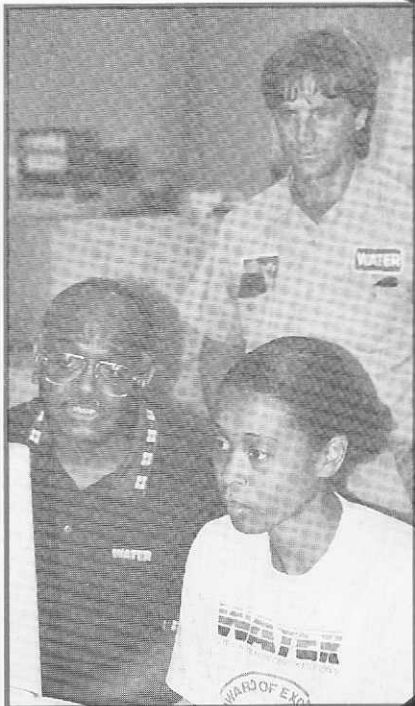




**GREAT SUGGESTION!**—Rodger Terrell (right), Cross-connection Control Program Administrator, is congratulated by Water Commissioner Ralph L. White for Terrell's earning a \$100 monetary award and certificate for a suggestion on updating customer telephone numbers. See Page 10.

**PAGIS INSTRUCTION**—Jos Bell (seated left), Engineering Assistant, teaches Deborah Rice, Distribution Dispatcher, and Lee Pengelly, Distribution Inspector, about the use of the geographic information system application, ArcView. The software allows employees to view information in our Pulaski Area Geographic Information System. See Page 9 for related article.



## ❧ In Memorial ❧

Whether you knew **Betty Lois McDonald** as Mother Betty, the eternally reigning Ms. Little Rock Municipal Water Works, the Recycling Police, the Customer Service Representative-Office (CSR-Office) who had one sure way to resolve *every* customer concern, the CSR-Office who once courteously handled a robber, or simply "Betty Mc," she added a dash of spice to your life. It is that same zest for life and its enjoyment that endeared her to us during her presence and that remains with us in her absence.



**Retiree Betty Lois McDonald**

McDonald, 64, a retired CSR-Office, passed away January 20, 1997. She served Little Rock Municipal Water Works and its customers for almost 37 years. She retired in August 1994.

Upon retirement, McDonald was the fifth most senior employee in terms of longevity. (Of course, she would want it doubly stressed here that the ranking was based on length of service.)

McDonald also was one of a distinct few, if not the only employee, to be honored by the presence of customers at her retirement reception. Fellow riders of the Arkansas State Employees Association van also joined Water Works' employees and retirees in her retirement send-off on August 8, 1994.

The retiree's days with the Water Works go back to when our Customer Service and Administration offices were located in Robinson Auditorium, which since has been renamed the Robinson Center. She joined us as a Billing Clerk on October 1, 1957, and was named Assistant Contract Clerk in October 1958; Clerk Typist II in October 1962; and New Service Coordinator in January 1964.

McDonald joined our Customer Service staff as a Customer Service Clerk II in January 1978. Her title was reclassified as Customer Service Representative-Office in

See "BETTY MC," Page 2

# Additions and updates on PAGIS horizon

In the next few months, several new and expanded aspects will take shape within our Pulaski Area Geographic Information System (PAGIS).

We currently are finishing up the computerization of records on the more than 20,000 valves within our distribution system.

"We are moving away from a paper medium to a digital format," said **Jos Bell**, Engineering Assistant.

Initiated in 1987, PAGIS is a computerized land mapping system being jointly funded by the Water Works, Little Rock Wastewater Utility, City of Little Rock, and Pulaski County government.

Before PAGIS, we had valve information on paper roll maps and valve measurement records in book form. Updating was done manually. The computerized setup includes options for accessing a visual geo-reference (in map form) and a listing on the street location, job number under which the valve was installed, and a measurement from the curb or another fixed object, Bell explained.

"When it's all on the computer, we'll be able to bring up an area of service, click on a feature, and retrieve an array of background information," he added.

We have completed 9 of our 10 base maps for PAGIS. The basemaps contain geographical details on water mains, valve, and fire hydrant locations.

Next, we will take on the production of atlas-quality mapping, as well as mapping on air-release valves and reducers; the assignment of job numbers to water main segments; completion of material type assignments to water main segments; completion of menu-driven applications to aid Engineering Department employees in the design of water main installation; and the interdepartmental coordination of projects, such as meter reading routes and a facilities management system.

In preparation for atlas-quality mapping, **Richard Williams**, Distribution Foreman, is heading up field efforts to locate and lock in more accurate valve and fire hydrant locations. Hand-held

---

*"We have a long way to go, but all of this should lead to the day when, using the computer, we can click on a house on South Arch Street and bring up a map and other geographical details on that structure."*

---

Trimble TDC1 data collectors are being utilized for this project.

"The employees essentially locate a valve, lock in its location using a satellite reading, and download the position of the valve into the hand-held unit," Bell said. "This information will help us to obtain atlas-quality information on the facilities."

**Napoleon Harris**, Water Distribution Specialist I (WDSI), and **Matthew Phillips**, WDSIII, have assisted **Williams** on the project.

For the initial digitized PAGIS database, we used information from roll maps, which were drawn at a 1-inch-to-500-foot scale.

"That was fine when it was all that we had," Bell said. "Now, we have PAGIS basemaps, road edges, building outlines, utility poles, and other geographical details captured on our PAGIS basemaps. The basemaps show true geographical projection in state plane coordinates.

"The global positioning system (based on satellite technology) will show the true location within submeter accuracy (within three feet). Later, using this same technology, we're going to capture all meter locations inside the city limits. With this information, we'll be able to build a database with corresponding addresses," he added.

Bell noted that the initial aerial photography that provided information for the PAGIS basemaps was done almost 10 years ago, beginning with the pilot phase of the digitized mapping system. Participating entities currently are working on a contract for aerial photography of building outlines, elevations, road edges, street centerlines, etc., south of the Arkansas River. The information

will be used to convert and update new information for the basemaps.

"We're especially trying to update data, capture new data, and take in those areas that were not included in the initial phase of the Pulaski Area Geographic Information System," Bell said.

Plans are to add digital orthophotography (computer images) to the PAGIS system. In the digital basemap format, uniform symbols are used to identify structures (buildings, valves, fire hydrants, water main, etc.). In orthophotography format, structures appear as they would in regular black/white photographs.

Last, but not least, LRMWW is working with the City of Little Rock on the standardization of the street addressing system: "A standard street address system is one of the key links in our database."

Bell said it's evident there are "a lot of things on the horizon for PAGIS."

"We have a long way to go, but all of this should lead to the day when, using the computer, we can click on a house on South Arch Street and bring up a map and other geographical details on that structure," he said.

He added that the Water Works' "big push this year" is have our Distribution Dispatchers utilize ArcView software in providing field crews with information on water main, valve, and fire hydrant locations.

"We want them to begin using the PAGIS viewer instead the valve books and paper roll maps," Bell said.

Other employees working on the PAGIS additions and updates are **Gary Wittmuss** and **Monte Myers**, PAGIS Operators; **John Davis**, Computer-Aided Drafting Technician; **Julian Brown**, Engineering Assistant; **Dale Russom**, Director of Engineering; and **Liddy-Ann Everett**, Distribution Dispatcher. ♦

*Liddy-Ann Everett, Distribution Dispatcher, provided the Page 1 photograph for our article on the Pulaski Area Geographic Information System.*