

PIPELINE

Philadelphia Water Department Newsletter

Spring Edition 1988



Bill Laver, SM brick mason, is repairing the invert of the brick-lined sewer with a watertight mortar mix.

The Work ‘Down Under’

When visitors enter the magic kingdom of Disneyworld, they are immediately delighted by the pervasive sense of peace and the aura of fairy tale beauty. The beauty is unique because it is constant, fragile yet untouched by the daily interaction between man and nature.

What the visitor never sees is the vast underground network of operations which protects the beauty above it. All of the functions of this Oz like city are processed beneath its cobbled stone streets. Trash collection,

electrical power, water and sewage systems, security, food delivery – all of these operations are invisible – sheltering the public eye – anchoring the beauty like the strong roots of a gentle tree.

Although Philadelphia can hardly be compared to Disneyworld, our own complex sewage collection system also works invisibly beneath the feet of its citizens. To the undiscerning eye, wastewater flushed from toilets, sinks, washers... simply disappears miraculously down the drain. Stormwater

rushing furiously along street curbs dives into corner inlets, entering a component of the Water Department's vast 3000 mile network of stormwater, sanitary, combined or interceptor lines which carry the wastewater to the Northeast, Southeast or Southwest water pollution control plants.

The goal of Philadelphia's Waste and Stormwater Collection Division has evolved into a mandate to protect our rivers and environment, a far cry from the early 19th century

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The Work "Down Under"

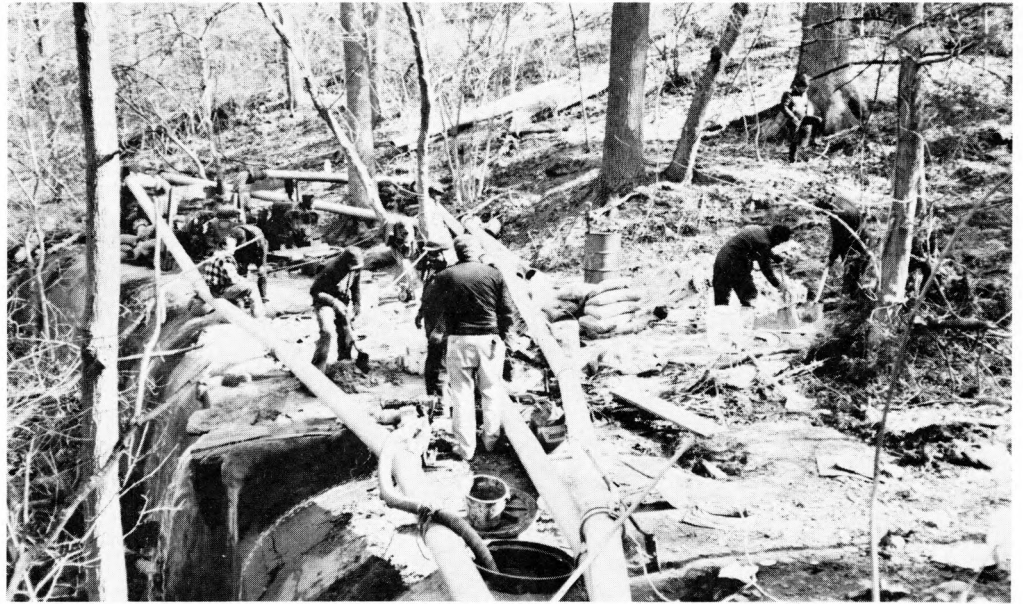
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sewers which simply drained sewage wastes into the Schuylkill and Delaware rivers. As a result of this century old practice, by the 1940's, the quality of both rivers was at their lowest, the pollutants from human wastes and factories effectively killing off fishlife, spoiling the watershed's natural beauty and dangerously contaminating the city's drinking water sources.

With the construction of our primary treatment plants in the 1940's and 50's, the City began "separating" its sanitary and storm-water lines, the new exclusively sanitary lines delivering its flows directly to the treatment plants along with the old "combined" lines, and the exclusively stormwater lines emptying rain runoff into streams and rivers. To prevent the over taxed combined sewers from emptying into waterways, Philadelphia built special conduits to "intercept" this wastewater and divert it to our treatment plants. Presently, approximately 150 miles of interceptors snake along the banks of our rivers and streams, linking old combined sewers to the plants. Only during heavy storms are these interceptors forced to allow flows which it cannot handle into the rivers. This too will change in the near future.

The Waste and Stormwater Collection Division consists of five units: Sewer Maintenance, Inlet Cleaning, Interceptors, Collection System Support and Administration. Faulkner Edmonds, Chief of Waste and Stormwater Collection, summed up the attitude of his Division. "The Collector System is a team. Each unit has a job to keep the Department going. These functions integrate at their perspective levels."

The Sewer Maintenance Unit is one which is known to "dig to new heights." The Unit's job is to keep the 3,000 miles of sewers operating efficiently for the two million people which the system services. Daily maintenance includes flushing the sewers with high pressure hoses if there's a blockage, or clearing the sewer with a mechanical bucket that scrapes up debris as it is pulled back and forth. Smaller sewers are "rodded" with a power rodder similar to a "Roto-Rooter" machine. Sewer examinations necessary for locating leaks or blockages are made by crews who actually walk through the sewers. Smaller diameter sewers are examined by TV, in which a camera is pulled through the sewer on a slide, transmitting the picture to a screen in the TV truck above. Broken or leaking sewers require repairs or replacement, necessitating excavation and sheeting and shoring. The repairs made by Sewer Maintenance extend to manholes, inlets, laterals and drainage right-of-ways.



Sewer Maintenance successfully dried out the damaged section of the combined sewer by sandbagging and pumping. Pumping is continued while concrete patching material is mixed.

The 198 employees in Sewer Maintenance operate from three locations and serve their corresponding districts: the Fox Street headquarters serves the Northwest, North and Center City areas, the West Philadelphia Yard covers West and South Philadelphia and the Lardner's Point Yard serves the Northeast. And because there are so many drainage right-of-ways in the Northeast (streams and natural drainage routes), the Lardner's Point crew takes care of all right-of-ways throughout the City because of their expertise.

In addition to the regular service which Sewer Maintenance provides for our City

every day, it has recently completed some jobs for which the Unit takes special pride. Richard Goode, Assistant Superintendent, was eager to describe some of these feats. One recent job involved an excavation crew which had to dig over 20 feet to reach a damaged sewer pipe. This type of excavation is difficult and time-consuming, requiring extensive sheeting and shoring to protect the repair crews and to prevent a cave-in. Normally this type of work is contracted out. But then, Sewer Maintenance has never been known to reject a challenge.

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Reaching the sewer meant clearing a roadway down the steep hills of Wissahickon Park by Livezey Lane.

‘Barging In’

Pull out the champagne and begin the celebration. The Department’s twin sludge barges are under construction and have already been christened. The U.S. Coast Guard has officially acknowledged the “Recycler” and the “Resource” before they have even touched the water.

The twin barges will be completed in mid-December, 1988, by the Nashville Bridge Company in Nashville, Tennessee. The barges will carry one million gallons of liquid sludge from the loading terminal at the Northeast Plant on the Delaware River to a dewatering facility next to the Southwest Plant.

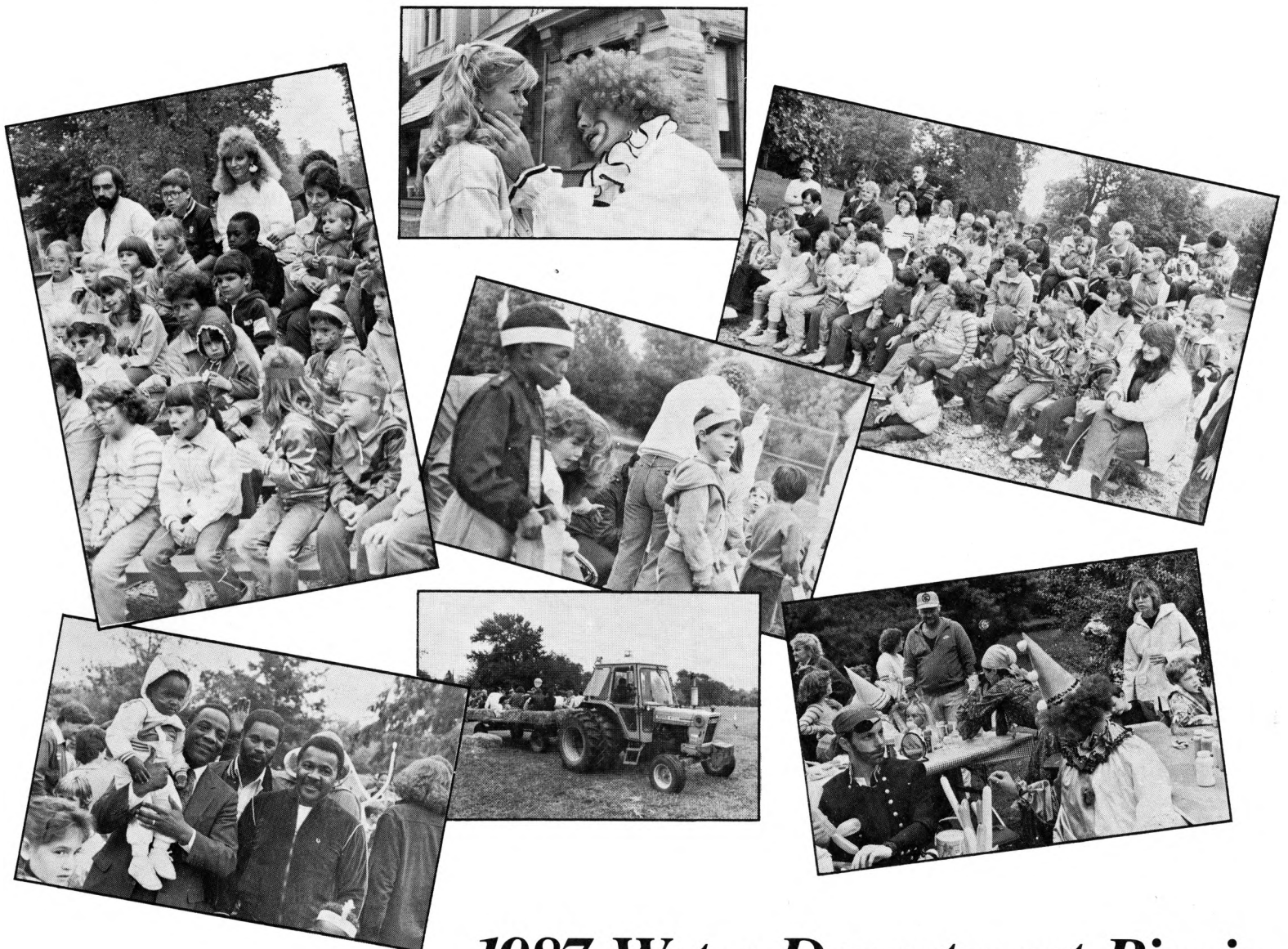
Over a 20-year period, barging will save the Department about \$8 million as opposed to trucking.

Besides saving money, the barges will provide greater operational flexibility and reduce manpower requirements for operations and maintenance. Concerns such as odor, noise, dust, highway traffic and road wear associated with trucking sludge will be eliminated.

The twin barges are made of steel and will be 250 feet long, 50 feet wide and 20 feet deep. Above the water line the barges will

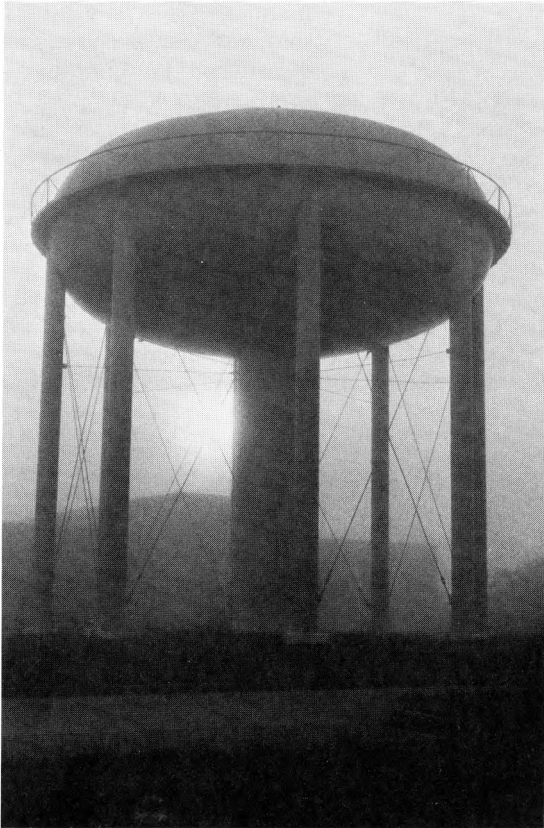
be Ocean Blue in color with homeport, draftmark and official registration in yellow. The barges also feature an ice breaking design and a double-hull construction as a safety net to prevent spillage.

Once the “Recycler” and the “Resource” are completed, the twins will certainly attest to the success of Sludge Management’s sludge handling program. As they plow with pride through the waters of the Delaware and Schuylkill, the “Recycler” and the “Resource” will be nothing to sniff at, despite their cargo.



1987 Water Department Picnic

Photo Finishes



"Wash Water Tank"

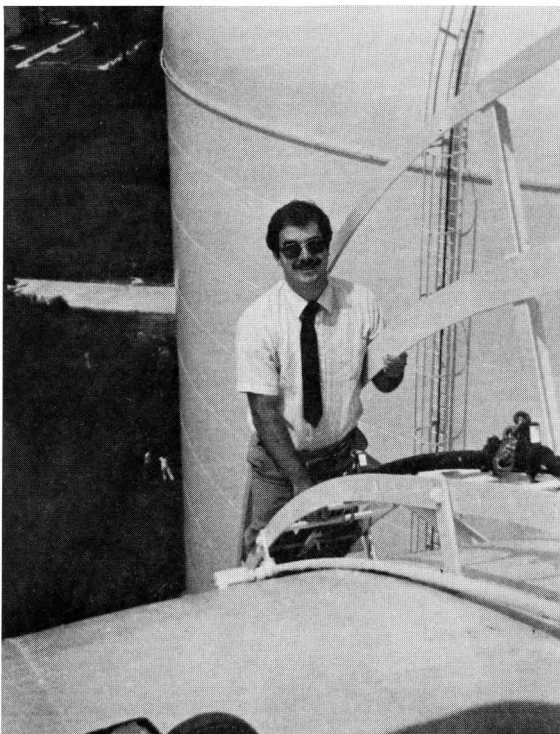
Hyland Butcher



"Wonder Worker"

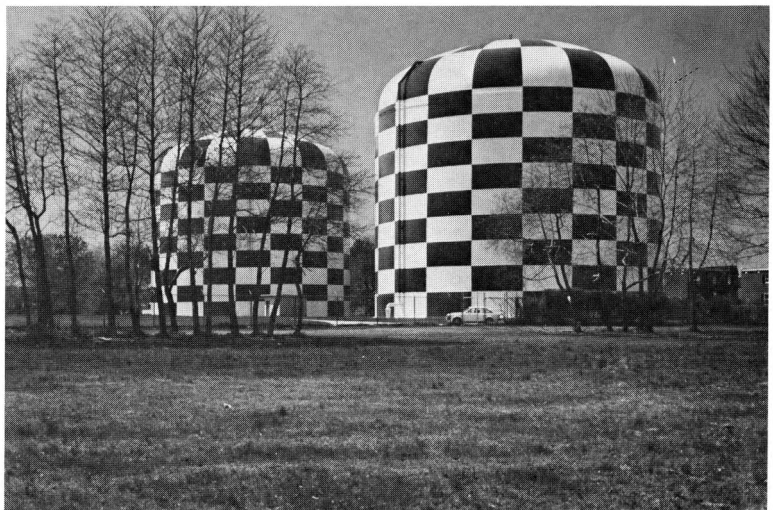
Mae E. Robinson

The winning photographs in the Department's Photo Contest were submitted by Mae E. Robinson of Inlet Cleaning for the "People" category and Hyland Butcher of the Baxter Water Treatment Plant for his beautiful "Facility" shot. Runners up in both categories were submitted by Gary Burlingame of BLS.



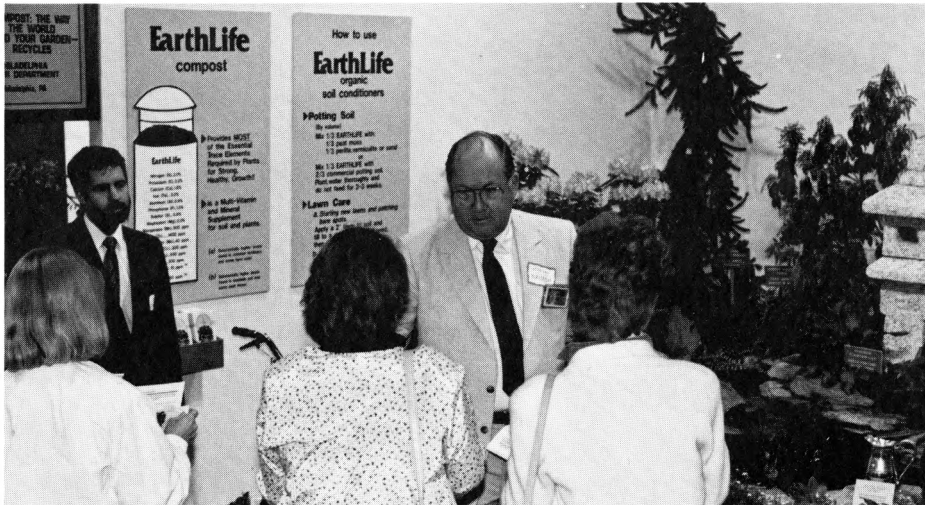
"Staying on Top of Things"

Gary Burlingame



"Thanks for a Nice View"

Gary Burlingame



Volunteers Tom Duncavage and Bill Kavash spreading the word about composting.

Spring Fever

The Water Department's exhibit in the 1988 Flower Show entitled, "Compost: The Way the World - And Your Garden - Recycles," won the Pennsylvania Horticultural Society's Award of Merit for "An Outstanding Exhibit in the Show." The exhibit featured our composted sludge products, Earthlife and Phillymulch, and illustrated how they can be used as organic soil conditioners. Ah, the smell of success.



The Miracle of Sludge

by Nancy Callahan

Last May, the maintenance crew at the Southwest Water Pollution Control Plant (SWWPCP) decided to do something about "The Graveyard," a remnant of a garden located at the entrance to the Administration Building of the SWWPCP. "The Graveyard" tag was a bit morbid, but none the less accurate. A contorted pine tree wept over a tombstone-like slab of granite. The only other vegetation which barely survived in the garden plot was a few sparse ground junipers, some hedge, and weeds - lots of weeds. This sight soon changed, however, under the prompting of Jim Downs, Treatment Plant Operator II, who had recently been delegated the responsibility of grounds maintenance. Jim contacted the Sludge Management Unit's Agronomist staff for suggestions. The suggestion was obvious - USE SLUDGE! IT WILL GROW GREAT PLANTS! And thus the resurrection.

The 13' x 70' graveyard plot was first rototilled to destroy the weeds. Damaged shrubs and junipers were pulled out of the ground. A front end loader then delivered a bucket of screened compost, one of several sludge products produced at the SW plant. The compost was spread and rototilled into the topsoil.

The soil instantly came to life. Hard red clay, which had previously limited plant growth, was mixed with nutrient rich organic



The graveyard crew

sludge, immediately showing promise as good top soil.

A very enthusiastic and energetic team then started to landscape the area. Dave Holland, Jack Berg, Jim Pines, Leroy Harrison (all MEO's), Harry Carter, Lantz Giles, Bernard Tawlings, Marcus Fountain, McLarry Humphrey, Jeff Demby, Ghagathian Elo, Kevin O'Rourke and Nancy Callahan all worked together on the project.

Pennsylvania's state tree, the hemlock, was planted along the back wall, and new junipers were placed in existing beds. Euonymus shrubs, also known as "Burning Bush" for their brilliant red fall foliage, were planted along the edges. Chrysanthemum, Dusty Millers, Ornamental Kale, and Potentill were planted around the granite slab to reincarnate the stone into a flourishing display of texture and color. Under the guidance of McLarry Humphrey, Plant Helper and an experienced carpet layer, fresh green sod was meticulously

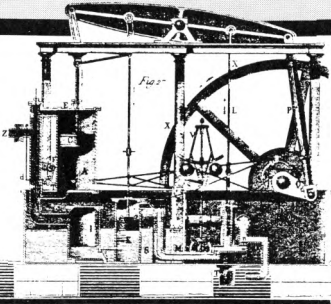
placed in the area. Suddenly, a green aura illuminated from the entrance. The graveyard was but a memory.

And the momentum did not stop here. Six raised concrete flower boxes located around the central fountain court were the next targets. Screened compost was brought in large trash cans and turned under with hand shovels. Chrysanthemums, Marigolds, Dusty Miller, Shasta Daisies, and Pachysandra were planted and prospered. By late spring, beautiful flowers of yellow, white and silver accented the fountain. The color lasted until after the autumn frost.

Jim Downs did not anticipate the full impact of the project at the start. Today, there are no more cynical graveyard jokes. Visitors to the SW plant are greeted by a well-kept, attractive display of ornamental plants which reflect the staff's professionalism. The well maintained landscape is a symbol of the pride and dedication which is prevalent in the Department's personnel. The landscape crew at the plant are excellent examples of this pride. Their work is applauded and appreciated by all associated with the plant.

This spring includes plans to renovate other areas of the SW Plant. The plan includes the use of sludge products. Sludge will be used for preparing annual and perennial flower beds, rejuvenating turf grass, planting trees and shrubs, and mulching to keep weeds down.

Other department facilities are encouraged to follow this example. Suggestions, consultations, and assistance are available to all facilities who would like to start even the smallest landscaping project. Call the Sludge Management Unit Agronomic staff at 592-6246.



WHAT'S PUMPING



This oversized check for one year of free cable was presented to Bob Edmonds and his wife, the first customers of Wade Cablevision.

It's Showtime

Bob Edmonds of Finance found himself to be the lucky first customer of Wade Cablevision, the only minority-owned cable company in Philadelphia. On December 15th, at 1:30 p.m., Bob kindly invited Mayor Wilson Goode, Councilman Lucien Blackwell, James N. Wade, Chairman of Wade Cablevision, and other representatives from Wade Cablevision and the media into his home in West Philadelphia for the official "turn-on" ceremony. As a gesture of thanks to Bob for offering his home for this grand

occasion, Wade awarded Bob with a free 25-inch color television and a year's free subscription to over 65 cable channels, including Family Entertainment, Sports, Music, Movies, News and Information, Home Shopping, Community Affairs and Religious programming.

In the future, Bob wishes to be addressed as Bob "It's Showtime" Edmonds. So, if you want to catch a basketball game, just go to Bob's. ☰

Money Making Ideas

The Employee Suggestion Committee recently adopted three ideas that will help the Department save money and improve operations. Department employees who created the ideas received cash awards.

Joseph M. Farrell of the Baxter Water Treatment Plant was awarded \$80.00 for his idea of installing street gratings and \$50.00 for his suggestion to install low voltage floodlights that would illuminate the gardens at the Baxter Water Treatment Plant.

Third money making idea came from Curtis King of Sewer Maintenance who received \$90.00 for his suggestion to drill holes into shovels used in muddy areas. Curtis was quite surprised when his idea was accepted and put into use. He said, "The Employee Suggestion Program helps expand your knowledge by helping others. It feels good to say, look that's my invention."

If you have any money making ideas, call 592-6169 for more information or write to: Employee Suggestion Program, ARA Tower, 5th Floor. ☰

Agronomy Unit Grows

This past September the Department acquired a new member in its Sludge Management Unit. Damali Mason was brought on board as a new agronomist, joining the present team of Ken Sarkis and Nancy Callahan.

Damali's career background is quite interesting, if not unique. Born and raised in Philadelphia, she first became interested in agriculture in high school, after viewing a film about starving people in an underdeveloped country in Africa. She was so moved by the film that Damali decided that she would learn to feed the world. Damali enrolled in the Delaware Valley College of Science and Agriculture to gain knowledge and experience in her chosen field of study - Agronomy. As commencement neared, she tried to enlist in the Peace Corps

to make her dream a reality; but this venture was to no avail. The Peace Corps rejected her application because she was a single parent of two young children who were not allowed to accompany her on her two year mission. Needless to say, Damali was very disappointed. But, after graduating Magna Cum Laude with a Bachelor of Science Degree in Agronomy, Damali decided to use the knowledge and skills that she acquired in school and part-time employment to protect the environment where she lives. Damali was hired by the United States Department of Agriculture's Soil Conservation Service, where she was employed for the past eight years.

Besides the science of agriculture, Damali's other interests include traveling to foreign countries and theatre. She is presently starring in a



local Dinner-Theatre musical revue of "Guys and Dolls" and appears in various television commercials and industrial films.

Presently involved in overseeing compost application projects in New Jersey, Damali feels that the Water Department adds a new dimension to her very promising and exciting career as an agronomist.

Sludge Management is delighted to have such a diversified employee on their team.

Damali, Welcome Aboard!! ☰

Employee of the Year

After being chosen as the "City Employee of the Month" in April '87, Water Department Scientific Application System Analyst, Mike Pence, soon topped that honor by being awarded "Employee of the Year," on October 21st, among 35 other city nominees.

Mike was chosen from this elite group because of his substantial contributions to the success of the Department and to the vitality of the community, despite physical handicaps. Mike received a \$2,000 cash prize, a William Penn desk set and a complimentary weekend at the Adams Mark Hotel.

Mike provides systems analysis and mathematical support to the engineering divisions of the Water Department, while lending his expertise to other City departments such as the Fire Department and the Managing Director's Office. Mike holds a master's degree in math and is presently pursuing a degree in chemistry at Drexel.

Besides his professional accomplishments, Mike counsels handicapped students at the

University of Pennsylvania Hospital, providing data processing training to disabled adults as well. The program has placed many of its graduates into competitive computer related careers. More recently, Mike has become involved with the Philadelphia YMCA's Chapter II reading program, volunteering two nights a week to help non-reading adults improve their skills.

Even cynical Inquirer columnist Steve Lopez had a tough time finding fault with Mike. Lopez, who is infamous for his caricaturing of city officials and employees, attended Mike's party given by his fellow Research and Planning buddies, and was surprised but pleased to find that Mike was everything that he was cranked up to be. Mike's attitude towards his physical handicap seems to be – what handicap? This attitude has enhanced his remarkable prowess in treating the rest of humanity with sincere kindness and concern. Such selflessness is surely a rare attribute. ☐

The Work "Down Under"

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Another "great" in Sewer Maintenance history occurred when Norman Lofton, Crew Chief Sewer Inspector, George Palmer and Walter Lacken, both Sewer Inspectors, broke a Department record in their examination of the Dobson's Run storm sewer. The sewer, which is 6,000 feet long, extending from Wissahickon Drive to Kelly Drive, was the longest length of sewer to be "walked" at one time. And it took them a record time of two hours and 30 minutes to inspect it, despite complications such as having to bend over for more than 1,600 feet when in parts the sewer decreased to four or five feet in diameter. Also, the team had to "straddle" walk a couple of hundred feet in places where the invert or bottom of the sewer had been washed out. "Although these type of stories don't make headlines," Goode said, "the guys take great pride in their work. The public is not aware of the work we do. Only when their water is cut off or when their toilets back up," he laughed, "only *then* do they think about us and give us a call."

What is the job like for people who work for Sewer Maintenance? To answer and check complaints, crews must enter sewers and manholes that are considered "confined"

spaces and could be dangerous if the proper precautions are not taken. Safety training is highly emphasized. The crews use gas detectors to check for dangerous gases that may be escaping the sewer. Once they are sure that the atmosphere is safe to enter, they are harnessed up in a body boot, jacket, gloves, helmet and attached to a rope to be held by the crew above, not unlike an astronaut to his capsule. They walk the sewer with a high beam light to search the interior of the sewer for cracks or leaks. And there is always a voice contact who serves as an emergency back-up person with an oxygen tank and equipment for rescue.

Sewer Maintenance also has a night crew which responds to emergencies and finishes jobs that the day crew did not complete. In addition to these crews, the rodent control division, which also works in conjunction with the Health Department, helps to eliminate rats from the drainage system by pinpointing the locations where rats enter or exit the sewers, and then attacks them accordingly.

The Pipeline's next issue will feature the remaining units of the Waste and Stormwater Collection Division. ☐

Letters From our Customers

Dear Councilman O'Neil:

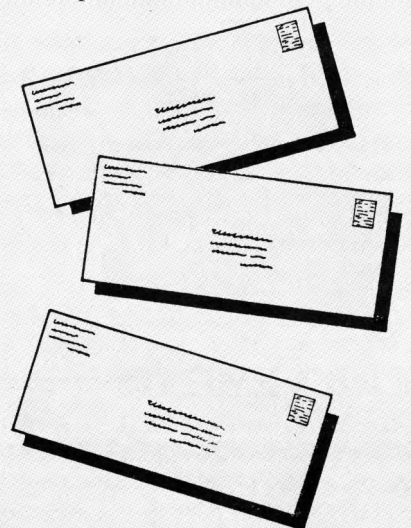
My wife and I wish to thank you and John J. Craney, Chief of Customer Service in the Philadelphia Water Department, for your assistance in regards to the recent sewage back-up we and our neighbors experienced in our homes on Endicott St.

Mr. Craney expressed his concern for our problem by visiting our home after business hours. In addition, he telephoned twice a week to inquire about the status of the back-up. We requested that a steel sewage cover be placed over the manhole in the vicinity and Mr. Craney saw to it that this was accomplished.

We appreciate your cooperation and commend Mr. Craney for the competent services rendered by the Philadelphia Water Department.

Sincerely,

DAVID W. H.
Endicott St.
Philadelphia



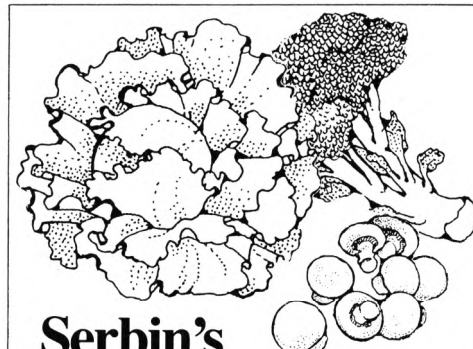
Water Department Highlights

Annual Safety Luncheon

The annual Safety Incentives awards luncheon will be held on June 10 in the 5th floor Conference Room of ARA Tower. Incentive prizes will be drawn at random for employees chosen from the no lost-time injuries or preventable vehicle accidents list for '86 and '87. Candidates for the prizes will receive certificates some time in May, stating the nature of the safety accomplishment. Those attending the luncheon will have been selected at random from the eligible list of 34 higher risk units. These candidates will join the Commissioner and the Safety Office staff for a deli lunch and the savings bond drawing. As is the custom, in addition to the savings bonds (top prize \$1,000), an additional 150 smaller prizes (compact flashlights) will be won by Department employees who qualify.

Starting in November, asbestos was removed from the Northeast Plant. Employees were informed of the methods of removal and the safety precautions which were strictly enforced. The job was completed by the middle of December.

The Water Department's training consultant, Metcalf and Eddy, began a Computer Based Interactive Video Odor Control Training on December 14, 1987 for employees at the Northeast, Southwest and Southeast Water Pollution Control Plants. Through the use of computers, engineers and supervisors learn how to use the new process equipment. The training is also a test program for Metcalf and Eddy software.



Serbin's Salad Service

In light of the recent emphasis on health foods and dieting, Brian Serbin, BLS, has started a lunchtime salad service at Baxter Plant for all interested parties. For a modest fee of one dollar (all you can eat), Brian prepares salads using only the freshest vegetables and ingredients available. The benefits of participating in "Serbin's Salad Service" have resulted in healthier, leaner, happier and more productive individuals. (Management, take note!).

NEW BABIES

Walter Bracken of Automotive Maintenance, a boy, Kevin Thomas, 8 lbs., 7 oz. on November 14, 1987.

Leroy McLoughlin, of Automotive Maintenance, a girl, Kelly Ann, 8 lbs., 7 oz. on November 28, 1987.

Sherman Harris, of Southwest Water Pollution Control Plant, a boy, Sherman Alexander Jr., 7 lbs., 15 oz. on August 18, 1987.

Rick Stasiorowski, of Northeast Water Pollution Control Plant, a girl, Laura, 6 lbs., 15 oz. on April 16, 1987.

Lou Francesco, of Design Branch, a girl, Jillian Marie, 8 lbs., 7 oz. on November 2, 1987.

Joanne Dahme, of Customer Affairs, a boy, William Edward, 6 lbs., 11 oz. on December 25, 1987.

ACHIEVEMENTS

Francis Costello, Ph.D., Analytical Chemist II, of the Materials Testing Lab, and members of the Temple and Penn State Universities' faculties, published a paper in the recent edition of the Journal of Organic Chemistry.

WEDDING BELLS

Mark Mills of Aquatic Biology, Wastes Organics Lab to Lori Stieffenhofer, formerly of the Safety Office, on March 5, 1988.

DEATHS

Cleo Williams, Inlet Cleaning, died on Christmas day, 1987. She was the Department's first and only female Heavy Equipment Operator. Ms. Williams was promoted to this position in November, 1982. Her supervisor Leroy Kelly said, "She did not ask for any special privileges. When Cleo did a job, it was well done." It was only this summer when a customer wrote in saying Ms. Williams was to be commended for her swift and thorough work. A lot of people had great admiration for Ms. Williams.

George Laigaie, an employee for the Department since 1985, died January 18th, 1988. Mr. Laigaie, who worked in Sludge Management, transferred from the Southwest Water Pollution Control Plant as an Instrumentation Technician. His son, Timothy J. Laigaie of the Southwest Water Pollution Control Plant said, "Although he only worked for the Water Department for 2 1/2 years, he

brought with him a vast knowledge and understanding of instrumentation which he had accumulated in over 30 years in the trade." He will be sadly missed by his family and by his friends at the Southwest and SPDC plants.

Willis E. Hackett of Emergency Support died January 8, 1988. He worked 25 years for the Department.

Joseph Forgas of Distribution died December 31, 1987. He worked 34 years for the Department.

Thomas J. Fitzgerald of Sewer Maintenance died October 30, 1987. He worked 3 years for the Department.

PIPELINE NEWSLETTER

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

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