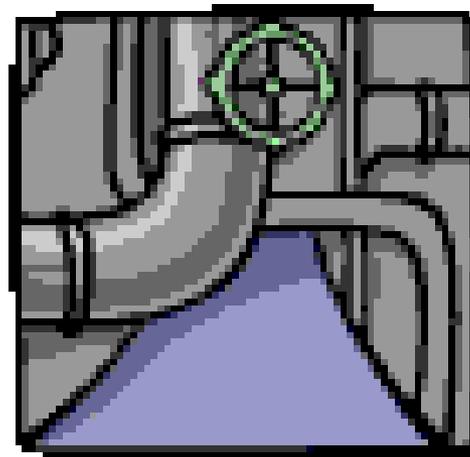


Marco Island Water & Sewer Department FY15 Budget Workshop



June 19, 2014

FY 15 Operating Expense Budget

Notable Changes in the Operating Budget

- Reduction in required sampling cost's
- Reductions in electricity at the NWTP & the SWTP
- Reductions in bridge piping maintenance
- Reductions in communications for offsite stations
- Increases in insurance and administration charges
- Increases in electricity at the RWPF
- Increases in vehicle maintenance

FY15 Request	\$8,164,905
FY14 Budget	\$8,219,730
<hr/>	
Reduced	\$ (54,825)

FY 15 Capital Improvement Program

The Proposed FY15 CIP consists of the Department's highest priority projects.

- ▶ The projects have been prioritized
- ▶ Funding for the projects can be done through:
 - Residual from savings in the FY14 CIP– Estimated \$1,448,300
 - The FY15 Renewal, Replace, & Improvement Fund
 - The FY15 Capital Fund
 - The Released Reserve Fund
 - Fund Balance from FY14 Operation's Savings

RWPF Head Works Structure

- ▶ The RWPF Head Works has been in service since 1990
- ▶ High concentrations of hydrogen sulfide dissolved in the wastewater have caused severe corrosion requiring extensive repairs
- ▶ Every component of the head works is in critical need of replacement.
- ▶ The rotating mechanism is highly corroded due to the corrosive environment
- ▶ The drums have cracks and staff has welded them together
- ▶ The drum screen manufacturer is no longer in business and our Maintenance staff has to fabricate replacement parts
- ▶ The shafts and gear drives on the compactors have failed several times.
- ▶ The concrete support structure has had spalled concrete exposing and corroding the reinforcing steel
- ▶ The existing head works cannot contain odor producing gases and is a major source of odor complaints

- ▶ FY15 \$1,200,000 (FY14 CIP Savings / Reallocation)
- ▶ FY16 \$2,500,000 (Capital Fund)

Priority #1



SWTP Emergency Standby Power

- ▶ LCEC is terminating the lease agreement.
- ▶ City Council approved the commitment to purchase the generator at the 5/19/14 City Council Meeting
- ▶ The Utility will be able to participate in LCEC's Interruptible Power Program which would save the City an Estimated \$50,000/yr in electrical savings
- ▶ Cost \$200,000 (R&R Fund)
Priority #2



Renew & Replace (water & sewer)

This is funding for unanticipated equipment repair or replacement at the five treatment facilities, the collections, and the distribution system. The utility bond sale requires an annual allocation to a renewal and replacement account to be used to maintain the utility systems.

- ▶ Replacing galvanized pipe taps that corrode and break off
- ▶ Repairing sink holes in street due to broken water pipe
- ▶ Replacement of analytical equipment required for facility operations
- ▶ The replacement of any mechanical equipment not under another Capital Budget
- ▶ Lightning strikes equipment or waterlines
- ▶ Other repair expenditures

Cost \$400,000 for water (R&R Fund)
 \$400,000 for sewer (R&R Fund)

Priority #3 and #4



SWTP– Train Conversion Pilot Study & Membrane Conversion

This project (year 1) is for a pilot study to take un-softened surface water, filter the water at NWTP and send the water to the SWTP for membrane softening. Year 2 of the project is to convert one of the SWTP reverse osmosis trains to low pressure membrane softening.

- ▶ Economic– payback of less than 3 years
- ▶ Less reliance on the ground water well system

Cost

- FY15 \$120,000 (R&R Fund)
- FY16 \$180,000 (R&R Fund)

Priority #5



Operating System– SCADA Software

The existing treatment plant operating system software is outdated, based on Windows XP and is no longer supported by the developer. This outlay will include upgrading the operating system software (Wonderware) to the current version, associated licenses and hardware, replacement of PLC's, modems, switches, controls and other infrastructure used for control, data acquisition, and treatment plant operation.

- ▶ Cost \$148,000 (R&R Fund)

Priority #6



NWTP Lime Thickening Tank Mixing Mechanism

A complete replacement of the current lime sludge thickener mixer and rake mechanism.

- ▶ The unit was built in the 1970's
- ▶ The unit leaks oil/grease
- ▶ The manufacturer no longer exists and parts must be custom fabricated

- ▶ **Cost \$200,000** (R&R Fund)
Priority #7



MLE Tank Repairs

- ▶ This tank was placed into service in 1990
 - ▶ The steel beam supports, catwalk, and the interior steel walls need to be repaired due to corrosion
 - ▶ The air header leaks and is in need of replacement
 - ▶ The air spargers (2,900 air spargers) need to be inspected, replacements and repairs can be expected
- ▶ **Cost \$250,000** (Capital Fund)
Priority #8



NWTP Lime Sludge Press & Housing

- ▶ The lime sludge press building was built in the 1970's
- ▶ The existing press was pre-owned prior to the City's purchase in 2004
- ▶ The building was retrofitted to accommodate the new press
- ▶ The press is used daily and produces 40,000 pounds of lime sludge cake
- ▶ The existing press requires extensive maintenance to keep it in service

Cost \$690,000

(Capital Fund)

Priority #9 and #10



Manhole Repairs

- ▶ Manhole Repairs (line 12 on 5yr CIP spreadsheet)
- ▶ There are 833 sanitary sewer manholes within the City of Marco Island
- ▶ Ongoing program of inspection, assessment, rehabilitation and implementation
- ▶ Systematic approach based on consulting engineers report and recommendations
- ▶ Cost \$125,000 (Capital Fund)

Priority #11



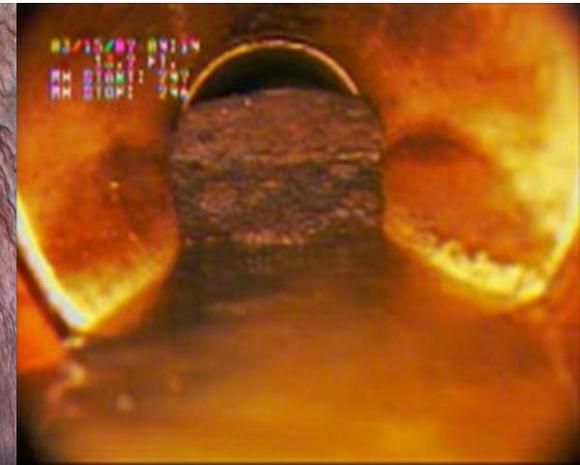
Rehab Gravity Sewer

- ▶ Approximately 40% of Marco Island's sewers were installed 40 years ago
- ▶ Inspection of our system is needed to help identify areas of concern
- ▶ The system is in need of repairs to the piping and manholes
- ▶ Video documentation of failing areas

Cost \$400,000/yr

(Capital Fund)

Priority #12



Meter Replacement (large binary meters)

- ▶ A 3-year program to replace all commercial meters 3" through 10" with a more accurate meter
- ▶ A pilot program showed that these meters will capture approximately 10% more flow
- ▶ The new meter will have a 2-3 year payback with a 10-15 year life expectancy

▶ Cost \$100,000

(FY14 CIP Savings / Reallocation)

Priority #13



VFD Installation at Offsite Wells

- ▶ Purchase and install Variable Frequency Drives (VFD's) at the offsite wells
- ▶ Reduce discharge pressure of the well pumps by approximately 40 psig
- ▶ Reduction in pressure will reduce the power cost of running the wells by approximately \$6,500/yr/well
- ▶ Would have a payback of about 4 years
- ▶ **Cost 60,000** (\$20,000/well)

(R&R Fund)

Priority #14



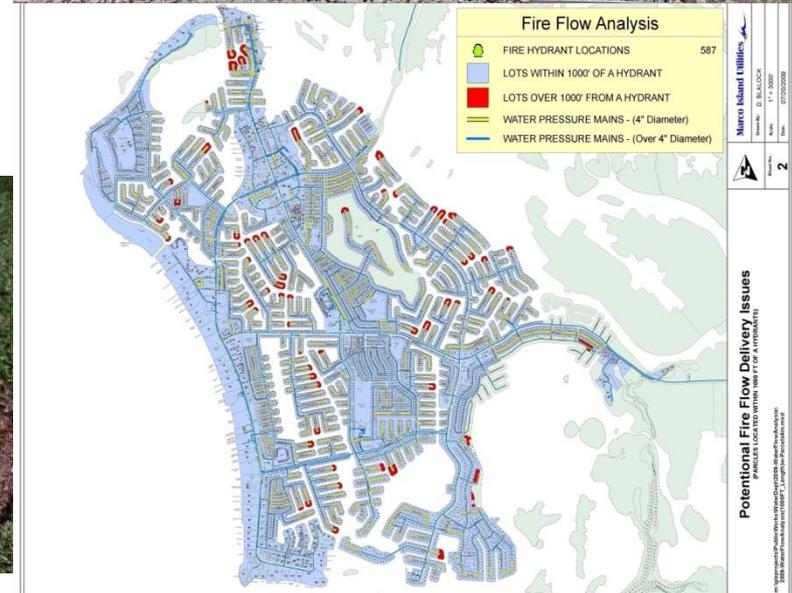
Replace Existing Fire Hydrants

- ▶ There are 582 Fire Hydrants in the system
- ▶ Program– repair 10–15 hydrants per year

▶ Cost ~~\$35,000/yr.~~

(\$0 Requested for FY15)

Priority #15



Lift Station Control Panel Replacement

This is to replace existing lift station control panels due to:

- Are below the 100 year flood plane
- Do not meet current standards
- Deterioration

➤ ~~Cost \$50,000~~

(\$0 Requested for FY15)

Priority #16



Questions ?



MARCO ISLAND WATER & SEWER DEPT							
5 YR CAPITAL IMPROVEMENT PROGRAM							
PRIORITY	CAPITAL IMPROVEMENT DESCRIPTION	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TOTAL
	FY14 CIP SAVINGS / REALLOCATION						
1	1g- Head Works Structure	1,200,000					1,200,000
13	Meter Replacement Binary Meters	100,000					100,000
	TOTAL FY14 CIP SAVINGS / REALLOCATION	1,300,000	-	-	-	-	1,300,000
	RENEWAL & REPLACEMENT FUND						
2	SWTP Generator	200,000					200,000
3	8f- Renewal & Replacement	400,000	400,000	400,000	400,000	400,000	2,000,000
4	8g- Renewal & Replacement	400,000	400,000	400,000	400,000	400,000	2,000,000
5	4g- Train Conversion Pilot Study	120,000	180,000				300,000
6	Plant Operating System Software and SCADA infrastructure	148,000					148,000
7	NWTP Lime Sludge Thickener Mixing	200,000					200,000
14	4f- VFD Installation at Offsite Wells	60,000	60,000	60,000	60,000		240,000
	TOTAL RENEWAL & REPLACEMENT	1,528,000	1,040,000	860,000	860,000	800,000	5,088,000
	CAPITAL FUND						
1	1g- Head Works Structure		2,500,000				2,500,000
8	1d- MLE Tank Repairs	250,000					250,000
9	NWTP Lime Sludge Press	600,000					600,000
10	NWTP Lime Sludge Press Bldg	90,000					90,000
11	Sanitary Sewer Manhole lining	125,000	125,000	125,000	125,000		500,000
12	2a- Rehab Gravity Sewer (mains, laterals, & co's)	400,000					
15	7a- Replace Fire Hydrants-existing/Repair	-	35,000	35,000	35,000	35,000	140,000
	TOTAL CAPITAL FUND	1,465,000	2,660,000	160,000	160,000	35,000	4,480,000
	UNFUNDED PROJECTS						
12	2a- Rehab Gravity Sewer (mains, laterals, & co's)	-	400,000	400,000	400,000	400,000	1,600,000
13	Meter Replacement Binary Meters	-	100,000	100,000			200,000
16	2d- Replacement Lift Station Control Panels	-	50,000	50,000	50,000	50,000	200,000
17	1f- Zenon Membrane Replacement		400,000	400,000	400,000	400,000	1,600,000
18	Existing bridge piping replacement		150,000	150,000	150,000	150,000	600,000
19	1h- RWPF Bleach Tank Housing Structure		70,000				70,000
20	2g- Lift Station Vault/Valve Replacement		75,000	75,000	75,000	75,000	300,000
21	8i Capital Equipment-Skid Steer		60,000				60,000
22	8c Large Capital Equipment-Backhoe		100,000				100,000
23	4b- RO Odor Control Rehab			100,000			100,000
24	SWF Electrical switchgear			125,000			125,000
25	MS Master Pump Station			60,000	800,000		860,000
26	1b- Flow Equalization Tank V			100,000	500,000		600,000
27	5b- NWTP Chemical Storage Area Housing			150,000			150,000
28	4-c RO Replacement of Old HS Pump Station			650,000			650,000
29	6b- Raw Water Pump Building			400,000			400,000
30	MBR/bridge crane enclosure				1,500,000		1,500,000
31	SWF Emergency Standby Generator w/ATS					550,000	550,000
32	RWPF Noise Abatement Wall					60,000	60,000
33	Reclaimed water storage tank					400,000	400,000
34	4d- Sand Separator Replacement					75,000	75,000
35	1j- RWPF Odor Control Analyzer					90,000	90,000
36	Sewer camera/grout truck					225,000	225,000
	UNFUNDED PROJECTS	-	1,405,000	2,760,000	3,875,000	2,475,000	10,515,000
	TOTAL CAPITAL IMPROVEMENTS	4,293,000	5,105,000	3,780,000	4,895,000	3,310,000	21,383,000