

Strategic Planning 2018
KRA #3 – Building the Utility
& Building the City
WRF Relocation



A Vision of The Future (Tax \$)

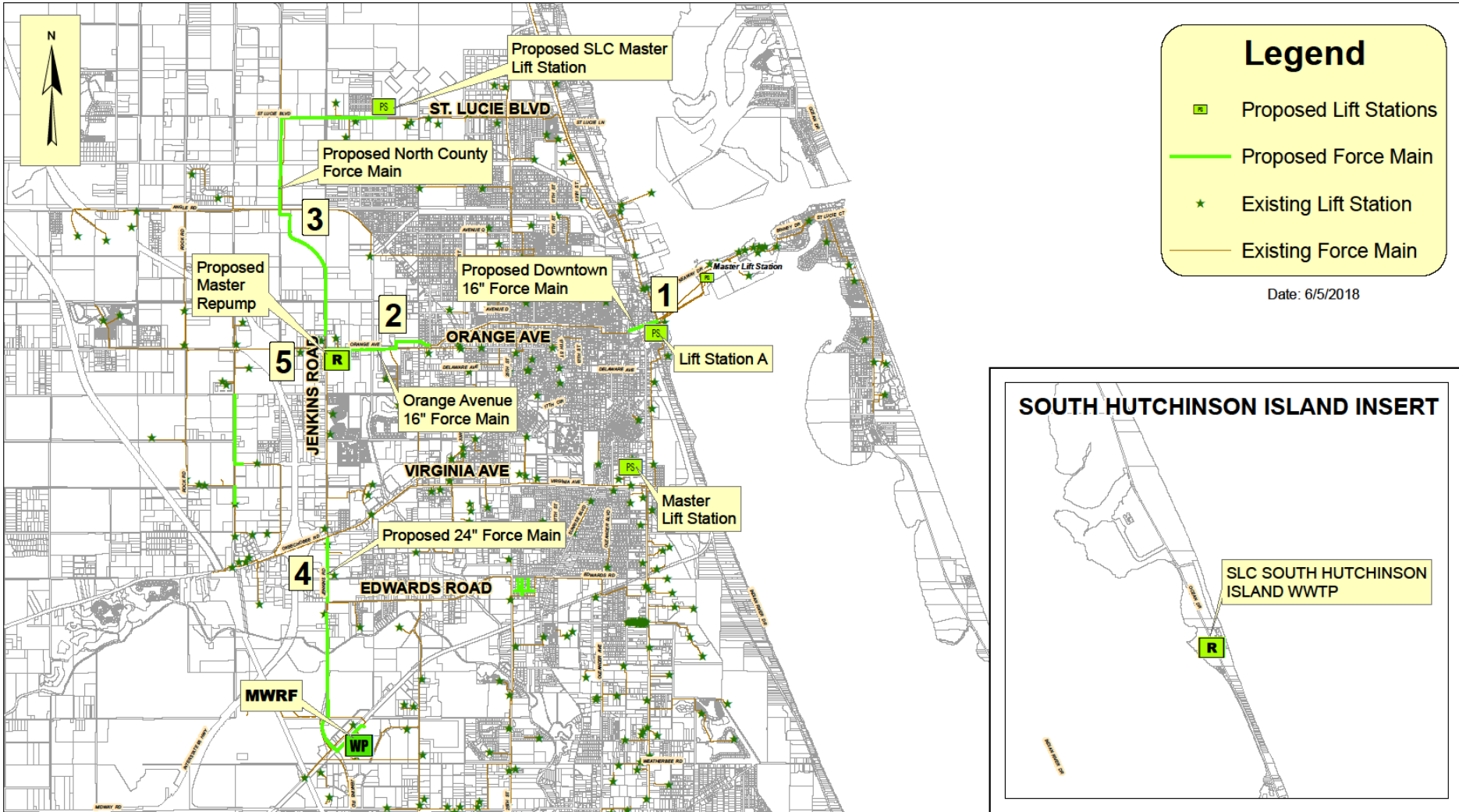
Towards A Destination

*A Community's Vision for the Relocation of the
Fort Pierce Waste Water Treatment Plant*



City of Fort Pierce
Marcela Cambior & Associates, Inc.

Situation Conveyance System



Analysis

WW to SLC South Hutch WWTP

Potential to Reduce MWRP to 5 MGD vs 10 MGD

80% of Plant Capacity Usable: 5 MGD = 4 MGD Available

Average WW Flows: 5.5 MGD

South Beach WW Flows: -.7 MGD

4.2 MGD

SLC South Hutch: 1.6 MGD, Effluent Reuse, Well Maintained

Max Capacity: 1.3 MGD (@ 80%)

Average Flows: -.5 MGD

.6 MGD

Conveyance System Estimated @ \$4.5 Mil

FDEP Variance? Good Business?

Analysis

Steps Taken to MWRP

✓ Purchased Property for Plant Site	\$ 1.1 M
✓ Purchased Property for Master Repump	\$.5 M
✓ Constructed 2 Deep Injection Wells	\$12.5 M
✓ Plant Designed	\$ 2.2 M
✓ Constructed 24" FM Along Jenkins Road	\$ 1.8 M
✓ All Master Planned Wastewater System Components Are Designed to Go Both Ways	
✓ Emergency Generator (FY 19) \$3.2 M	\$ 1.5 M
✓ Orange Ave. Force Main (FY 19-20)	\$ 1.7 M*
✓ Downtown Force Main (FY 22-23)	<u>\$ 2.5 M*</u>
Total Investment	\$23.8 M

Proposed Projects*

Analysis

5 Year Phasing

- **Phase 1 Funding & Engineering**

- Identify Funding
- Update MWRF Engineering & Cost
- Conveyance Engineering & Cost
- Major & Minor Lift Station Engineering & Cost
- Investigate IWRF Site for Contamination
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- **Phase 2 Permitting**

- Permitting
- Property Acquisition (24" FM, S Jenkins)
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- **Phase 3 Conveyance Construction**

- Orange Ave. 16" FM (Budget FY19-20)
- Downtown 16" FM (Budget FY22-23)
- Jenkins Rd. 24" FM
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- **Phase 4 MWFR Construction**

- 10 MGD MWFR Construction
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- **Phase 5 Lift Station Reconfiguration**

- LS E
- LS A
- IWRF LS
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- **Phase 6 Both IWRF & MWRF**

- Reverse Flow One Corridor at a Time
- System Testing
- Reconfigure Minor Lift Stations
- Other System Improvements
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- **Phase 7**

- Demolish IWRF
- Site Remediation

1 Year

.5 Year

1 Year (Concurrent)

2 Years (Concurrent)

1 Year (Concurrent)

1 Year

1 Year



Analysis

Hard Costs

• 10 MGD MWRF	87 M ¹
• Lift Stations	3 M
• Conveyance System	10 M ²
• Demolition IWRF	3 M
• <u>Contingency</u>	<u>5 M</u>
• Total Hard Costs	108 M

Cost Excludes Existing Deep Injection Wells¹

Cost May be Reduced by completed projects²



Analysis

Other Costs

Options

- Debt Service @ 5% 6.2 M/Yr.
 - ? FPUA 10% WW Rate Increase 1.3 M/Yr.
 - ? FTP & SLC Tax Assessment
 - ? CIC Fund Designation (Savings)
 - ? Budget for Supporting Projects Now
 - ? Municipal Service Benefits Unit (MSBU)
 - ? Partnership w/ SLC
 - ? Public Private Partnership
 - ? Environmental Grants
 - ? TCEC Reuse Water Sales
 - ? FPUA W&WW Expansion



Recommendations

- Options That Are Within Our Control
 - FPUA WW Rate Increase (%?)
 - CIC Fund Designation (Savings)
 - Budget for Supporting Projects Now
 - Evaluate Partnership w/ SLC
 - FPUA W&WW Expansion
 - Actively Pursue Any and All Opportunities

Goals

- Construct 1 Major Infrastructure Item per Year
- Create a Sustainable FPUA W&WW Expansion Program
- Evaluate Partnership w/ SLC