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PIPELINE

NEWSLETTER

PHILADELPHIA WATER DEPARTMENT

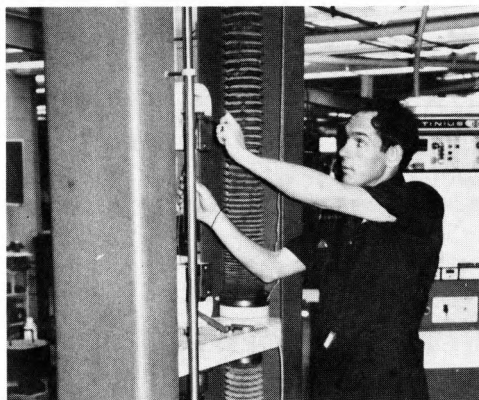
WINTER EDITION 1987

“OUR LABS AT WORK”

The Water Department's Bureau of Laboratory Services is one of the Department's best kept secrets. The amount of work that is carried out by this division is monumental and the technology employed to do the various types of testing is somewhat amazing. Consider this: you walk across a concrete floor, never questioning that the floor will hold you. You turn on your tap for a glass of water and *expect* it to be safe and refreshing. But who is responsible for guaranteeing this for us? Who is monitoring these standards which insure that the public can expect, without a doubt, to be safe and protected against harmful contaminants and defective materials? The Bureau of Laboratory Services assumes this huge responsibility commendably.

The Bureau, managed by Acting Director Geoffrey Brock, is divided into four major branches, each containing their own units. The major branches include: the Materials Testing Lab, Projects Branch, Water and Wastewater Labs, and the Quality Assurance Branch. The Materials Testing Lab, first established in 1894, is located in the Fairhill Pumping Station at 7th & Lehigh. The station's late nineteenth century appearance belies the state-of-the-art technology within, utilized to conduct a full range of engineering services to divisions of the Water Department and other City departments.

Approximately 80% of the Materials Testing Lab's work is executed for the Water Department. The other 20% is requested by other City Departments, such as Streets and Commerce. A good deal of the work required by the Water Department involved samples and materials from the wastewater expansion program, the sewer loan fund, the Broken Water Main Project, and the Queen Lane Plant improvements. In these areas, the vast amount of testing involves concrete cylinders, testing of water treatment



John Donnelly of The Materials Testing Lab conducting a concrete cylinder compression test.

chemicals, soil analysis, and work done on cast iron pipes for the infrastructure rehabilitation project.

The Materials Testing Lab is broken into four sections: Administrative, Quality Certification, Physical Testing and Chemical Testing. The Administrative Section, directed by John Durrant, Chief of the MTL, is responsible for the management and coordination of intralaboratory functions. This section determines the correct specifications to be applied and the proper test methods for materials to be tested. A good deal of time is allotted to consultation with Water and other City Departments. This consultation includes advice on specification preparation, acceptance of materials, interpretation of results and explanation of test methods.

Special Projects, under the supervision of Seymour Greenberg, is a unit of the Administration section. Sometimes when a material fails, it meets all the specifications at face value. At this point, Special Projects steps in and evaluates the circumstances at time of failure. Much work is done in corrosion analysis. Presently the lab is performing corrosion stress tests on corroded hat bars from the biological contactors at the Northeast Water

Pollution Control Plant. The bars were series 400 stainless steel as required, and the corrosion fatigue was unexplainable. Other environmental elements are therefore being investigated. Additional projects of interest tackled by Special Projects include: mattress specifications for Prisons, e.g., durability and non-combustibility, longevity of water meters, permeability of polyethylene pipe, and "the boot" specifications for the Parking Authority.

In September 1983, the Quality Certification Staff was formed to establish quality assurance for construction materials used on Water Department construction projects. The QCS, headed by Dave Perri, is responsible for coordinating the development of a series of standards that define the quality assurance procedures the Department requires from construction material manufacturers. QCS also performs onsite inspections at the manufacturing plant to insure conformance to specifications.

Precast concrete was the first construction material to be examined under the QCS program. Presently, QCS provides inspection services for approved suppliers of Ready-Mixed concrete, gray iron

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Joseph Serbin of BLS conducting a water analysis test at the Baxter Lab.

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NEW DEPUTY COMMISSIONER

Commissioner William J. Marrasso recently announced the appointment of Patrick Cairo to the position of Deputy Commissioner, replacing Thomas Walton, who has embarked on a consulting career of his own. Mr. Cairo will be responsible for managing the Operating Division of the Water Department. "Patrick brings considerable knowledge and experience to this position since he has worked over 17 years in the Water Department and recently held the job of General Manager of our Planning and Engineering Division," said Commissioner Marrasso. He will oversee the Department's largest division, which is responsible for the processing and distributing of water and wastewater services and the management of recycled sludge products through land-based application programs.



In accepting this position, Patrick indicated that his priorities will be to maintain the Water Department's high standard of service to its 525,000 customers and to strengthen the Water Department's ability to effectively meet environmental requirements.

This year, we have placed into operation the last of our three upgraded wastewater treatment plants, and already these multi-million dollar facilities have brought considerable improvements to the quality of our rivers. Patrick indicated that the Water Department will continue to focus its efforts on establishing the regional operating and maintenance procedures to insure that these facilities will achieve their objective.

Patrick's previous experience with the Water Department was as General Manager with administrative responsibilities for the overall engineering aspects of the Department, including the planning,

design, construction and start-up of new and renovated treatment facilities, and as manager of technical services provided by the Data Management Center and the Bureau of Laboratory Services.

Patrick received his Bachelor and Master's Degrees in Civil Engineering from the University of Pennsylvania and is a registered professional engineer in the State of Pennsylvania. He has held numerous elected and appointed positions in national associations for water utilities. He and his wife, Johanna, have two children and live in the Fairmount section of Philadelphia. **P**

EXPLORING AN INVESTMENT IN YOUTH

On November 18, 1986, the Water Department kicked off the Exploring Program at the Southwest Water Pollution Control Plant. Eleven students attended the first meeting. The students showed a keen interest in engineering, and expressed their enthusiasm by registering that night.

Exploring is the young-adult division of the Boy Scouts of America. Explorers are young men and women, aged 14 through 20, who join Explorer posts organized by businesses, industries, churches, schools, government agencies, professional societies, civic clubs, labor unions, sports clubs and other community organizations. Explorer programs match the interests of youth with the adult expertise and program resources of the organization.

The Southwest program was set up by the post committee, and will cover various disciplines of engineering. Meeting nights have been scheduled for the first and third Wednesday of every month, at 7:00 p.m., in the Southwest Conference Room.

Some of the areas of engineering to be covered are:

- What is an engineer?
- Education needed to become an engineer.

COMMITTEE MEMBERS

Phil Kalnitsky, *Southwest, Advisor*
Maureen Sullivan, *Customer Affairs, Exploring Coordinator*
Tony Micciolo, *Design, Committee Chairman*

William Wankoff, *Chief, Wastewater Treatment*
Mark Wheatcroft, *Southwest*
Mike St. Clair, *Survey*

Judi-Lynn Palmer, *Sludge Mgmt.*
Andy Bereshnyi, *Southwest Const.*

SLUDGE BARGE NAMING "NAME THAT BARGE"

The new Southwest Water Pollution Control Plant Compost Facility is slated to begin operation this summer. To move the sludge from our Northeast Plant, the Water Department will be purchasing two sludge barges to make this regular journey up and down the Delaware. These two barges need names and a color. Therefore, the Water Department is depending upon its employees to come up with some suggested names . . . names which are positive, appropriate and creative. This "knack for naming" has been proven before with the great response we received in naming the "Pipeline."

Please send your proposed names and choice of color for our two new barges to Maureen Sullivan, Customer Affairs, 3rd Floor, One Reading Center by April 16th, 1987. **P**

- How engineering relates to the Water Department.
- Engineering disciplines.
- Engineering careers and options

Anyone interested in covering one of these subjects for a meeting, please contact Phil Kalnitsky, M.E., (492-4000) at the Southwest Plant.

Sincere thanks must be extended to the members of the committee for their diligent efforts in the forming of this Explorers Post. Many meetings, telephone calls and much correspondence have been exchanged on a volunteer basis, since this concept was introduced to former Deputy Commissioner Thomas Walton in February, 1986.

This Explorers Post is a first for the Water Department. We hope to start another post within the Department, in the near future, and are presently reviewing areas of interest. If you have any ideas or questions, please contact Maureen Sullivan, Customer Affairs at 592-6144 or Mark Wheatcroft, Southwest WPCP at 492-4000. **P**

“OPEN HOUSE HEADLINERS”

The Southwest Water Pollution Control Plant never looked so good. Tom Lauletta, Superintendent of the Southwest Plant, launched his own “white tornado” (consisting of some dedicated Southwest employees) to make the plaza tiles gleam and the fountains bubble with tumbling water. The Southwest Administration Plaza was transformed into an appropriate showcase of all Water Department divisions at the first Water Department Open House, held on Saturday, October 25, 1986. Despite the lack of sun, the occasion lent its own brightness. In addition to the resourcefulness of the Southwest staff, months of hard work and time were invested by Joan Anne Przybylowicz, of Customer Affairs, and her staff, Eileen McGuire and Barbara Malone, to coordinate and organize various department efforts and exhibits for this monumental event.

The purpose of the Open House was two-fold. The Open House was seen as an opportunity to introduce the public to Water Department operations in order to create a better understanding of our work and goals. Facilities such as the Southwest Plant are very much a part of the community. Therefore, an understanding of our operations and goals are essential for community acceptance. In the same vein, many of our own employees are not familiar with the work of other divisions. Here was the opportunity to see firsthand the type of work each division performs.

Activities and exhibits were concentrated in the plaza of the Administration Building. Units set up their exhibits and displays around the perimeter of the plaza, illustrating their division's specific function and projects. It was certainly apparent that much time and creative effort was devoted to each exhibit. In case you had inadvertently missed the Open House, here is a list of participating divisions and their displays.

Tours were also conducted throughout the plant under the able guidance of Southwest employees. Tour sites included primary treatment facilities, oxygen/aeration facilities, effluent pumping station, and sludge thickening facilities. The present compost site was available for touring on request.



Sewer Maintenance Crew cleaning a sewer at the Southwest Water Pollution Control Plant.

Other special activities were conducted throughout the day. Captain Sewer was on hand, distributing balloons and greetings. Mayor W. Wilson Goode, accompanied by Managing Director James S. White and Fire Commissioner William Richmond, joined Commissioner Marrazzo in welcoming all Open House participants. Mayor Goode also accepted the honor of christening the new Watermobile. Later, hotdogs and other refreshments were served to keep the active crowd fueled for the rest of the day.

The success of the Open House must be attributed to the enthusiastic participation of all Water Department divisions. But perhaps the special feeling surrounding the day was the result of the Water Department truly functioning as a unified force. For the first time, most units of the Water Department were at the same location at the same time. The result was a pleasurable and educational experience.

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Plaza Area

Customer Affairs	Water Distribution Model
Customer Information	Brochures, flyers, pamphlets
Customer Service	Service inspection procedures and equipment
Design	Historical infrastructure material and insituform model
Drainage Information	History and photographs of infrastructure
Industrial Waste	Procedures and equipment display
Plant Expansion	Construction progress photos and inspection tools
Safety Office	Safety procedures and equipment
Inlet Cleaning/ Sewer Maintenance	Maintenance tools, equipment and procedures
Water Pollution	TV monitor for locating breaks and clogs in sewer lines
Control Plants	Employee training procedures
Personnel	Employment Opportunities

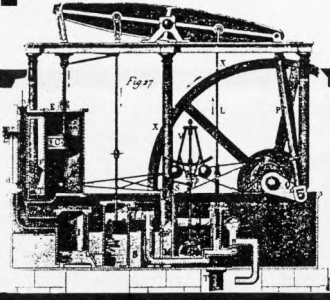
Administration Building

Fairmount Waterworks	Interpretive Center Model
Computer Room	
Water Department Slide Show	
BLS	Slide show, microscopic exams, chemical analysis, materials testing

Beyond Plaza

Inlet Cleaning	Demonstration with truck and equipment (cleaning inlet)
Sewer Maintenance	Demonstration with Vacuum Truck and equipment (cleaning manhole)
Distribution	36-inch valve, pipe sections, ferrule installation and wet tap demonstration
Emergency and Support Services	Hydrant set-up
Sludge Management	Compost pile curing demonstration
Southwest Shop/ Maintenance	Electrical, mechanical, welding, and instrumentation demonstration

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WHAT'S PUMPING

A NORMAL DAY AT THE WATER DEPARTMENT

Friday, October 31, 1986 was a busy day at the 29th and Cambria complex. The Chief of the Water Department (A.H.) was dressed in a wool and silk outfit, sophisticated as usual. She came prepared to attend a birthday celebration being given for her after work.

Her Chief of Surgery (G.F.) was in uniform with a ready to operate appearance, blue surgeon set, coat, stethoscope, glasses. Oh, and of course sneakers. Today she is ready to operate on Cleopatra (E.H.) garbed in all her crowning glory and guarded by her Main Slave (D.R.).

Unknown to the staff is an outside party attended by Bahama Mama (D.K.), two Punk Rockers (M.J. and C.W.). They



Normal day at 29th & Cambria.

have with them two witches (S.B. and J.S.). Shortly after the party started, in came a School Gal (A.H.), and a teen (A.M.). They were followed by Mini-Mouse (C.S.), Peter Pan (N.W.), the Head Madame (A.S.) and her ladies, a Flapper (D.W.) and last but not least a Liberated Geisha Girl (S.S.).

After surgery the Chief caught up with her right hand, The Hooker (V.W.). Somehow the Hooker got wind of the party and quickly summoned Robin Hood (R.D.) to make sure they had safe escort to the party before midnight. Robin Hood, of course, was armed with bow and arrows to assure a safe journey.

Needless to say with food and drink ready it was time to PARTY!!!

After all it was HALLOWEEN NIGHT!!!!!!!

WATER ON WHEELS

The H₂O Mobile is the Water Department's new mobile educational unit. It visits schools and neighborhoods to provide information and brochures explaining the operation of the Water Department and water conservation services provided.

The mobile has recently received a new paint job and logo, with bright colors splashed into the ballooning figure of H₂O against a light blue background. The vehicle made its debut at Philadelphia's Super Sunday celebration on Sunday, October 19 and was christened by Mayor Wilson Goode at the Southwest Plant's Open House on October 25.

The H₂O Mobile is expected to make a big splash in all Philadelphia neighborhoods and is available for community fairs and events. For more information contact Maureen Sullivan at 592-6144.

"RESTORATION REPORT"

You have probably heard that the costs of some construction projects have gone "through the roof." But how many of those projects literally "raised the roof?" Such an unusual event took place at our own Fairmount Waterworks Pavilion on October 7th in an effort to remove the existing columns for restoration. The Waterworks Pavilion was built in 1871, entirely of timber construction, supported by hollow, wooden plank-segmented columns.

The Pavilion's columns are in varying stages of decay. Therefore, the roof (which was replaced with metal in the early 20th century) was raised approximately one inch by hydraulically jacking up the scaffolding erected beneath the roof. The columns were then slipped out and are presently being examined for restoration.

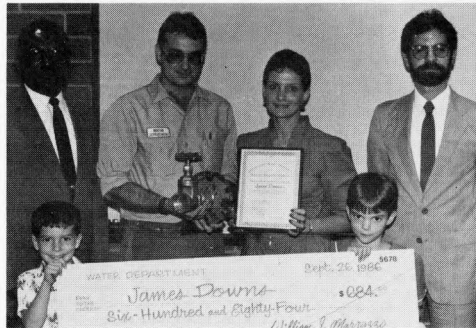
Other excitement surrounding the Waterworks restoration concerns the awarding of a consultant service grant from the American Association for State and Local History. The grant will provide the services of a consultant for two days to conduct historical and artifact research.



"Capt. Sewer emerges from his new headquarters, The Watermobile."

“THE POWER OF SUGGESTION”

Commissioner Bill Marrazzo presented the first Employee Suggestion Award to James Downs, Treatment Plant Operator II, at the Southwest Water Pollution Control Plant, on September 26, 1986. The Employee Suggestion Award is a relatively new program in which employees are encouraged to write down their ideas or suggestions which may modify present operational methods or equipment and thereby produce subsequent reductions in cost or labor. The awards are in the cash amount of 10% of the first year cost savings resulting from implementation of the suggestion. Suggestions may include improvements in such areas as customer service and employee working conditions.



Commissioner Marrazzo presenting The Employee Suggestion Award to James Downs of The Southwest WPCP in September '86.

Although this type of suggestion cannot be measured in dollar amounts, awards of merit are presented since improvements in these areas are equally important.

Mr. Downs was awarded \$684 for his suggestion to remove clogs from digester heating and circulating pumps through the installation of a wash-out connection in the pump's inspection plate. The con-

nection provided for an easy hook-up to plant water sources to free clogs with plant water pressure.

Recently, two new suggestions have been awarded by the committee to Gerson Korntreger of BLS Projects Section on Ford Road and Joseph Wawrzyniak of Southeast Operations. Mr. Korntreger has been awarded \$50 for his "merit" suggestion recommending the regulation of postage stamps for field units through the use of a log. Mr. Wawrzyniak will receive an estimated award of \$353 for his suggestion modifying Plant lighting which will save on electrical costs. Mr. Wawrzyniak recommended changing the overhead lighting from incandescent to fluorescent or sodium vapor, installing timers for automatic shut-off and the use of key switches to manually turn lights on and off at various locations.

Now who can say it doesn't pay to think?

STRIDING FOR SUCCESS

A year ago, Andre Brown, Emergency Support and Services, was deciding whether to become a distance runner. His barber had been trying to convince him for months to join the New Striders West, a local track club, of which the barber was already a member. So he finally gave in and joined the club and soon he was running on Sunday mornings, training with the other members for upcoming runs and marathons. In his first race, a 3.1 mile run, he finished in 26 minutes.

Soon, Andre was training alone, averaging up to 14 miles a day, four times a week. In his second race, the Broad Street Run, in May, 1986, he completed the ten miler in one hour and 22 minutes, finishing 1,500th of 3,200 participants. The next two runs, one for the Sickle Cell Anemia Foundation and the other for the American Diabetes Association, were 6.2 mile races which he finished in 46 and 47 minutes. Then it was the Run for Liberty in June, 1986 and he completed the five mile run in 36 minutes, in the top third of the participants. Averaging one run a month, Andre continued training with the club and alone for the runs that benefited local charities. He completed the Philadelphia Distance Run, the Terry Fox Run and then the Philadelphia Independence Marathon on November 23, 1986. This was the most difficult because of the cold



Andre Brown finishing the Philadelphia Independence Marathon.

weather, the distance and the many hills included in the race from Center City to Chestnut Hill and finishing at Memorial Hall in Fairmount Park. However, he completed the 26.2 mile run in four hours. His last race for 1986 was for world peace when the New Freedom Striders West participated in the Earth Run on December 10, carrying the torch that had been through several countries and states and on its way to finishing in New York.

In 1987, Andre plans to train harder, to improve his speed for better finishing times. Upcoming runs are scheduled for mid January and February.

KUDOS TO SAM SULLIVAN AND MARTIN MCCALL OF INLET CLEANING FOR A "JOB WELL DONE"

Thursday, November 13, 1986

Philadelphia Water Department
Commissioner Marrazzo
ARA Towers

Dear Sir:

Today about 10:00 a.m., Truck #797183 and two City employees of the Philadelphia Water Department (truck driver and assistant) cleaned out a sewer located at the corner of Cottage and Levick Streets. I don't remember when this was last done but they did a very good job considering all the sewage that was taken out.

I was amazed at the whole truck load of refuse that was cleaned out. The men were very courteous as I went out to see what the Water Department was going to do, then I went inside and watched as it was too cold outside. They worked steadily the whole time they were there and I must give them and the Water Department credit for a job well done.

Thank you for this service.

A Resident & Taxpayer

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castings, gate valves, and welded steel inlet frames and grates.

To date, eleven Ready-Mixed Plants, six precast concrete producers and three foundries are under the watchful eye of QCS. Surveillance methods include unannounced inspections, documentation audits, sampling of test specimens for analysis at the MTL, and in-depth product inspections at the plant. Detailed records of each plant's performance are maintained and inspectors are assigned when negative trends develop. In addition, QCS provides weld inspections and concrete core testing support to the Physical Testing Section.

Joanna McErlean, who is virtually surrounded by broken concrete cylinders, bagfuls of soil, and pieces and sections of broken pipes and pipe clamps, is supervisor of the Physical Testing Section. Joanna seems at home with these items like a museum curator. The Physical Testing Section performs mechanical and physical analysis on such construction materials submitted by City Departments.

Concrete accounts for a large percentage of the Section's work. Tested in the form of cylinders by a newly automatized 400,000 pound capacity Tinius Olson Universal Testing Machine, concrete samples are brought in from the field and cured in the lab under controlled humidity and temperature. The cylinders are broken at seven and 28 day intervals to test for adequate strength and aggregate composition. Computerized reports are sent to the various field offices to keep them informed of the concrete's progress.

Soil analysis is performed routinely. Sieves are used for particle size distribution, and maximum density and optimum moisture provide valuable information concerning strength of soil foundations. Metal products are tested for hardness, tensile strength, yield strength and elongation.

The Physical Testing Section has been instrumental in the Water Department's broken water main study. Tests are conducted which emphasize breaks relating to age of pipe, graphite corrosion, surrounding soil and depth of soil cover. Visual inspections, in conjunction with mechanical testing, have proven to be a valuable method of piecing together relative causes of pipe breaks.

The Chemical Testing Section is headed by Sheldon Issac, who supervises a diversified group of chemists. Water Department requests are numerous and varied. The greatest number of samples concern

chemicals for water treatment, e.g., granular activated carbon. Other department submittals include sand for pipe bedding, concrete and mortar components, caulks and packing, broken water mains and surrounding soil, metals from pollution control equipment and glycol from heating lines.

Other departments such as Procurement, send samples of detergents, floor care products, mops and brooms, clothing and fabrics, carpeting and solder. The Commerce Department routinely requests the testing of water which runs off the concrete and asphalt runways at the Airport to check pH and oil content. The Streets Department needs rock salt tested for sodium chloride content and gradation.

The Chemical Section also has become involved with the testing of sludge, grit and compost from the wastewater treatment plants. Tests are conducted for organic matter, corrosivity and ignitability.

Most recently, the Chemical Section has become involved with the testing for lead content in the City's drinking water. Customers' services are checked for sources of lead contamination, e.g., brass fittings, lead solder joints and old lead pipes.

These four sections have together contributed to make the Materials Testing Lab a valuable source for insuring that the City's building and procurement programs are assured quality materials. Lab director John Durrant was proud to point out that the Lab has become almost completely digitized, enabling test results to be more readily available and applicable to specification standards.

Because the Safe Drinking Water Act has been revised to be more stringent than ever, the Water & Wastewater laboratories, located at the Baxter and Belmont plants respectively, have stepped up their water vigilance. To be charged with the responsibility of insuring that the water delivered to our customers is safe is no easy task. Water & Wastewater laboratory Chief James Coyle has under his supervision a variety of laboratory specialists, each fulfilling a different function in assuring water quality.

Philadelphia obtains its drinking water from the Delaware and Schuylkill rivers. This water is treated and distributed by our three treatment plants: Baxter, Belmont and Queen Lane. In order to thoroughly understand our water quality and its needs, our water is monitored and tested at the river, during various plant processes and at plant water effluent

points to verify the high quality of the water entering the distribution system.

Our drinking water is distributed to the public through 3,200 miles of transmission mains and six major storage facilities. BLS collects samples from 85 locations *every day* throughout the City and analyzes the water for bacteria, physical and sensory properties, inorganics, organics, radionuclides and trace metals. These samples should represent water as it appears at the customers' tap. Water & Wastewater Labs are broken down into specific sections which test for a variety of elements. Water is broken down into an Organics Section, supervised by James Santo; Water Analysis Section, supervised by Walter Malik; Aquatic Biology Section, supervised by Jean Ballesterio; and the Quality Assurance Branch, headed by Eugene Gasiewski. Wastewater testing is performed largely at Belmont and at the wastewater treatment plants themselves, although some wastewater testing does take place at Baxter. Simulated chlorination is tested at Baxter to determine the optimum quantity of chlorine to be used at wastewater plant effluent points in order to deliver a "safe" effluent to the rivers. Rich Grochowski supervises wastewater testing at Belmont.

The Distribution System Water Quality Project, which includes the sampling of distribution points throughout the City, has a number of other programs which focus on determining the extent and causes of bacteria in our treated water system. A number of points have proven to be a problem in the maintenance of water quality.

Deadend mains are a site for water quality deterioration. Water here exhibits a high turbidity and bacteria may increase during hot summer temperatures due to negligible chloramine residuals. Older mains may deteriorate contaminating water quality.

Storage tanks exhibit changes in water quality if chloramine residuals die off, allowing bacteria counts to increase. Tastes and odors are a problem in the fall, at times when changing temperatures can cause a "turnover" effect, in which cooler denser water settles to the bottom, pushing up the warmer water and sediments which may have accumulated. Seasonal tank drainage has proven to alleviate this problem.

If there are two characteristics of our water that the customer notices most, they are taste and odor. Safe water should certainly taste and smell good, and for

this reason the BLS has vastly improved our analytical ability to correlate the reasons for various tastes in water.

The BLS's Taste and Odor panel utilizes some of the aspects of the Flavor Profile Method used for food testing to distinguish primary tastes. The panel is instructed through a training program to calibrate their senses to an objective intensity scale and to recognize different tastes and odor descriptions by referencing various chemicals and natural elements. Salty, bitter, sweet and sour are the four main categories used to distinguish flavors. Quality assurance is maintained by the inclusion of blanks and duplicates during testing, by keeping sample identities unknown to the panel, and by limiting the number of samples to prevent sensory exhaustion through interlaboratory testing.

Taste and odor descriptions and intensities are compared routinely with instrumental analysis results to relate and identify organic contaminants. Sampling is done at the three treatment plant effluents and their intakes, as well as through customer complaint samples and samples from the rivers, reservoirs, storage tanks and distribution system.

Microscopic examinations are performed on plant and river samples for algae and protozoa. Analytical methodology studies are conducted utilizing the Presence/Absence technique as a tool for determining bacteriological quality of water at various stages of the treatment process. This testing method is used for the detection of coliform bacteria. The Standard Plate Count (SPC) methodology is also used as a guide in detecting bacteria.

Major programs undertaken by BLS include the Cross Connection Program supervised in conjunction with L & I and the Health Department. The Water Department maintains a general containment policy to insure that our potable water supply is not contaminated by connecting lines. Appropriate backflow preventers are specified at the meter for the containment of any backflow problem within the customer's residence. The reduction of trihalomethanes (THMs) are high priority at BLS with the anticipated revisions to the Safe Drinking Water Act. THMs are produced by the chlorination of water. The Water Treatment Section, in conjunction with the BLS, have been modifying treatment processes in order to reduce THMs by decreasing pH, reducing chlorine contact time and using alternate disinfectants such as chlorine dioxide.

The sanitary condition of new relays and repaired water mains are determined by BLS. Samples are collected and analyzed for chlorine residual, pH, color and turbidity, and must meet Water Department standards before they can be placed into service. Other problems within the water distribution system involve the corrosion of elements in a plumbing system such as old lead pipes and solders. Lead has been found to occur in systems when water stands for a period of time in new plumbing with lead soldered joints. The reduction of lead content in our drinking water is a major goal, again under the provisions of the Safe Drinking Water Act.

This article concentrates on only the water aspects of the BLS. Wastewater studies are another dimension undertaken by our Wastewater Laboratories and sections at the BLS. Our next issue will address these important sections in conjunction with our Industrial Waste Division. **P**



SOUTHWEST WATER POLLUTION CONTROL PLANT EMPLOYEES OF THE YEAR

Every year the employees of the Maintenance and Operation Units at the Southwest Water Pollution Control Plant select an outstanding employee of the year.

This year three exceptional employees were chosen. Congratulations to Lloyd Walls, Machinist; Robert Hertens, Electrician; and Harry Carter, Sub-Labor Crew Chief.

Reserved parking spaces at the plant, H₂O mobile mugs, hats and calendars are just a few of the prizes the awardees received. **P**

1986 RETIREES

NAME	UNIT	DATE
Mario G. Celoni	Design Branch	5/26/86
Greta M. Ellis	Design Branch	3/24/86
Raymond Finkelstein	Design Branch	1/6/86
William Raschiatore	Construction	4/1/86
Lawrence J. Pineiro	Survey	1/7/86
Joseph H. Stellabotte	Design	1/13/86
Albert DeRentz	Construction	9/3/86
Floyd H. Platton	Personnel	4/27/86
Joseph A. Duffy	Finance	3/24/86
Theodore Baruch	BLS	4/7/86
Edward Shervin	Water Treatment Hdqt.	3/25/86
John Saunders	Belmont Filters	6/3/86
Herbert Heller	Belmont Filters	5/15/86
Wilbert H. Travis	Water Conveyance Hdqt.	4/2/86
Darrell S. Stratford	Distribution	9/29/86
Carnell Bishop	Distribution	8/4/86
Oliver Baldwin	Distribution	6/20/86
Isadore J. King	Distribution	2/12/86
Donato Caruso	Distribution	1/27/86
Earley Reaves	Emergency Supt. Svcs.	12/8/86
Peter J. McGuire	Emergency Supt. Svcs.	8/4/86
Leroy C. Millard	Emergency Supt. Svcs.	6/11/86
Clarence Driggins	Emergency Supt. Svcs.	3/23/86
Willie Morman	Emergency Supt. Svcs.	2/28/86
Jesse J. Mathis	Emergency Supt. Svcs.	1/25/86
Joseph J. Sellers	Emergency Supt. Svcs.	1/20/86
Darnell G. Lewis	Pumping	8/29/86
Robert Lignelli	Logan Garage	2/3/86
Percy Johnson	Bldg. Maint.	8/12/86
Vincent S. Stockmal	Plant Maint.	8/7/86
Robert C. Harris, Jr.	Central Stores	5/1/86
James Briscoe	Northeast Plant	12/13/86
Joseph Gosselin	Northeast Plant	12/7/86
Henry Jackowicz	Northeast Plant	11/13/86
Walter Taylor	Northeast Plant	4/7/86
Hayward Washington	Northeast Plant	2/5/86
Samuel D. Gray	Northeast Plant	2/1/86
Willie Jones	S.W. Plant	7/10/86
David C. Garr	S.W. Plant	5/21/86
Frederick Hicks	S.E. Plant	11/20/86
Leon S. Skitek	Water Treatment Hdqt.	9/15/86
James J. Duffy	Wastewater Treatment Hdqt.	3/19/86
Cyrus Gordon	Sewer Maint.	6/5/86
Samuel Elliott	Sewer Maint.	6/2/86
Archie Clark	Sewer Maint.	3/5/86
John Boerner	Sewer Maint.	3/3/86
Phillip Poindexter	Inlet Cleaning	8/7/86
Luther Fairley	Interceptors	9/29/86
Sam Francis	Interceptors	6/9/86
James Roberts	Interceptors	2/4/86
John Albertson	Bldg. Maint.	3/20/86
John Goodwin	S.W. Plant	4/8/86
Norman Reed	Inlet Cleaning	4/3/86
Clarence Cohen	Sludge Mgmt.	1/6/86

PERSONAL ACHIEVEMENTS

Thomas Varughese, Design, became a United States citizen on July 9, 1986.



Three departmental engineers received Masters in Civil Engineering degrees from Drexel University on June 7, 1986. Congratulations to Jerry Kuziw, SEWPCP, Ray Staniec, Collector System and James Hampson, Construction.

COMPLETE FINANCIAL SECURITY NOW AVAILABLE

The Deferred Compensation Plan has recently taken a step toward offering complete financial security. On January 13 of this year, it began to offer a death benefit option. City employees will now be able to direct up to 25% of their total deferral towards the purchase of life insurance.

It is available through the convenience of payroll deduction. Up to three (3) times your salary is available using a simplified issue process with only eight (8) medical questions. Cash value will be credited at 9% for one (1) year. This rate currently exceeds the rate of return on most other investments, such as C.D.'s and money market funds.

Unlike traditional group premiums, including the new flex plan, these premiums remain level. The premium remains level at separation of service or retirement, if you wish to keep the policy. Deferred Compensation is the only way the life insurance can be purchased with before-tax dollars.

Additional information can be obtained from representative, Steve Bialon, at (215) 557-7840.

PIPELINE EDITORIAL BOARD

The Pipeline Staff is working to form an Editorial Board. If you are interested or have some ideas or opinions concerning the newsletter's content, feature articles or the direction the newsletter should take in future issues, please contact Maureen Sullivan at 592-6144 as soon as possible. Unit reporters are also a valuable tool for collecting news throughout the Department. Anyone interested in regularly reporting for your Unit should contact Maureen.

NEW MANAGER

Mr. Faulkner Edmonds has accepted the position of Manager of the Wastewater Collector System, succeeding Bob Serpente, who left the Water Department on December 12th to join an engineering consulting firm. Faulkner has been with the Water Department for 24 years, working in both the Operation and Engineering Divisions. He started his career in the Survey Unit and has worked in Drainage Information, Collector Systems and the Construction Branch. He most recently served as Chief of the Survey Unit.

WEDDINGS

John Gallagher, NEWPCP, on December 31, 1985.

Kathy Flicker, Design to Cliff Sipes on May 17, 1986.

Mike Cunningham, Design, to Claudia Becker on June 27, 1986.

Kennedy Wilson, Design, to Millie Harris on July 5, 1986.

Steve Furtek, Design, to Andrea Friel on October 11, 1986.

Kate Ellis, Sludge Management, to Daniel Guest on August 30, 1986.

Ouida Ferron, Data Management and Frank Hembry, Plant Maintenance on July 12, 1986.

BIRTHS

Tyrone Maillard, Design, a baby girl, Netyah, on July 10, 1986.

Douglas McCoy, Inlet Cleaning, twin baby boys, Darnell and Daniel, on August 23, 1986.

Art Fagerstrom, NEWPCP, a baby boy, Stephen Lee, on September 20, 1986.

Steve Ballay, Data Management, a baby boy, Stephen Michael, on October 16, 1986.

Lou Francesco, Design, a baby boy, Nicholas, on October 1, 1986.

Robert Lendzinski, SWWPCP, a baby girl, Julia Lynn, on November 6, 1986.

Paul Kopicki, WPAP, a baby boy, Justin, on November 15, 1986.

Frank Kirchoff, Baxter Plant, a baby girl, on October 17, 1986.



Pipeline is published by the Customer Affairs Division for the employees of the Water Department.

Maureen Sullivan Editor
Joanne Dahme Staff Writer