



PW/Utilities

Connection



January 2004

Utilities Data from Dec. 2003

City of Melbourne Public Works & Utilities Department

Facilities Operations improves and updates City Hall offices

If you have been in Melbourne's City Hall recently you will have noticed many changes. The look is brighter and more efficient. New offices have been developed, other office space has been remodeled, flooring has been improved, an exit has been realigned, and hallways have been updated.

While the look is better, safety and efficiency have been increased at the same time. Since City Hall was constructed 40 years ago, plumbing and electrical codes have changed. The

improvements have also included updated wiring, plumbing and air duct work to bring them to current standards.

Besides these City Hall improvements, the division most recently constructed four individual office spaces out of one large open space. These private offices are an average size of 10 feet by 9 feet and house staff from the Accounting Division.

This office space renovation project, along with the other City Hall improvements, have been performed in-house by the City's Facilities Operations Division at a significant cost savings compared to the work being contracted out.

The most recent office space renovations came to \$28.21 per square foot. According to the division's superintendent, Marv Sharp, if the work had been contracted out, the price would have been between \$37

and \$41 per square foot.

The new offices are providing many benefits. Privacy is gained for staff members who work on confidential issues and interruptions are minimized, but in addition, environmental efficiency is increased.

"We installed occupant sensor infrared lighting controls that sense temperature and movement," Sharp explained. "If the occupant leaves the office the lights will turn off automatically after 10 minutes. They turn back on automatically when someone enters the room. In addition, each office is equipped with individual temperature controls. Both of these items are cutting down on energy costs."

The division designed the new office space using computer-aided design software, which also provided a savings.

"The design is usually 12 percent of the cost of a remodeling project, so we didn't have that expense either," Sharp said



Performing prep work for the project are Don DeLoach (back on ladder), George Wood (front on ladder), and Dave Lindsay.



Electricians Greg Valenti (left) and Don DeLoach perform occupant safety evaluations.

The division follows the procedures required by the City's Building Department, as any outside contractor would be required to meet. Permits were secured and required inspections were performed throughout the project.

"The Facilities Operations staff

has done a great job with this project and with so many other improvements they have been doing at City Hall," said Public Works & Utilities Director Bob Klapproth. "And they have done it in a very cost-effective way."

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Public Works/Utilities Data from Dec. 2003

Monthly Water Usage and Raw/Finished Water Quality Statistics

Water Usage

- ◆ Water pumped to service: 418,799,000 gallons or 13.510 MGD average
- ◆ Maximum finished water pumped to service: 16.085 MGD on Dec. 1, 2003
- ◆ Water billed: 400,104,900 gallons
- ◆ Fire hydrant flushing: 16,263,120 gallons
- ◆ Fire Department water usage: 41,250 gallons
- ◆ Brevard County water usage – sewer flushing: 7,200 gallons
- ◆ Flushing and testing new water mains: 4,891 gallons
- ◆ Committed capacity: 1.2109 MGD
- ◆ Capacity available for development: 10.4419 MGD (Based on 12-month average daily flow)

Water Quality Statistics

Lake water quality

- ◆ pH: 7.7
- ◆ Alkalinity: 63 mg/L
- ◆ Total hardness: 122 mg/L
- ◆ Chlorides: 80 mg/L
- ◆ Color: 225
- ◆ Total dissolved solids (TDS): 230 mg/L

Well water quality

- ◆ pH: 7.6
- ◆ Alkalinity: 119 mg/L
- ◆ Total hardness: 645 mg/L
- ◆ Chlorides: 782 mg/L
- ◆ Color: 6
- ◆ TDS: 1,558 mg/L

Finished water quality - pumped to service

- ◆ pH: 8.1
- ◆ Alkalinity: 33 mg/L
- ◆ Total hardness: 91 mg/L
- ◆ Chlorides: 70 mg/L
- ◆ Color: 4
- ◆ Total dissolved solids (TDS): 202 mg/L

Joint effort provides for Rio Lindo canal dredging project

Boaters in the Rio Lindo area on the beachside will soon be enjoying deeper water which will make navigation much easier. The project will also reduce a potential safety hazard of somebody falling in and getting stuck in the muck.

A project that is now underway involves dredging the canals to a depth of five feet by removing approximately 13,000 cubic yards of material. The muck is being transported by truck to a spoil site on the City's Grant Street Wastewater Treatment Plant property.

The dredging must be completed by March 31 and a manatee observer must be present while the work is being performed.

Of the 47 lots abutting the canal, 37 are located in the



Muck being dredged from the Rio Lindo canal.

City and 10 are in unincorporated Brevard County.

With the approval of approximately 75 percent of the property owners abutting the canal in place, the county established a Municipal Services Benefit Unit (MSBU). In this way, the property owners can be assessed for a portion of the dredging cost. The estimated assessment is \$8,562.92.

Shaw Environmental, Inc. of Jacksonville is the contractor for the

project. The contract price is \$457,289. The County will reimburse \$393,985 to the City. The difference between the MSBU funding and the contract amount is \$64,004. This funding plus contingency funding will be provided from savings in projects that were funded by City local option gas tax revenues in the amount of \$73,000.

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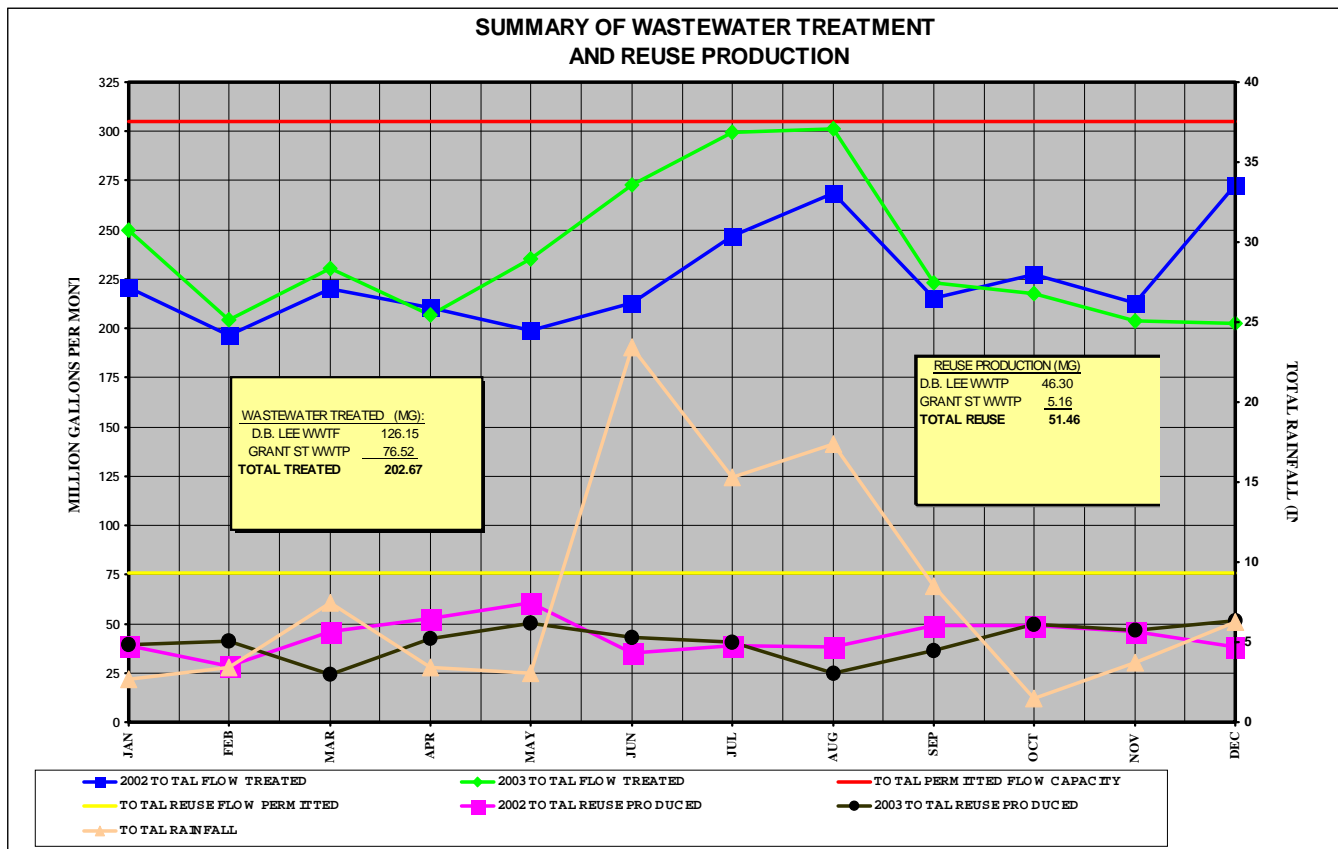
Wastewater Treatment Operational Summary and Reuse Statistics

D.B. Lee WWTP

- ◆ Treated this month: 126.15 MG
- ◆ Treated daily: 4.07 MGD
- ◆ Reuse production — total month flow: 46.30 MG
- ◆ Reuse average daily flow: 1.49 MGD
- ◆ Reuse number of days run: 29
- ◆ Plant efficiency, BOD removal: 98.60%
- ◆ Committed capacity: 0.6204 MGD
- ◆ Capacity available for development: 1.1606 MGD
(Based on 12-month average daily flow)

Grant St. WWTP

- ◆ Treated this month: 76.52 MG
- ◆ Treated daily: 2.47 MGD
- ◆ Reuse production — total month flow: 5.16 MG
- ◆ Reuse average daily flow: 0.17 MGD
- ◆ Reuse number of days run: 19
- ◆ Plant efficiency, BOD removal: 98.23%
- ◆ Committed capacity: 0.4091 MGD
- ◆ Capacity available for development: 1.9326 MGD
(Based on 12-month average daily flow)



Streets and Stormwater Management Monthly Summary

- ◆ Daytime street sweeper — hours run: 342
Cubic yards of material removed: 128
- ◆ Nighttime street sweeper — hours run: 107
Cubic yards of material removed: 88
- ◆ Asphalt repairs made: 37
- ◆ Tons of asphalt used: 57.5
- ◆ Feet of canals cleaned mechanically: 3,965
- ◆ Acres treated through aquatic spraying: 0
- ◆ Concrete repairs: 26
- ◆ Cubic yards of concrete used: 32.5

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December Highlights

The level of Lake Washington decreased very slightly during December. At the end of the month, the lake level was 14.07 feet above sea level. That compares to the end of November reading of 14.09 feet above sea level. Water quality remains good.

The D.B. Lee Wastewater Treatment Plant

recorded 3.75 inches of rain during five days in December. The Grant Street Wastewater Treatment Plant received 2.53 inches of rain over seven days during the month.

A total of 51.46 million gallons of reclaimed water was used for irrigation during December. This represents 25 percent of total plant flows for the month.

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

Water Projects

Under Construction:

- ◆ U.S. 1 utility relocations associated with U.S. 1 widening — Post Road north to Pineda Causeway, \$940,000
- ◆ U.S. 1 utility relocations associated with U.S. 1 widening — Post Road south to Aurora Road, \$1,060,000

- ◆ Shut-off valves for elevated storage tanks, \$159,777
- ◆ Croton Road utility relocation associated with widening, \$593,257

- ◆ Trailer Haven waterline upgrades, \$195,905
- ◆ Wickham Road waterline replacement from SR 192 to Nasa Blvd., \$1,257,000
- ◆ Sludge handling facility motor control center and belt filter press control cabinets, \$175,685

Under Design or in Bid Process:

- ◆ Phase II surface water treatment plant improvements
- ◆ Utility relocation in association with NASA Boulevard realignment at Wickham Road
- ◆ Waterline upgrade, Olde Eau

Gallie

- ◆ Painting various structures at Lake Washington Water Treatment Plant
- ◆ Chemical feed upgrades at Canova Beach Booster Station
- ◆ Hibiscus booster station electric shut-off valves
- ◆ Wickham Road ground storage tank and booster pump station
- ◆ Electrical upgrades at Lake Washington Water Treatment Plant

Wastewater Projects

Under Construction:

- ◆ Sewer line cleaning, \$120,000
- ◆ Lift Station 80 replacement—East Bay Plantation, \$62,300
- ◆ Sewer manhole rehabilitation, \$14,500
- ◆ Large (36") diameter sewer rehabilitation, \$669,465
- ◆ Mechanical Integrity Testing at Grant Street WWTF, \$65,837

Under Design or in Bid Process:

- ◆ Lift Station 24 replacement design
- ◆ New monitoring network for reuse system at DB Lee WWTP

- ◆ Demolition of old treatment units at D.B. Lee WWTF

Streets & Stormwater Projects

Under Construction:

- ◆ Rio Lindo canal dredging, \$457,289

Under Design or in Bid Process:

- ◆ Hoag Avenue paving and drainage improvements
- ◆ Eber Road widening from Babcock Street to Dairy Road
- ◆ Sarno Road/Bell Street drainage improvements
- ◆ Upgrade of stormwater outfalls along Charles Dr./Almar Subdivision
- ◆ Upgrade of existing culvert crossing under Pirate Lane
- ◆ Swift Street stormwater improvements
- ◆ Babcock Street widening
- ◆ Baffle box at Cliff Creek

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