JUNE 1991

Oklahoma Water News

MONTHLY NEWSLETTER OF THE OKLAHOMA WATER RESOURCES BOARD

New Federal Stormwater Rules Target Nation's Cities, Industries

For the better part of the 20th Century, unchecked sewage and industrial wastes choked rivers, streams and lakes and harmful air pollutants fouled the nation's air. Public outcry during the grassroots environmental movement of the 1970's spawned many new laws to protect the nation's water, land, air and wildlife—including creation of the Environmental Protection Agency in 1971 and subsequent passage of the federal Clean Water and Air Acts. Perhaps no environmental problem was tackled with such vigor as Congress' attempt to eliminate, or at least minimize, the discharge of pollutants into the nation's waters.

To accomplish this lofty goal, the Clean Water Act set forth a national program to permit, and thus limit, the wastewater discharges of municipalities and industries. Discharge permit programs set limits on the amount and concentration of these point source pollutants. For the first time since the industrial revolution, the U.S. has come to terms with this huge contributor to water pollution.

What early environmental laws failed to do was decrease pollution from no discernable source, or non-point pollutants. Runoff, street wash and snow melt can pick up a multitude of contaminants before entering storm sewers and water bodies. This type of pollution is now one of the largest impactors on water quality.

To deal with this problem, EPA recently announced new regulations—required by 1987 Clean Water Act amendments—to govern the discharge of stormwaters to and from large municipal storm sewer systems. The rules require medium to large municipalities servicing populations greater than 100,000 to obtain permits for their municipal storm sewer systems. Stormwater discharges associated with industrial activities must

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Brooks Kirlin discusses new federal stormwater regulations with Margaret Graham, of the OWRB's Permitting Section.

Standards Revision Underway June 5

The 1991 triennial revision of Oklahoma's Water Quality Standards officially begins Wednesday, June 5 with an informal public meeting at OWRB offices in Oklahoma City.

The 1:30 p.m. meeting will be the first of several to solicit public input about the revision process and offer technical information on proposed changes to the standards. Oklahoma Water Quality Standards are developed and promulgated by the OWRB.

Preliminary topics to be explored during the eight-month revision process include protection of human health against toxic pollutants, refinement of groundwater standards, biological communities as indicators of water quality, endangered species protection and the addition of numerous stream segments to the standards. State agencies, the public, industry and many civic and special interest organizations will also be invited to suggest other topics which they believe warrant attention.

According to Dave Dillon, OWRB Water Quality Division chief, extensive public participation is crucial to standards development.

"Direct, two-way communication allows us to focus our intentions on topics of primary concern to the public," he said. During the 1988 revi-

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also be permitted. The Clean Water Act mandate will require that stormwaters be sufficiently treated to remove pollutants prior to release into municipal storm sewers or water bodies. Normally, storm sewers operate separately from sewers which carry domestic and commercial waste.

According to Brooks Kirlin, of the OWRB's Permitting Section, while most major Oklahoma industries already have federal permits which address stormwater discharges, the effects of the new requirements will still be far-reaching.

"Many existing federal permits will have to be modified, while permits will be required of many others who are not currently regulated," he said. "EPA guidelines require these permits of industries whose process, materials or equipment come in contact with stormwaters." EPA estimates that 100,000 U.S. industrial facilities will be affected by the new rules.

Cities, counties and industries must obtain industrial stormwater discharge permits for runoff from sewage treatment plants, landfills, vehicle maintenance facilities, airports, construction sites, salvage yards, power generating plants, industrial plant yards, material and product storage and handling areas, and other facilities. Oklahoma City, Tulsa and other large cities in metropolitan areas will also have to adapt to upcoming permit changes to remain in compliance with federal water pollution laws.

Unpermitted facilities affected by the stormwater rules or those whose permits don't currently address stormwater discharges must submit information about how they deal with such discharges by November 18, Kirlin said. He added that many operations, such as most power plants, mining operations and oil and gas facilities, already have stormwater management plans as part of their waste discharge permits and can wait until their five-year permit renewal date.

Currently, only federal National Pollutant Discharge Elimination System (NPDES) permits will assimilate the new rules. Ultimately, the OWRB plans to formally adopt stormwater regulations and include them in state waste discharge permits.

For questions about compliance with federal stormwater management guidelines or to find out if your community or facility will be affected, call EPA's regional office in Dallas at (214) 655-7175 or Brooks Kirlin at (405) 231-2541.

Standards, continued from page 1

sion, OWRB staff responded to written and oral comments from more than 300 citizens and groups.

The 1991 revision will include distribution of a short questionnaire to gather comments or concerns about the standards process. Formal rulemaking hearings will also be held before revision's end in December, Dillon pointed out.

When the 1988 Oklahoma Water Quality Standards were approved by the Environmental Protection Agency, Oklahoma was recognized as one of only 13 states to avoid national promulgation of standards regarding toxic pollutants. EPA often enforces its own standards when states fail to comply with requirements of the federal Clean Water Act, Dillon said.

"The 1988 revision was probably our most effective and successful. Oklahoma developed proper numerical and narrative criteria for toxics, so we were able to safeguard our authority in state pollution control."

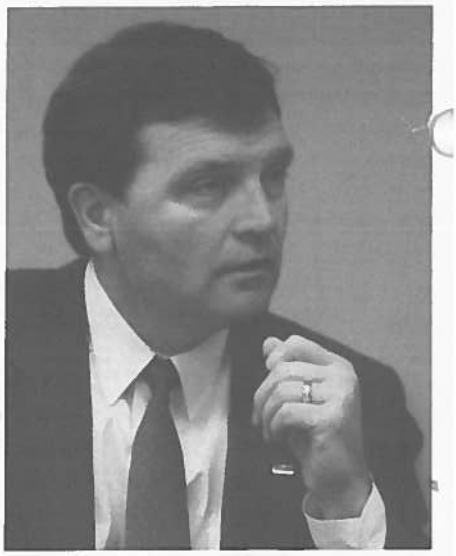
Those who wish to be placed on the mailing list to receive standards updates and related information should call the OWRB at (405) 231-2541.

mainstream

Fergeson Attends First Meet

In May, the OWRB's new offices at 600 North Harvey served as the site for the eleventh meeting of the Red River Compact Commission. The 1991 meeting was the first for new Oklahoma commissioner, Ken Fergeson, as well as OWRB Executive Director Patty Eaton.

Fergeson, appointed to the commission last year by Gov. Bellmon, is



Ken Fergeson

the chairman of Altus' National Bank of Commerce. A graduate of Texas Tech and Rutgers Universities, Fergeson is active in several civic and professional organizations, including the American Heart Association, Oklahoma Arts Institute, American Bankers Association, Growth Oklahoma, Oklahoma Academy for State Goals and Assembly of Community Arts Councils of Oklahoma.

Representatives of Red River Compact member states Arkansas, Texas, Louisiana and Oklahoma meet each year to discuss water related activities in each state and issues of common concern in the Red River Basin.

At the 1991 meeting, resolutions of appreciation were awarded to former OWRB director and compact commissioner James R. Barnett and the late L. L. "Red" Males, also a former commissioner and Water Board member.

Magazine Honors "Atlas"

"Library Journal," a prestigious publication of the R. R. Bowker Company of New York, announced that the "Oklahoma Water Atlas," a 1990 publication of the OWRB, has been named one of the nation's 35 best government publications.

Each year, "Library Journal" lists publications it considers outstanding in two categories of government—"federal" and "nonfederal." The list was printed in the May 15 issue of the journal.

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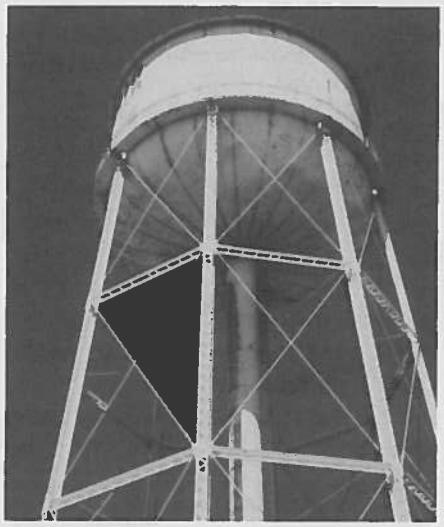
JUNE 1991

FAP NEWS

AN UPDATE ON THE OWRB FINANCIAL ASSISTANCE PROGRAM



Ringling upgraded its water storage tower and improved its sewage collection system with a $70,000 OWRB grant.

Board Seeks Best Financing For FAP Water, Sewer Projects

It has required nearly a decade of progressive legislation, two major bond sales and a wary eye on the nation's financial market to create the program Oklahoma cities, towns and rural water districts have come to rely on for critical water and sewer projects. Throughout the history of the OWRB's Financial Assistance Program, the Board has been forced to deal with fluctuating interest rates, an uncertain economy, legal challenges and other obstacles in searching for ways to bring affordable water and sewer project financing to those in need of help.

"Ironically, the same economic conditions which initially made the program attractive to financially strapped communities also hampered the FAP's effectiveness in its early years," according to Walid Maher, OWRB Planning and Development Division chief. "We weren't able to look into a crystal ball and foresee plummeting interest rates or the depressed economy Oklahoma suffered through in the 1980's. Fortunately, persistence has paid off and the program is as competitive as ever."

In 1982, the State Legislature enacted a series of laws which established the Water Board's authority to issue investment certificates, or bonds, as a means of acquiring money to make loans to local governments for a wide variety of water and sewer projects. Twenty-five million dollars was appropriated from surplus funds to create the Statewide Water Development Revolving Fund which serves as additional security and collateral for the bonds. Loan monies are generated through bond sale proceeds, while emergency grant funds accumulate from interest earned on the account.

"The program was specifically designed so that rural communities could avoid having to issue bonds on their own and be able to secure long-term financing which is exempt from federal and state taxes. Many of these communities can't get the rating necessary to market bonds," Maher pointed out.

In 1985, the OWRB created the FAP's first successful revenue bond sale, allowing the Water Board to offer loans to eligible entities at a relatively low interest rate. Almost immediately following delivery of the bonds, rates began to climb. "Our timing appeared to be excellent," Maher said.

But, just four months after the bonds were sold, market rates dropped well below the FAP rate. Several efforts to refinance the existing bonds proved unsuccessful due to

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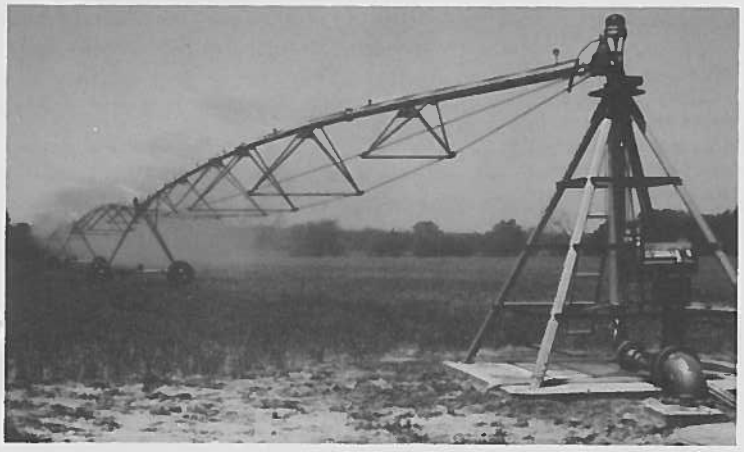
This center-pivot irrigator, a component of Waurika's land application sewage disposal system, was funded through a $1,700,000 OWRB loan to the Waurika Public Works Authority.



HISTORY OF FAP VARIABLE INTEREST RATES

ISSUE	PERIOD	DATE	RATE %
1986-A	1	9/1/86–3/1/87	5.525
	2	3/1/87–9/1/87	4.676
	3	9/1/87–3/1/88	5.476
	4	3/1/88–9/1/88	5.522
	5	9/1/88–3/1/89	6.726
	6	3/1/89–9/1/89	7.776
	7	9/1/89–3/1/90	6.926
	8	3/1/90–9/1/90	6.476
	9	9/1/90–3/1/91	6.776
	10	3/1/90–9/1/91	5.076
	AVERAGE		~~6.896~~ 5.691
1989	1	9/1/89–3/1/90	6.742
	2	3/1/90–9/1/90	6.292
	3	9/1/90–3/1/91	5.592
	4	3/1/91–9/1/91	4.892
	AVERAGE		~~6.130~~ 5.285
	PROGRAM AVERAGE		~~6.059%~~ 5.641

Financing, continued from page 3

a rapidly fluctuating financial market.

Persistence finally paid off in August 1986 when the Board successfully completed the sale of $41.65 million in variable rate revenue bonds. This allowed the OWRB to offer loans at 5.525 percent interest for the initial six months, with subsequent rates dictated by market conditions. Heightened interest soon created a backlog of loan applications.

"The variable rate issue has been a real winner," Maher said. "It has given the loan program much more flexibility." The variable rate on the 1986 issue is currently 5.076 percent.

It was at this time that the grant program stepped in to affirm its worth to communities with ailing water and sewer systems. A primary advantage of the grant program is that it often couples with OWRB loans and funding from other sources, thereby generating additional monies for water and wastewater facility construction.

Soon, market conditions improved and the OWRB, anxious to meet the increasing demand for low interest loan funds, delivered the $50 million 1989 State Loan Program Variable Rate Revenue Bond Issue. The issue is similar in structure to the 1986A issue but provides some added incentives.

"The 1989 issue provides for a fixed rate of conversion at the option of the borrower and loans of terms up to 30 years. Also, a greater portion of loan funds will be available to the smaller, non-ratable entities."

Even as the FAP was providing hundreds of loans and grants for millions in infrastructure improvements, the federal government made a sweeping decision—through amendments to the Clean Water Act—to phase out U.S. Environmental Protection Agency grants for construction of state sewage treatment projects. Utilizing almost $3.4 million in Revolving Fund seed money and two EPA capitalization grants totaling almost $16.9 million, the Oklahoma Legislature established the Wastewater Facility Construction Revolving Loan Program (SRF), a sister program of the FAP. One goal is to provide assistance to communities, regardless of size, who are under consent orders to repair, construct or upgrade facilities to comply with state or federal water quality regulations. Maher credits the new program, created in 1989, for lifting the Water Board's financial assistance status to new heights.

"After 1994, states essentially will be on their own in providing such assistance to their local governments. The SRF will ensure that wastewater construction financing in Oklahoma will continue without interruption," Maher remarked. The loan account is coadministered by the OWRB and State Department of Health.

In August 1990, the SRF's first loan of $11.1 million was awarded to the City of Tulsa for a project to alleviate the discharge of untreated sewage into the Arkansas River.

Program Funds Variety of Projects

Loans and grants awarded to communities through the OWRB's Financial Assistance Program are responsible for a wide variety of water and wastewater projects in Oklahoma. The Statewide Water Development Revolving Fund, which serves as the backbone of the FAP, is used for the construction, operation and maintenance of multipurpose reservoirs and desalination facilities, as well as bank stabilization, flood control, weather modification, hydropower, water supply, irrigation and recreation.

One FAP project, funded by a $70,000 Board grant, helped the Town of Ringling construct sewage collection lines and an adjacent sewage lift station. The old lines and lift station allowed sewage to back up in sewer mains and overflow to yards, streets and homes. A separate FAP loan of $525,000 allowed the community to upgrade its water storage tank as well as refinance a Farmers Home Administration loan.

A $50,000 FAP grant helped the City of Blackwell upgrade its water intake structure on the Chikaskia River. Blackwell receives its supply from the river via a low-water dam and adjacent intake. However, the water supply system was severely damaged in 1986 when high flows battered the concrete bank which protected the downstream intake area. Subsequent erosion of the embankment threatened to clog and damage the intake structure and pump. The city worked with the U.S. Army Corps of Engineers to develop a plan, partially funded by an OWRB grant of $50,000, to protect the supply. As a result, extensive rip-rap was used to replace the damaged embankment.

Another FAP "success story" involves the Waurika Public Works Authority, whose water and sewer systems were in disrepair. A $1,700,000 loan helped the Authority fund construction of an auxiliary water system and new sewage treatment system. Local officials were also able to make improvements in their sewage collection system, including addition of a land application system of sewage disposal. FAP loan monies will soon be used to refurbish the community's water treatment plant.

Blackwell used a $50,000 grant to construct this rip-rap to prevent erosion on banks of the Chikaskia River and thus protect its water supply intake.

"Atlas," continued from page 2

Copies of the book are still available at $8.50 purchased at OWRB offices or $10.50 mailed. For information on the "Oklahoma Water Atlas," call the Oklahoma Water Resources Board at (405) 231-2553.

Endangered Rivers Listed

American Rivers, a national organization, has released its list of the nation's 10 most endangered watercourses. Topping the list is the Colorado River, whose habitat is jeopardized by the huge Glenn Canyon Dam, just upstream of the Grand Canyon. Environmentalists say that fluctuating flows and temperature changes caused by the dam's hydropower facility are eroding canyon beaches and vegetation and have already wiped out some fish species.

The other endangered rivers are:

The Alsek and Tatshenshini Rivers, in Alaska and Canada, are threatened by a proposed copper mining operation.

The American and Passaic Rivers, in California and New Jersey, are being considered as locations for flood control projects.

The Penobscot and Susquehanna Rivers, in Maine and Pennsylvania, face proposed hydropower projects that may damage local fisheries.

The location of numerous wildlife refuges, the upper Mississippi River is particularly susceptible to spills of toxic chemicals transported by barge.

The Columbia and Snake Rivers, containing some of the best fish habitat in the U.S., are threatened by proposed dams.

Colorado's Gunnison River is the site of proposed hydropower and water diversion projects.

The New River, in North Carolina, is threatened by land development in its watershed.

Junk Mail Trashes Trees

Many of us look with distaste upon the junk mail which arrives at our homes each day, then quickly finds its way into trash receptacles and the nation's landfills.

If you want to receive fewer solicitations or if you're concerned about the number of trees wasted to create this form of unwanted advertising, you can contact the Mail Preference Service, Direct Marketing Association, P.O. Box 3861, New York, New York 10163-3861. Upon written request, the Service will remove your name from organizational mailing lists.

Editor's Note: If you currently receive the Oklahoma Water News, yet would prefer not to, please let us know by calling (405) 231-2525.

New Format Coming in August

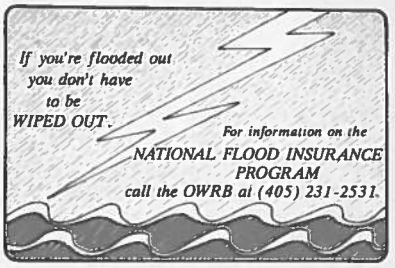
June marks the end of the OWRB's "Oklahoma Water News" as you know it. Beginning in August, the newsletter will debut a new six-page format and assume a bi-monthly publication schedule. Also, in an effort to preserve dwindling landfill space, the "Oklahoma Water News" will now be printed on recycled paper. We hope you like the changes. See you in two months!

Flood Awareness Promoted

The OWRB and Federal Emergency Management Agency (FEMA) announce a new educational program for children, "Big Bird—Get Ready for Floods!"

The kit is designed to teach children and their families about the dangers of flooding through games, stories and songs. The packet—conceived for third graders—contains a card game, safety booklet and cassette tape. Packets have already been mailed by the OWRB to more than 500 schools in and near flood-prone areas of Oklahoma.

The "Big Bird—Get Ready for Floods!" kit costs $2.50 and can be obtained by contacting Ken Morris, of the OWRB's Engineering Division, at (405) 231-2533, or by calling FEMA's regional office in Houston at (713) 690-0115.



FINANCIAL ASSISTANCE PROGRAM UPDATE

Approved at April Board Meeting

Loans

(current rate 4.892%; 28-year max. term)

Nicoma Park Development Authority—$1,150,000

Approved at May Board Meeting

Grants

Delaware County RWD 3—$34,300

Town of Fairfax—$20,000

Loans

(current rate 4.892%; 28-year max. term)

Harrah PWA—$1,150,000

Apache PWA—$590,000

Totals as of 5/6/91

	FAP Loans	FAP Grants	SRF Loans
Approved	77	226	2
Amount	$63,080,000	$13,904,455	$26,659,500
Funded	62	201	1
Amount	$58,920,000	$12,375,549	$11,100,000

On April 23 Chuck Warren and Paul Koenig of the OWRB Water Quality Division conducted 13 students from the Oklahoma School of Science and Mathematics on a tour of Oklahoma City's Zoo Lake, the subject of an OWRB Clean Lakes Project. Yvonne Shay and other students examine a plankton sample seined from the lake by Koenig, in the background.

STORAGE IN SELECTED OKLAHOMA LAKES & RESERVOIRS AS OF MAY 15, 1991

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (acre-feet)	PRESENT STORAGE (acre-feet)	PERCENT OF STORAGE conservation	flood
SOUTHEAST				
Atoka	124,100	123,475	99.5	N/A
Broken Bow	918,070	918,070	100.0	35.7
Hugo[1]	187,603	187,603	100.0	0.1
McGee Creek	113,930	113,930	100.0	0.0
Pine Creek[1]	73,346	73,346	100.0	34.0
Sardis	274,330	273,259	99.6	0.0
CENTRAL				
Arcadia	27,520	27,520	100.0	1.4
Hefner	75,400	53,417	70.8	N/A
Overholser	15,900	15,900	100.0	N/A
Stanley Draper	100,000	81,248	81.3	N/A
Thunderbird	119,600	119,600	100.0	5.5
SOUTH CENTRAL				
Arbuckle	72,400	72,400	100.0	0.3
Texoma	2,643,300	2,643,300	100.0	1.0
Waurika	203,100	202,788	99.9	0.0
SOUTHWEST				
Altus	132,830	97,522	73.4	0.0
Ellsworth	72,490	59,470	82.0	N/A
Fort Cobb	80,010	80,010	100.0	1.1
Foss[2]	256,220	176,585	68.9	0.0
Lawtonka	56,574	47,328	83.7	N/A
Tom Steed	88,970	75,257	84.6	0.0
EAST CENTRAL				
Eufaula	2,314,600	2,314,600	100.0	3.1
Tenkiller	654,100	654,100	100.0	0.5
Wister[1]	58,601	58,601	100.0	1.0
NORTHEAST				
Birch	19,200	19,200	100.0	0.1
Copan	43,400	43,400	100.0	0.1
Eucha	79,600	79,600	100.0	N/A
Fort Gibson	365,200	363,891	99.6	0.0
Grand	1,672,000	1,548,440	92.6	0.0
Heyburn	7,105	7,105	100.0	0.4
Hudson	200,300	200,300	100.0	0.9
Hulah	31,160	31,160	100.0	0.2
Oologah	553,400	553,400	100.0	12.8
Skiatook	322,700	289,640	89.8	0.0
Spavinaw	30,590	30,590	100.0	N/A
NORTH CENTRAL				
Kaw	428,600	426,080	99.4	0.0
Keystone	557,600	557,600	100.0	1.0
NORTHWEST				
Canton	111,310	105,689	95.0	0.0
Fort Supply	13,900	13,900	100.0	0.6
Great Salt Plains	31,420	31,420	100.0	1.7
STATE TOTALS	**13,130,479**	**12,770,744**	**97.3**	**3.3**

[1] Seasonal pool operation
[2] Conservation pool lowered to enhance project 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, City of Lawton, City of Altus, Altus Irrigation District, Foss Reservoir Master Conservancy District and Fort Cobb Master Conservancy District.

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