



Utilities Connection



November 2001

Utilities Data from October 2001

City of Melbourne Utilities Department

Billing operation keeps City's utility systems running smoothly

Spending about an hour in the City's utility billing offices is a sure way to get a feel for this fast-paced, hectic operation. The 18-member staff here handles a huge volume of work.

They process more than 49,000 utility bills and handle about 9,000 calls from customers each month; collect the payments at the counter, the drive-up window and by mail; issue work orders for customer service workers out in the field; establish new accounts; answer incoming calls to City Hall; process mail to the City; and the list goes on.

Ingrid Gaskin, Customer Service Manager, has been in the position for three years. Before that she served nine years as the City's Grants Administrator. While she acknowledges it is often a whirlwind atmosphere, it is the perfect fit for her and a common theme shared by her staff.

"I love it," Gaskin said. "I never leave here stressed out. I love helping people and I look forward to coming to work in the morning." Gaskin explained that when you are dealing with a customer service operation, each issue and problem is different. "They share their personal issues with you. It all boils down to a judgement call based on the facts you have," she said.



Lynn Maffie goes through interoffice mail. The huge blue book is an edit book for her area. Debbie Bearden, who sits behind her, is responsible for the beachside accounts.

many other variables on the edit, which is the print-out they look at before they generate the bills.

When there are problems or issues they will generate



Brianna Smith handles a recent telephone inquiry from a customer.

work orders for the customer service field worker assigned to their billing area. "Some days I'll send Alex (Rodriguez) out on 25 or 30 calls," Maffie explained.

Brianna Smith, an accounts clerk who handles the water billing for all of southern and central Melbourne,

says she likes her job because she likes working with numbers. "It's a challenge. I love it here," she said.

A new wrinkle to the operation has been added due to the recent terrorist attacks. A temporary mail processing area, separate from the other operations, has been put together with a more permanent area now being made ready.

Senior Accounts Clerk Janice Dudley is responsible for going through all the City Hall mail each morning. Wearing gloves, she puts any suspicious mail into a plastic bag. Gaskin then makes the decision whether it seems okay or if the police should be notified. "I had five large trays of mail to sort through this morning, which is typical," Dudley said.

She is also responsible for preparing bank deposits, which the police transport to the bank, and for making sure the registers are balanced.

Systems Administrator Wayne Rosser has been kept busy with the new automatic debit system. It started the last billing cycle in May and as of October, 1,929, or about four percent of the utilities' customers were billed by automatic debit. "It has been growing quite a bit every month," Rosser noted.

During this current fiscal year, he will be busy working on a new phone system and the new bills, which will be reformatted and mailed in envelopes with a return mailing envelope inside.

All 18 of these dedicated employees work together to ensure the myriad of tasks are accomplished each day as they adjust to new ways of doing things.

Utilities Connection - Nov. 2001

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Utilities Data from Oct. 2001

Monthly Water Usage and Raw/Finished Water Quality Statistics

Water Usage

- ◆ Water pumped to service: 449,786,000 gallons or 14.509 MGD average
- ◆ Maximum finished water pumped to service: 15.957 on Oct. 19, 2001
- ◆ Water billed: 366,363,300 gallons
- ◆ Fire hydrant flushing: 19,736,500 gallons
- ◆ Fire Department water usage: 74,900 gallons
- ◆ Brevard County water usage – sewer flushing: 17,900 gallons
- ◆ Flushing and testing new water mains: 128,903 gallons
- ◆ Chlorides: 56 mg/L
- ◆ Color: 297
- ◆ Total dissolved solids (TDS): 233 mg/L

Well water quality

- ◆ pH: 7.7
- ◆ Alkalinity: 120 mg/L
- ◆ Total hardness: 603 mg/L
- ◆ Chlorides: 729 mg/L
- ◆ Color: 6
- ◆ TDS: 1,513 mg/L

Finished water quality - pumped to service

- ◆ pH: 7.7
- ◆ Alkalinity: 120 mg/L
- ◆ Total hardness: 145 mg/L
- ◆ Chlorides: 59 mg/L
- ◆ Color: 4
- ◆ Total dissolved solids (TDS): 269 mg/L

Water Quality Statistics

Lake water quality

- ◆ pH: 7.6
- ◆ Alkalinity: 55 mg/L
- ◆ Total hardness: 95 mg/L

Major pipe tie-in critical to new water plant distribution

The water main tie-in was performed overnight on October 27. Work was performed at this time to take advantage of minimal consumption. Following is a pictorial diary of this important and major project that is leading to the opening of the plant, expected in January.



The contractor uses concrete saws to cut portions of the existing 42" high-service pump feed pipeline to facilitate removal. New piping and fittings can then be installed.

New piping will allow blended waters of the Actiflo and reverse osmosis process to be routed to the 4.0 MG groundwater storage tank at the RO water treatment plant. The water will then flow by gravity to the 4.0 MG ground storage tank at the surface water treatment plant before being sent to the distribution system. This maximizes the contact time for disinfection and allows the City to meet new rules and regulations which go into effect on Dec. 31, 2001.



The existing piping is prestressed concrete cylinder pipe. Its construction consists of thin-walled steel pipe within a reinforced concrete shell. This requires cutting of the concrete and steel in order to affect removal.



Due to excessive weight of the 42" pipe and its protective encasement, both a 70-ton crane and hydraulic track hoe had to be used to remove it from the excavation.



This photo shows the final tie-in of the new process piping being completed. The process took from approximately 10:45 p.m. to midday the next day.

Utilities Connection - Nov. 2001

www.melbourneflorida.org

Utilities Data from Oct. 2001

Wastewater Treatment Operational Summary and Reuse Statistics

D.B. Lee WWTP

- ◆ Treated this month: 149.15 MG
- ◆ Treated daily: 4.81 MGD
- ◆ Reuse distribution — total month flow: 26.20 MG
- ◆ Reuse average daily flow: 0.85 MGD
- ◆ Reuse number of days run: 31
- ◆ Plant efficiency, BOD removal: 97.07%
- ◆ Committed capacity: 0.191 MGD
- ◆ Capacity available for development: 0.434 MGD
(Based on 12-month average daily flow)

Grant St. WWTP

- ◆ Treated this month: 115.75 MG
- ◆ Treated daily: 3.73 MGD
- ◆ Reuse distribution — total month flow: 5.22 MG
- ◆ Reuse average daily flow: 0.17 MGD
- ◆ Reuse number of days run: 15
- ◆ Plant efficiency, BOD removal: 97.68%
- ◆ Committed capacity: 0.365 MGD
- ◆ Capacity available for development: 1.510 MGD
(Based on 12-month average daily flow)

Sewer line repair method saves money and inconvenience to drivers

In the past year, Melbourne residents, probably without even noticing it, have been a lot less inconvenienced by sewer line point repairs. A new system has been put into use in Melbourne that eliminates the need for digging up the roads when these repairs are necessary. This new way is not only easier for drivers, but it costs a whole lot less.

"Before it would have taken about two days," says maintenance technician Matt Simon. "We would dig up the line, have to deal with groundwater issues and safety issues, and would have to close the road for two days and inconvenience drivers. Now it only takes three to four hours, depending on how bad the break is and how far up the line it is."

A resin-impregnated fiberglass liner is positioned inside the pipe and inflated with air. Then it cures for two hours. Since June of 2000, Simon's three-man crew, who all received training and are now certified in the process, has used the liners 13 times to repair sewer lines.

According to Tom Hogeland, superintendent of utilities operations, the cost savings is dramatic. He estimates that in the past year and a half it has saved the City tens of thousands of dollars and eliminated the inconvenience to residents.



Tim Smith (front) and Matt Simon guide the fiberglass liner into the sewer manhole on Sea Grape Drive, a dirt road scheduled for paving in the next few months. Joe Skeen is inside the manhole to guide the liner into the sewer pipe to make the point repair. Next, the liner is inflated and heated.

nience to residents.

"In a residential area, if we had to do it the conventional way, it would have cost 5-10 thousand dollars. Using this trenchless point repair method, the repair costs about \$2,000. This cost significantly increases when a major intersection is involved. That would have cost \$10-20 thousand, because we would be dealing with traffic and other issues. Anytime we can do trenchless instead of digging the street the City comes out better financially and public relations wise."

Streets and Stormwater Management Monthly Summary

- ◆ Daytime street sweeper — hours run: 117.25
Cubic yards of material removed: 113.25
- ◆ Nighttime street sweeper — hours run: 92.1
Cubic yards of material removed: 143
- ◆ Asphalt repairs made: 30
- ◆ Tons of asphalt used: 13.75
- ◆ Feet of canals cleaned mechanically: 9,225
- ◆ Acres treated through aquatic spraying: 22
- ◆ Feet of storm drain pipe repaired: N/A
- ◆ Concrete repairs: 12
- ◆ Cubic yards of concrete used: 44

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www.melbourneflorida.org

Utilities Data from Oct. 2001

Surface water treatment plant improvement project update



The photo captures the interior of the chlorine and ammonia building showing the piping associated with the air ventilation and chlorine scrubbing systems. These systems are needed in the unlikely event of a chlorine gas release. During a chlorine leak, dampers will shut off the bottom louvers, air will be pulled through the top louvers and then exhausted at floor level through the fiberglass reinforced plastic ductwork.

October Highlights

The level of Lake Washington decreased during the past month. At the end of October the lake level was 15.87 feet above sea level. Water quality remains good.

The D.B. Lee Wastewater Treatment Plant received 5.5 inches of rain in October with seven days of rain. The Grant Street Wastewater Treatment Plant received 8.1 inches of rain in 14 days.

A total of 31.42 million gallons of reclaimed water was used during October for irrigation. The north service area system ran for 31 days and used 26.20 million gallons. The Melbourne Golf Course irrigated 15 days and used 5.22 million gallons. These figures represented 12 percent of total 12 percent of total plant flows for the month.

“Utilities Connection” wins award

“Utilities Connection” won the third-place Florida Government Communicators Association Excellence in Government Communications Crystal Award in the Public Information on a Shoestring category. The awards program, held Nov. 7 in Ft. Lauderdale, had 149 entries, the most since the program began 12 years ago.

What’s Done, What’s Underway and What’s Coming Up

Water Projects

Under Construction:

- ◆ Surface water treatment plant improvements, \$23.4 million
- ◆ Utility relocation associated with U.S. 1 widening, \$1,060,000
- ◆ Dairy Road water line, \$354,800
- ◆ Well flushing lines at the RO WTP, \$120,300

Recently Awarded:

- ◆ Sarno Service Road waterline replacement, \$39,000
- ◆ Painting/rehabilitation of Oak Street elevated water tank, \$101,900

Under Design or Ready for Bid:

- ◆ Aquifer exemption - RO potable water byproduct disposal at D.B. Lee WWTP injection well system

- ◆ Lake Washington waterline extension
- ◆ U.S. 1 utility relocations — Post Road to Pineda Causeway

Wastewater Projects

Under Construction:

- ◆ D.B. Lee & Grant St. sludge facility improvements, \$62,568
- ◆ Phase III improvements at D.B. Lee & Grant St. WWT Plants, \$15,587,000

Under Design or Ready for Bid:

- ◆ Lift Station No. 15 replacement
- ◆ Trickling filter upgrade at Grant Street WWT Plant

Streets & Stormwater Projects

Under Construction:

Dawn Drive, \$109,650

Recently Awarded:

- ◆ Stormwater Master Plan, \$93,770
- ◆ Pineapple Avenue Sidewalk, \$313,906

Under Design or Ready for Bid:

- ◆ Paving of miscellaneous streets
- ◆ Dove Street paving
- ◆ Rio Lindo dredging -- surveying and preliminary engineering
- ◆ Garfield Street stormwater outfall relocation

For more information about this report, please contact the Melbourne Utilities Administration Department at (321) 674-5761 or send an e-mail to utilitiesadmin@melbourneflorida.org