

The mission of the Northeast Ohio Regional Sewer District is to enhance public health and welfare through the efficient, cost-effective conveyance and treatment of wastewater. This is accomplished by an organization, dedicated to professionalism, fairness and consistency, that anticipates and responds to the changing environmental needs of the community.

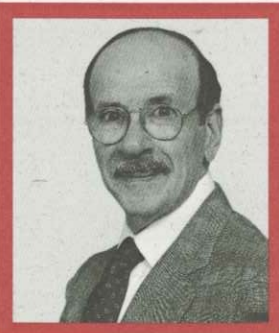


Northeast Ohio Regional Sewer District

1991 Annual Report



Rosemarie F. DeJohn, President



Edward H. Richard, Vice President



Mayor Ronald D. Sulik, Secretary



Reverend Emmitt T. Caviness

A Word From The President Of Our Board of Trustees

Early this year the District adopted a mission statement which is printed on the cover of this report. The key words, "*enhance public health and welfare through the efficient, cost-effective conveyance and treatment of wastewater*" describe what the District does.

"enhance public health and welfare"

Our first responsibility is to manage wastewater to minimize risks to the public. Second, we are working to restore and protect the ecological health of our streams, rivers and lakes. Each of our treatment facilities is monitored daily for a list of substances to assure that we are providing effective and thorough treatment. We are gauging progress by sampling waterways. Results so far show that fish species and other aquatic life forms are increasing. This is a very important indicator of our progress in restoring water quality.

Still, much remains to be done. One very big problem the District is expanding its efforts to control is discharge from combined sewers, which happens during rainfall. When combined rainwater and wastewater exceed the sewer system's capacity, they spill into the waterways. The bacteria and debris in the wastewater result in both health and aesthetic impairments.

"efficient and cost effective"

Protecting the environment requires large public expenditures, so controlling cost is one of our main concerns. It is equally important to find a balance between the costs of our programs and their benefits to the community.

One way to control costs is through more efficient use of resources. We are achieving better resource management by upgrading the computer system used to store and retrieve information concerning employees, equipment and finances.

One event which severely impacted the District was the termination of the Federal Construction Grants program. As a result, the District was forced to sell bonds and impose a rate increase to finance system improvements. In response to customer concerns about the increase, the District is phasing it in over four years.

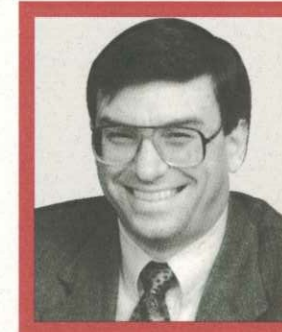
"conveyance and treatment of wastewater"

Revenues from the rate increase and bond sale will help fund improvements to the wastewater collection and treatment system. These improvements include continuing construction of two large interceptors and numerous intercommunity relief sewers, rehabilitating existing sewers, and upgrading treatment plants. In 1991, the District invested \$41 million to improve its facilities.

Protecting this investment requires efficient operation of these facilities. Employees who operate the wastewater treatment facilities were recognized both locally and nationally with awards for quality performance.

As president of this outstanding public agency, I am pleased to be associated with such conscientious people and foresee many more productive years ahead.

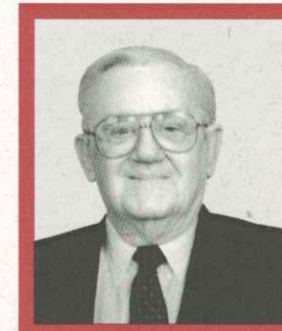
Rosemarie F. DeJohn



Mayor Thomas J. Longo



William J. Reidy



Lester C. Ehrhardt



William M. Denihan

The District's efforts this year encompass finding new ways to finance system improvements and increasing operation efficiency in response to the loss of federal funding.

Combined Sewer Overflows - Planning Now for the Future

The District is aggressively addressing one of the major environmental problems still having adverse impacts on the area's water quality -- combined sewer overflows or CSOs. Combined sewers are a carry-over from the early days of sewer construction and are designed to carry both wastewater and storm water in the same pipe. During dry weather, all of the flow in the pipe is routed to the

treatment plant. When it rains, the flow increases and often exceeds system capacity. To prevent flooding of basements and streets, the combined sewer system discharges combined wastewater into the streams, bypassing treatment. This causes health risks due to increased bacteria. It also results in unsightly debris in the waterways. Though the District has pioneered innovative CSO control technology in some areas, much remains to be done.

In 1991, the District began a two-year, \$4.4 million CSO Facilities Planning Study to improve the operation of the combined sewer overflow control system and develop new control strategies to improve water quality as part of a master plan for CSO control. The study will help us learn the impact of CSOs on

the environment, the extent of these overflows, the amount and types of pollutants they contain and the resulting water quality problems.



Combined sewer overflows release untreated combined wastewater directly into the environment. Currently, the District is studying ways to control these overflows.

During the year, the District sampled CSOs and receiving waters to determine pollutant concentrations. We also used special equipment to measure the flow in the combined sewer system and carried out a field program of inspection and mapping of CSO control structures. Much of the 49,000 acres serviced by combined sewers lies within the City of Cleveland; however, nine suburban communities also rely partially on combined sewers.

The effort devoted to controlling this problem will increase as time moves on. This is a serious concern to the District and will require a substantial investment of resources throughout the next two decades.

Electronic Information System- Efficient Resource Management

Rapidly changing computer technology coupled with a need to efficiently manage resources has resulted in a project to improve the computerized information system. In April, the District began revamping its information storage and retrieval system, implementing the latest technology and operation strategies and forming user groups of employees who will use computers to manage resources.

The project focuses on evaluating hardware and software needs, establishing acquisition policies and procedures, setting programming standards, developing a contingency plan in the event of a system disaster and re-examining staffing needs.

By October, the organization's technological needs were defined and proposals based on system requirements were reviewed. User groups evaluated proposals and



In March, employees learned about the Electronic Information System Development Program which will renovate the information storage and retrieval system.

vendor demonstrations. By year end, the user group made hardware and software recommendations. From the recommendations, three systems which process information on employees, equipment and finances are being implemented. When this project is completed within the next few years, the District will have a fully integrated information system to manage these areas.

Bonds, Loans and User Rates - Funding Improvements Without Federal Help

In the early part of 1991 the District received a \$13.6 million grant for a segment of the Southwest Interceptor. This is the last grant the District expects to receive under the Construction Grants Program. By assertively participating in the grants program, the District has been able to meet the challenges of a large capital improvement program. Since 1973, the District has received up to 75 percent of total project costs for this

program from the federal government. However, 1991 was the last year that federal grants were available to help fund these improvements. Now that the grant program has ended, the District will have to rely on borrowed funds, state revolving loans and user rates for system improvements.

To meet these challenges, the District sold \$122 million of Wastewater Improvement Revenue Bonds, Series 1991. Initially, the bonds were rated A + by Standard and Poor's and A1 by Moody's, representing an upgrade in uninsured ratings from the last bond sale in 1984. Both firms commented on

the District's experienced and effective management team, strong financial performance, and competitive yet sufficient user rates. Their ratings also reflected the stable economy of the District's service area, which includes the city of Cleveland and 49 suburban communities. The District chose to insure the bond issue which provided a AAA rating and resulted in a lower interest rate. Almost all of the first two years of the District's upcoming \$411 million, five-year capital improvement program will be funded by bond proceeds.

New service charges were in effect at the beginning of the year. These represented the first of four annual rate increases. Being sensitive to elderly, low-income customers, the District offered a Homestead sewer rate. The Homestead rate is about fifteen percent less than the standard rate. Service charge revenues cover operating expenses, equipment replacement costs, loan repayments and a portion of capital improvements.

In January, the District received its first loan from the State of Ohio Water Pollution Control Loan Fund. The \$18 million loan will be used to fund construction of a portion of the Heights/Hilltop Interceptor.

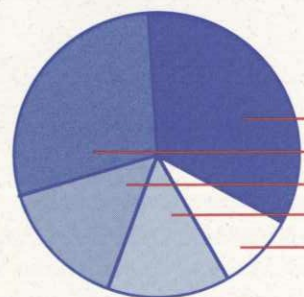
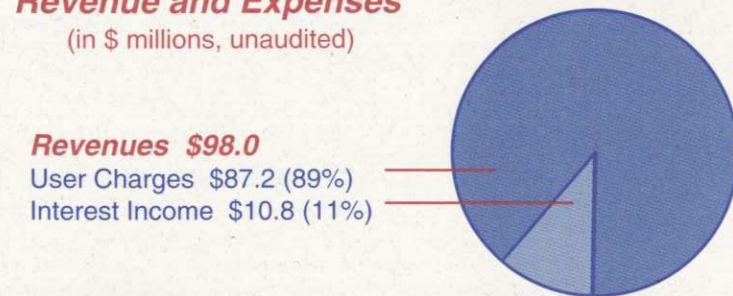
The District will continue providing quality service at affordable costs regardless of the funding challenges it faces.

Revenue and Expenses

(in \$ millions, unaudited)

Revenues \$98.0

User Charges \$87.2 (89%)
Interest Income \$10.8 (11%)



Expenses \$92.1

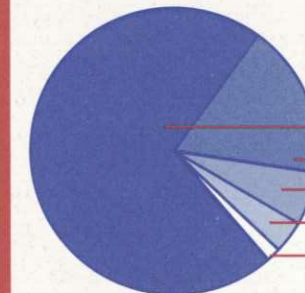
Depreciation \$31.1 (33.8%)
Personnel Costs \$26.5 (28.8%)
Other Expenses \$13.5 (14.6%)
Utilities \$12.7 (13.8%)
Interest \$8.3 (9.0%)

Financial Position

(in \$ millions, unaudited)

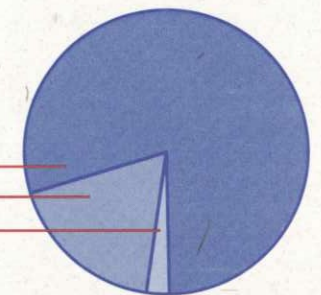
Assets \$912.9

Plant & Equipment \$650.9 (71.3%)
Construction Fund \$160.2 (17.5%)
Other Assets \$53.5 (5.9%)
Cash & Investments \$35.0 (3.8%)
Revenue Bond Funds \$13.3 (1.5%)



Equity & Liabilities \$912.9

Equity \$726.4 (79.6%)
Long Term Debt \$165.3 (18.1%)
Other Liabilities \$21.2 (2.3%)



A copy of detailed audited financial statements may be obtained by writing to:
Director of Finance, Northeast Ohio
Regional Sewer District, 3826 Euclid
Avenue, Cleveland, Ohio 44115

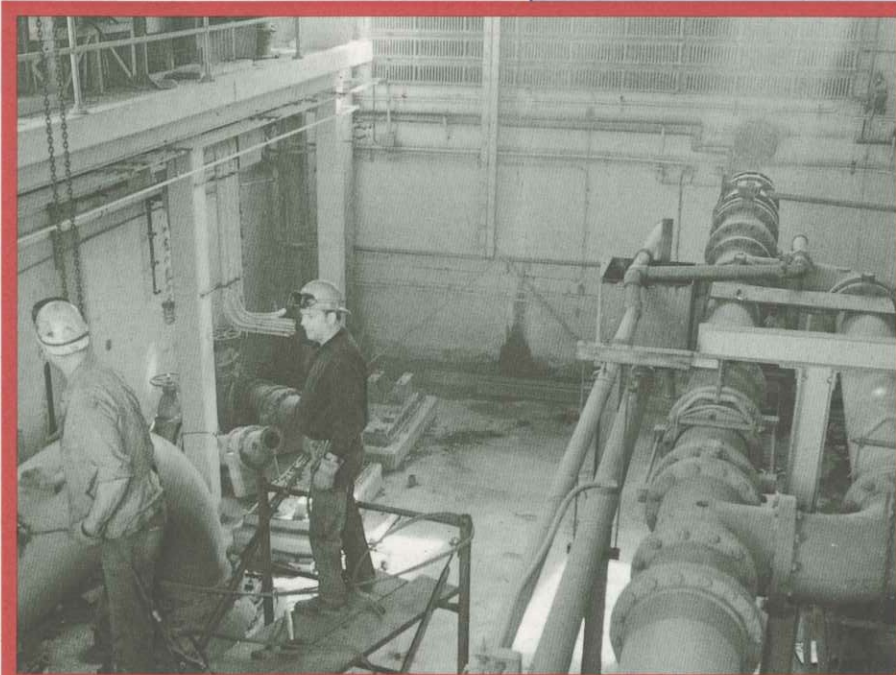
Capital Improvements - Upgrading Facilities Assures Stable System

Periodic improvements to the wastewater collection, treatment and disposal system are necessary to maintain quality operations. In 1991, the District invested \$41.7 million to upgrade its facilities. This investment includes improvements to treatment plants, interceptor sewers, intercommunity relief sewers and the combined sewer overflow control system.

One third of the investment was put into our treatment plants. Over \$5.5 million went to the Westerly Wastewater Treatment Plant for process modification design and site preparation. The plant process is being changed from physical/chemical to biological. This change is needed to enable Westerly to meet biochemical oxygen demand limitations as required by the EPA.

The District invested nearly \$5.6 million in improvements to the Southerly Wastewater Treatment Plant. These included upgrading the disinfection system, enhancing odor control equipment, modifying the solids handling process and installing a new line to transport sludge incinerator ash to holding ponds.

At a cost of \$1.8 million, Easterly Wastewater Treatment Plant continued an aeration tank improvement program which will reduce energy use.



At Southerly Wastewater Treatment Plant, workers dismantle a pumping facility which is being replaced.

By the end of the year, five of the 12 segments of the Heights/Hilltop Interceptor were completed and in service. Construction was underway on the sixth segment.

In October, two additional segments of the Southwest Interceptor were put in service. More than nine miles of the interceptor are completed and operating. The District initiated a \$17 million construction project on the West Leg portion of the interceptor, making this the largest investment for the year.

Three intercommunity relief sewers (ICRS) branching off from the Southwest Interceptor -- Pearl Road, Broadview-Ravine and Parma Park 1 -- were put in service. Two other projects, York Road and Big Creek Parkway, are under construction. A total of 13 ICRS sewers are scheduled to be built by 1999. In the Heights/Hilltop Interceptor area, the District began design of the Bluestone Road sewer and a system of other tributary sewers.

The combined sewer overflow control program facilities planning, existing CSO control system enhancements, and rehabilitation of the Big Creek Interceptor round out the capital improvement program.



A diversion chamber under construction on the largest capital investment for the year, the Southwest Interceptor.

Wastewater Treatment - Award Winning Performance Guarantees Quality

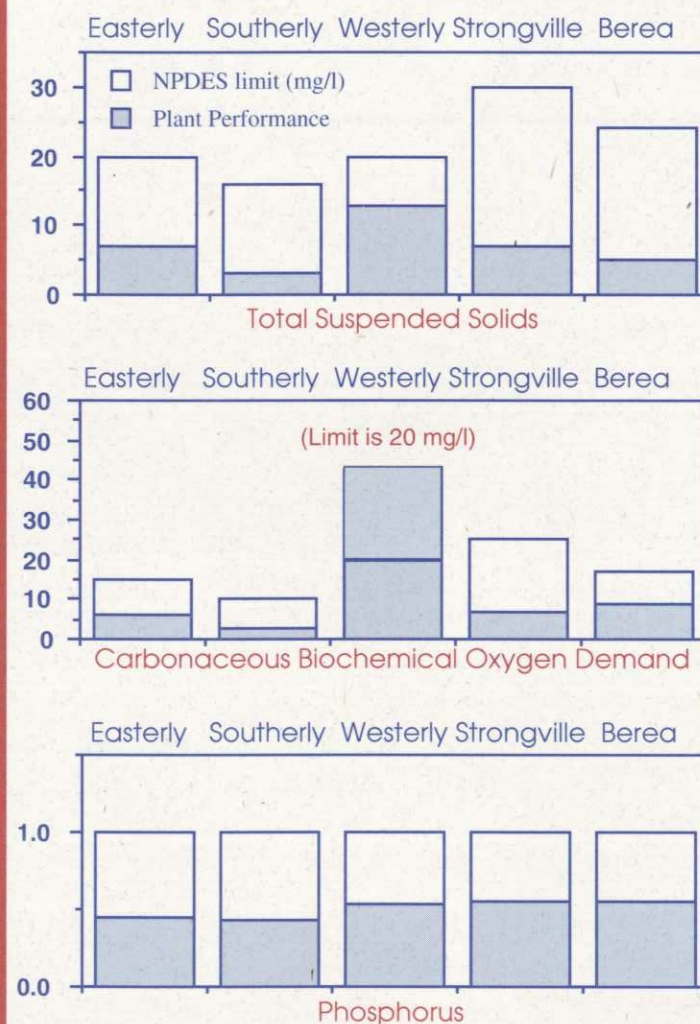
Employees strive for efficient operation at all facilities. It is rewarding to them to know they are contributing to the protection of the waterways.

Receiving special recognition for doing an outstanding job adds to their satisfaction. Five employees received special awards for outstanding work in protecting our waterways and four treatment plants received performance awards for quality of operation.

The Association of Metropolitan Sewerage Agencies presented its 1990 Gold Award to Southerly Wastewater Treatment Plant. The Easterly, Strongsville and Berea Treatment Plants received Silver Awards. The awards are given to plants for consistently meeting limits set under the National Pollution Discharge Elimination System. Each treatment facility must operate within approximately 24 parameters.

Four employees, Mary Garapic, Dan Smith, Ed Haller and Mark Hill, received first place honors in the laboratory event and second place in process control when they competed in the International Operations Challenge during the International Water Environment Federation conference. This five-event competition pitted them against 33 other teams from the United States and Canada. The competition is held annually to test wastewater treatment plant employees skills in plant operations, maintenance and safety. They also won the Ohio Operations

1991 Treatment Plant Performance



Challenge competition, making them eligible to compete at the international level.

In September, William Mack and Edward Haller each received a Public Works Performance Award.

Eleven awards were presented at the first Greater Cleveland Public Works Performance Awards Program which recognized individuals who have made outstanding contributions in public works functions. The objective of the awards banquet was to raise public awareness about the importance of public works service and to increase the "esprit de corps" of the entire profession.

These five award-winners are representative of the quality of the District's employees, whose skills and commitment are helping the agency fulfill its mission to "enhance public health and welfare through the efficient, cost-effective conveyance and treatment of wastewater."



Mary Garapic, William Mack, Dan Smith, Mark Hill and Ed Haller, recipients of special awards for outstanding work in protecting our waterways.



Northeast Ohio Regional Sewer District
3826 Euclid Avenue, Cleveland, Ohio 44115-2504