



The new water storage tank at Boswell is the result of a \$60,000 grant from the OWRB in January 1984.

As the budget axe fells the programs and projects of state government, one noteworthy exception stands tall amid the debris. The success story is there to read in a hundred cities, towns and rural water and sewer districts scattered from Texas County in the Panhandle to McCurtain County in the southeast.

Gleaming water storage tanks, new water wells, miles of water pipe and new and improved water and sewage treatment plants attest to the success of the state financial assistance program administered by the Board. Today, tens of thousands of Oklahomans enjoy clean water and safe sewage disposal as benefits of the program conceived to relieve emergencies in water and wastewater facilities.

Continuing to offer a helping hand to financially troubled communities is the loan and grant program created by the farsighted 37th Oklahoma Legislature in 1979 to supplement failing federal water resources funds. One by one, federal programs underwent painful paring by Congress. Cost-sharing became the buzz word, and "privatization" was coined by feds



Board financial assistance program shines as unique success through state's troubled times

\$7 Million Okayed in Grants \$17.3 Million Pends in Loans

eager to relinquish their role in developing water sources and funding wastewater facilities.

Farmers Home Administration, the Environmental Protection Agency and state and regional agencies that traditionally chipped in on local water and sewer projects withdrew to leave America's smaller cities, towns and rural water and sewer districts in a lurch.

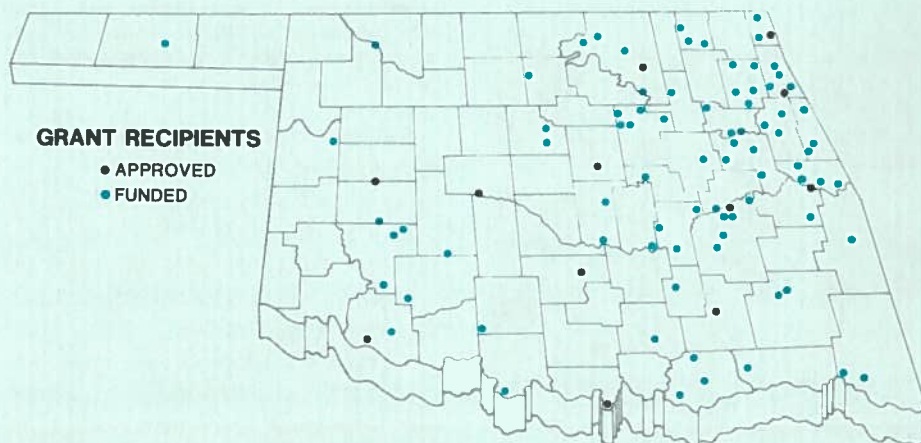
Economic picture was brighter then, so money was set aside to help the communities.

The financial assistance program was created by a series of laws enacted in 1979 and 1980 and funded in 1982

with \$25 million from surpluses. That fund—the Statewide Water Development Revolving Fund—was statutorily created to provide security and collateral for revenue bonds issued and sold by the Board.

Oklahoma voters acclaimed their support for the state water financing program by voting yes on State Question 581 in 1984. The very fact that the financial assistance program was set in place by a series of statutes passed by different legislatures and its legitimacy affirmed by the voters amply demonstrate broad support for the program and would appear to assure its continuity.

Continued on page 2



A viable state program came into its own, stamped with the approval of Oklahoma voters.

From the proceeds of Board bond sales, qualified applicants can borrow funds at reasonable interest rates over a long term to construct or renovate water or wastewater facilities or secure water supplies. A unique feature of the financial assistance program established a grant account from money earned in interest on the \$25 million Revolving Fund. The Board's grant program targets troubled water and wastewater systems and offers them emergency aid up to \$100,000.

By mid-April the list of towns and rural water and sewer districts assisted by the grant program has grown to 93. Another 31 applications totaling \$2.7 million await approval on the priority list. One-hundred fourteen more asking \$10 million are on file with the OWRB.

The loan facet of the financial assistance program, slower in getting up to speed, has attracted 125 applications requesting \$17.3 million. Walid Maher, chief of the OWRB Planning and Development Division that administers the program, said the first loan closing is scheduled in mid-May. According to Maher, Roger Mills County RWD #2 will receive \$165,000 to erect a new water storage tank and extend water lines. "And we are readying documents for the closing of four loans totaling \$4.4 million approved by the Board in April. We expect to



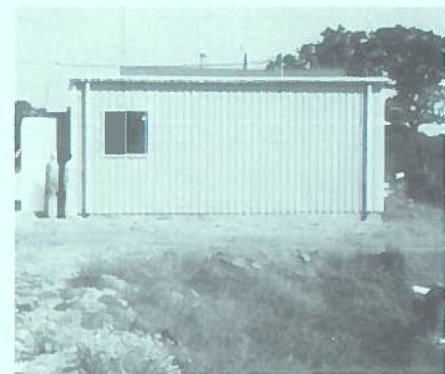
The old, delapidated water treatment plant in Dustin was built in the 30s when most work at the facility was done by hand.

close on several other loans within the next six months."

Although the limit of \$12.5 million on loans and \$100,000 on grants can't buy "big" water projects, such contributions are significant to communities in need. Maher says the program's impact has been enormous. He pointed out that cities and larger towns usually have more financing options than small communities and RWDs to whom the state program often holds out the only hope.

It's critical that this option remains open to our towns. Drought always hovers near."

Mahe recalls the summer drought of 1980 when 344 communities—one-fourth of all the public water systems in Oklahoma—labored under water supply problems. "In an ironic twist, water delivery systems, storage, treatment and pumping facilities—not short supplies—delivered the cruelest blows," he said. "Pumps burned out from operating 24 hours a day to keep up with the demand, and overtaxed delivery systems failed."



Dustin's new water treatment plant, constructed through a \$100,000 grant, is operated by electric controls which run the pumps and add chemicals automatically.

By the stinging-hot peak of the drought in mid-August, the state's water systems had reported \$2 million in physical damages. The water resources board estimated the costs of avoiding a recurrence of such drought tragedies at \$63 million.

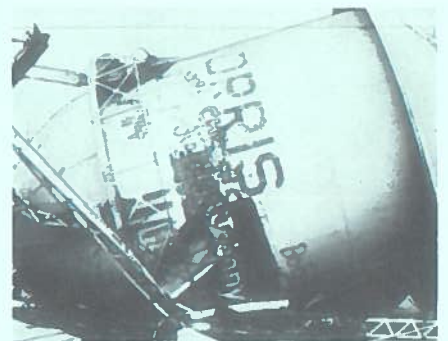
"Drought is dramatic. Its emergencies grab our attention," he pointed out. "However, there are scores of ur-

gent 'everyday' problems yet to solve."

Mahe added that many problems such as expansions of rural water districts, replacement of aging water and wastewater facilities and development of new water supplies still face the communities in our state.

The old saw, "You never miss the water until the well runs dry," still rings true today. To families who have been deprived of necessary services, the improvements purchased with grant money are indeed success stories.

Exceptional among them is the tes-



When a spring tornado at Morris stranded the townspeople without a water supply, a Board grant replaced the fallen water storage tank.

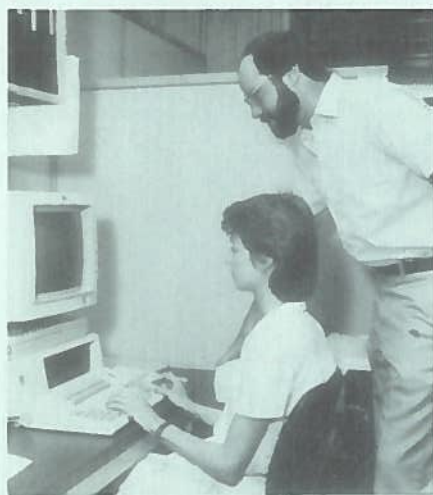
timonial of Morris. In the spring of 1984 a tornado raged through the eastern Oklahoma town, twisting the water storage tank to the ground and severing the townspeople from their water supply. Board staff inspected the damage at the scene the same day, assisted officials in preparing a grant application, and made it possible to replace the fallen structure quickly.

However, not all shine with the drama of Morris. By and large, the success of the financial assistance program is read in such everyday things as PVC pipe, water wells, pumps, sewage lagoons, storage tanks, water treatment plants, spillways, riser pipes and the other components of safe water and wastewater systems.

Quietly, thousands of times over, the success story will continue to be told with every turn of the tap in households where there had been no clean water before.

Computer Staff Guides Permit Activity

Data tapes and floppy discs filed on shelves throughout the Data Processing Section of the Oklahoma Water Resources Board belie the enormous volume of information stored there. Reels of brown tape and accompanying computers hold data critical to Board staff in performing the everyday duties and functions of the agency. And like most contemporary places of business, the Board depends upon



Jim Summers, Data Processing employee, and Jann Hook, section head, fine tune a Board computer program.

these 'mini-libraries' to store, calculate and retrieve information at a moment's notice.

The skilled trio of Data Processing personnel help Board staff to enter, store and interpret data as diverse as the agency itself.

"Our primary function is to develop, or write, programs for other divisions to solve a particular problem or need," according to Section Head Jann Hook. "This enables the staff to enter, process and analyze data by themselves. We try to make the systems we develop as 'user friendly' as possible so that other divisions can work with them without our assistance—except when program modifications are required."

Hook explained that the OWRB computer system is not entirely "in-house."

"We have a control unit which is directly connected on a leased line to the "mainframe" IBM computer at Oklahoma State University. Most

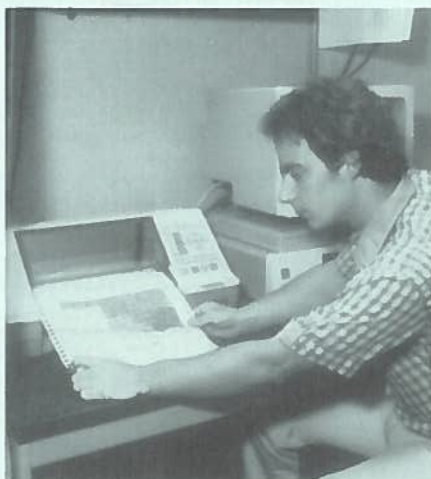
Board divisions have at least one terminal connected through the control unit to OSU," she said.

The Data Processing staff, consisting of Hook, Jim Summers and Neal Shores, maintains and updates Board mailing lists, permit information, and a water use data system derived from required water use reports. Also, Board computers keep on file almost 20 years of historical water use information.

Hook said that a majority of the programs that the section develops involve stream and groundwater permits and, more recently, enforcement of these permits.

"Through a list of 'intent-to-drill' notices obtained from the Corporation Commission, we designed a program that compares, or 'cross-references', intents-to-drill with short-term groundwater permits to insure that oil companies file proper water use applications," she explained.

Hook said that Data Processing is developing a large reference system that will allow the Ground Water Divi-



Neal Shores inspects a map created by the Board's new IBM computer and color graphics plotter.

sion to enter, retrieve and analyze data on state well drillers, water levels, lithologic structures and well construction.

"We are currently working on programs for the Well Log Management System," she said. "This will be done using 35,000 logs from water well drillers and U.S. Geological Survey studies now on file which contain spe-

cifics on well drilling across the state."

Data Processing assists the Stream Water Division with the Water Rights Analysis System. This program evaluates permits to assess water usage of individual permit holders. Water use reports, which state the amount of water used by permit holders each year, are cross-referenced with permit information to determine if permittees are using their allocated water.

The Data Processing Section also programs data on Oklahoma reservoirs. The staff uses this information to observe water levels and advise municipalities on water use so they may avoid water rationing during dry conditions.

"Under the Reservoir Operational Study, we use models to predict the maximum safe yield that can be withdrawn from a reservoir without significantly depleting the water supply," Hook informed.

Data Processing is currently writing a system to maintain applications for private dams. Already the section is able to retrieve data on some 4,200 non-federal dams entered in the computer. The section has developed this system to enable the OWRB's Engineering Division to update and retrieve plans for new dam construction and alterations.

Hook emphasized the role of Data Processing in the Board's Laboratory Certification Program under which labs are tested to determine their ability to analyze contaminants present in industrial wastewaters.

"We enter and update all industrial point-source discharge data on the computer including all information on waste discharge permits," she said.

In the near future, Hook and her staff hope to develop an enforcement program with which to determine waste discharge permit violators. Self-monitoring reports will be cross-referenced with permit data and other information to insure that industries are complying with the terms of their permits.

The Data Processing Section also helps the Planning Division in water use forecasts and related studies. The section will use a Corps of Engineers program to predict residential, com-

Continued on page 4

Computers, continued from page 3

mercial, industrial and public water use for specified geographic areas.

"This new system is much more sophisticated and flexible than the previous model. It can be used even where much of the data may be un-

available," Hook said.

Using historic data, patterns of water use are determined by demographic and socio-economic factors which include population, household units, personal income, employment, manufacturing output, irrigation acreage,

temperature and precipitation. The projection of urban water requirements is the most important capability of the program, she added.

Last October, the OWRB received a new IBM personal computer equipped with a color graphics plotter.

**ACTIVE CONSERVATION STORAGE IN SELECTED OKLAHOMA LAKES AND RESERVOIRS
AS OF APRIL 23, 1986**

PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY	PLANNING REGION LAKE/RESERVOIR	CONSERVATION STORAGE (AF)	PERCENT OF CAPACITY
SOUTHEAST			NORTHEAST		
Atoka	124,074	99.9	Eucha	79,567	100.0
Broken Bow	918,200	100.0	Grand	1,481,680	99.0
Pine Creek	77,700	100.0	Oologah	544,240	100.0
Hugo	157,600	100.0	Hulah	30,594	100.0
CENTRAL			Fort Gibson	365,200	100.0
Thunderbird	105,925	100.0	Heyburn	6,600	100.0
Hefner	64,855	86.0	Birch	19,133	99.7
Overholser	14,939	93.9	Hudson	200,300	100.0
Draper	73,008	73.0	Spavinaw	30,000	100.0
SOUTH CENTRAL			Copan	43,400	100.0
Arbuckle	62,571	100.0	Skiatook	_____	_____ ¹
Texoma	2,637,700	100.0	NORTH CENTRAL		
Waurika	203,100	100.0	Kaw	426,248	99.0
SOUTHWEST			Keystone	616,000	100.0
Altus	39,338	29.6	NORTHWEST		
Fort Cobb	68,581	87.4	Canton	96,230	98.6
Foss	129,831	53.3 ²	Optima	3,000	_____ ¹
Tom Steed	66,762	75.0	Fort Supply	13,738	98.8
EAST CENTRAL			Great Salt Plains	31,400	100.0
Eufaula	2,329,700	100.0	STATE TOTALS		
Tenkiller	627,500	100.0		12,018,314.00	95.2³
Wister	27,100	100.0			
Sardis	302,500	100.0			

1. In initial filling stage
2. Temporarily lowered for maintenance
3. Conservation storage for Lake Optima not included in state total

Data courtesy of U.S. Army Corps of Engineers, Bureau of Reclamation, Oklahoma City Water Resources Department, and City of Tulsa Water Superintendent's Office.

This monthly newsletter, printed by the Central Printing Division of the Office of Public Affairs, Oklahoma City, Oklahoma, is published by the Oklahoma Water Resources Board as authorized by James R. Barnett, executive director. Ten thousand copies are printed and distributed monthly at an approximate cost of 20 cents each.

MARY E. WHITLOW, Editor

BRIAN VANCE, Writer

BARRY FOGERTY, Photographer

MARIE WELTZHEIMER, Design

OKLAHOMA WATER NEWS
 Monthly Newsletter of the
 Oklahoma Water Resources Board
 1000 N.E. Tenth, P.O. Box 53585
 Oklahoma City, Okla. 73152

- Gerald E. Borelli, Chairman**
- Earl Walker**
- Ervin Mitchell**
- Bill Secrest**
- Ralph G. McPherson**
- Gary W. Smith**
- Ernest R. Tucker**
- Robert S. Kerr, Jr.**
- R. G. Johnson**

BULK RATE
 U.S. POSTAGE
PAID
 Oklahoma City, Okla.
 Permit No. 310