alex MA		\$	70,000.00
SRF Loans			
Haileyville PWA		\$	330,000.00
Increase Tonkawa MA by		\$	125,000.00
TOTALS AS OF 8/9/95			
	FAP Loans	FAP Grants	SRF Loans
APPROVED	158	368	29
Amount	\$190,615,000.00	\$20,415,509.00	\$125,229,726.48
FUNDED	148	336	23
Amount	\$178,625,000.00	\$18,347,889.25	\$117,285,726.48

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