

2017 FSA Winter Conference

*Growth Signaling Long-Term Investment for
Anticipated Expansion of CCWSD*

December 7, 2017





Workshop Agenda

1. Vision, Mission and Guiding Principles
2. Past and Present Water Resource Management Strategy
3. Enhance Integrated Water Resource Management Strategy
4. Maintain Fiscal Responsibility (AAA, Affordability)
5. BCC Acceptance of Vision, Mission and Guiding Principles and Direction



Integrated Water Resource Water Management Strategy

- Is based on but not limited to:
 - Net Zero Water Footprint county-wide
 - Concurrency Management, Environmental & Regulatory Compliance
 - Demand Management/Water Conservation for Quality & Quantity
 - Develop IQ supply to meet irrigation demand
 - Operational Excellence
 - Affordability



Net Zero Water Footprint

- A sustainable water resource management strategy that balances the demand on all water resources for all purposes including drinking water, irrigation water, agricultural, industrial, and ecosystem needs with water quantity and quality.



Vision and Mission

Vision: To be recognized as a leader in water resource management by providing best value, responsive, compliant and sustainable services

Mission: To provide compliant, reliable, integrated, high quality potable and irrigation water in an economically and environmentally sustainable manner for future generations of Collier County



Guiding Principles

- Lead and maintain compliance with local, state and federal regulations
- Leverage state water policies to achieve the vision and mission
- Maximize available water sources
- Optimize residential, commercial and industrial water use through tiered rate structure and water conservation programs
- Preserve and maintain assets utilizing a robust asset management program
- Invest in infrastructure to achieve the vision and mission



Guiding Principles (continued)

- User rates, impact fees and other revenue sources that support:
 - Existing infrastructure repair and rehabilitation
 - Optimization of assets
 - Growth related programs and projects
- Apply innovative methods and explore emerging technologies for water treatment, wastewater reclamation and stormwater treatment to achieve vision and mission.
- CCWSD Special Act Boundaries will be the governing future service area



Potable Water System – Treatment Facilities

- Orange Tree Service Area Integrated into the CCWSD on March 1, 2017
- Acquisition of Golden Gate City Utilities from the Florida Governmental Utility Anticipated Early FY 2018
- Current and Future Water Service Areas Map, up to 4 MGD New Treatment Capacity will be Needed Starting in FY 2023
 - Achieved Through Phased Construction of the Northeast Utility Facilities (NEUF)
 - Service Additional Areas Outside of the Current Potable Water Service Area



Potable Water System – Treatment Facilities

- New Regional Water Treatment Plant (NEUF) to Support Proposed Developments in the NE Area
 - NEUF Sited on 147 Acres of County Owned Land
 - Design Documents 100% Complete in 2010
 - NEUF Program Reactivated to Update Design Criteria to Conform with Current Technologies
 - Site Work Planned to Begin FY 2018



Potable Water System – Treatment Facilities

- Project Reactivation in Anticipation Number of Large Developments Going Through Different Stages of the Growth Management Review Process
- Potable Water System
 - Need for Readiness Supported by CCWSD Utilization and Diminishing Capacity Report the “Checkbook” Which Compared Available Treatment Capacity to Board-approved planned PUD’s
 - Checkbook Reports 1% Deficit in Potable Water Treatment Capacity in Regional System



Potable Water System – Treatment Facilities

| Fiscal Year | New Treatment Capacity | Comments |
|--------------|------------------------|--|
| 2018 to 2023 | up to 4 MGD | <p>Within Current Service Area: Design and permitting updates for additional potable water treatment capacity at the NEUF should start in FY 2018, to be online in FY 2023, as follows:</p> <ul style="list-style-type: none"> a. Update design criteria, \$86,312, starting October 2017. b. Update construction drawings and bid package, \$500,000 - \$1,000,000 estimate, FY 2018-19. c. Construct site work, \$4,000,000 estimate, FY 2018-19. d. Construct potable water utility facilities, \$52,000,000 estimate, FY 2020-23. e. Construction Engineering & Inspection, \$5,600,000 estimate, FY 2018-23. |
| 2020 to 2025 | up to 4 MGD* | <p>Outside Current Service Area: Additional water treatment capacity anticipated to support proposed developments (subject to Board approval) in the northeast area of the jurisdictional boundary of the Collier County Water-Sewer District, as established by special act (Chapter 2003-353, Laws of Florida)), as follows:</p> <ul style="list-style-type: none"> a. Sub-regional transitional capacity, \$4,000,000 estimate, FY 2020-25. |

New Treatment Capacity



Potable Water System – Treatment Facilities

- Populations Based on Bureau of Economic and Business Research (BEBR) Medium Range Growth Rate Applied Through 2027
- Required Treatment Capacity at M3DD Obtained by Multiplying the Permanent Population Served on Oct. 1 by 150 (gpcd) and by Maximum (M3DD) Peaking Factor of 1.3 Expressed in (MGD)
- 150 gpcd Established (Loss)

Level of Service Standards (Loss) Assessment for Service Area



Potable Water System – Treatment Facilities

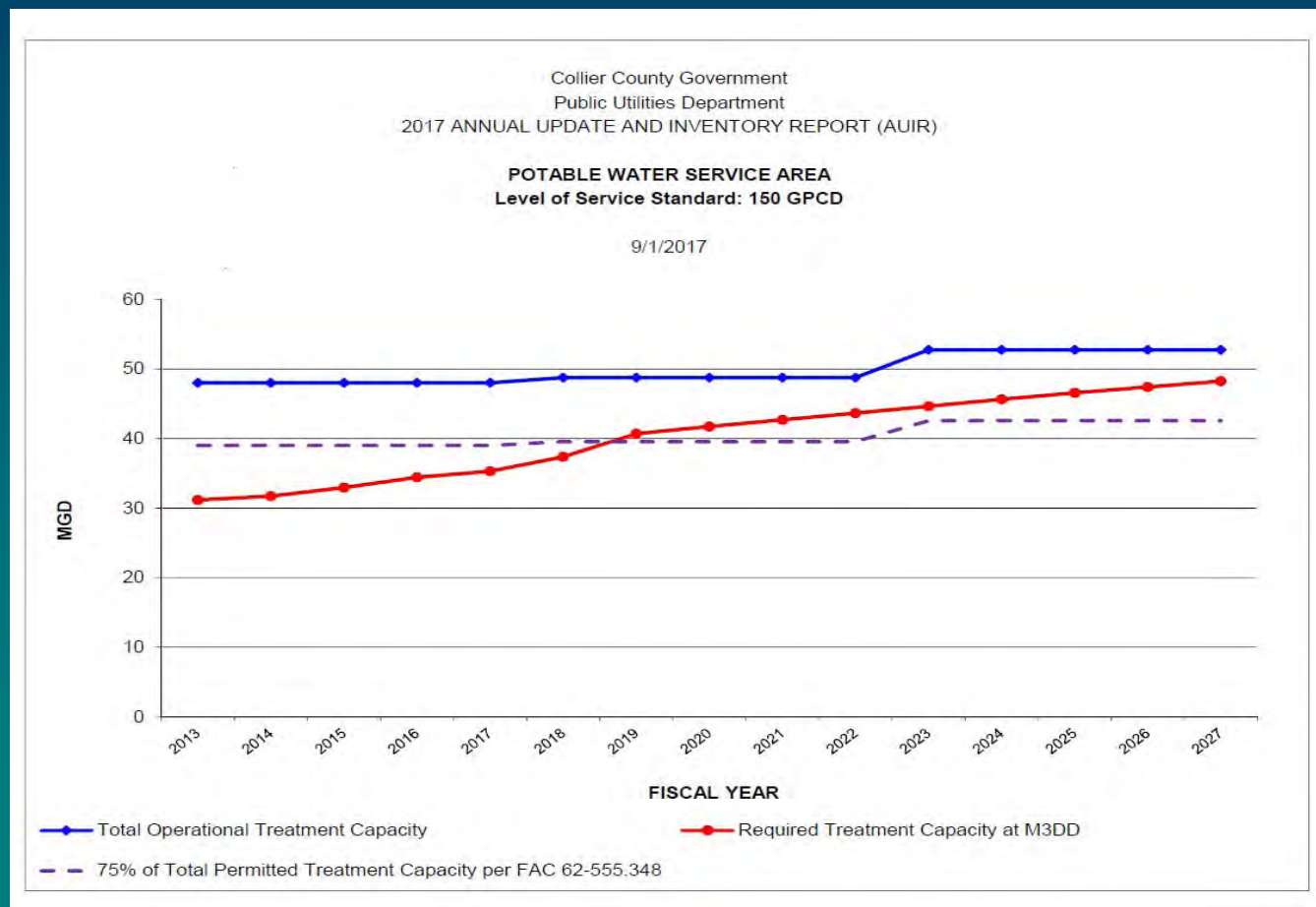
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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|---------------------------------------|--|-------------------------------|---|---|--|---|
| Fiscal Year | Permanent Population Served on Oct. 1 | Required Treatment Capacity at M3DD MGD | New Treatment Capacity MGD | Total Permitted Treatment Capacity MGD | Total Operational Treatment Capacity MGD | Retained Operational Treatment Capacity MGD | Percent of Total Permitted Capacity at MDD MGD |
| 2013 | 159,862 | 31.2 | | 52.00 | 48.00 | 16.8 | 62% |
| 2014 | 162,673 | 31.7 | | 52.00 | 48.00 | 16.3 | 63% |
| 2015 | 168,994 | 33.0 | | 52.00 | 48.00 | 15.0 | 66% |
| 2016 | 176,475 | 34.4 | | 52.00 | 48.00 | 13.6 | 69% |
| 2017 | 181,003 | 35.3 | | 52.00 | 48.00 | 12.7 | 70% |
| 2018 | 191,610 | 37.4 | | 52.75 | 48.75 | 11.4 | 74% |
| 2019 | 208,750 | 40.7 | | 52.75 | 48.75 | 8.0 | 80% |
| 2020 | 214,033 | 41.7 | | 52.75 | 48.75 | 7.0 | 82% |
| 2021 | 218,937 | 42.7 | | 52.75 | 48.75 | 6.1 | 84% |
| 2022 | 223,883 | 43.7 | | 52.75 | 48.75 | 5.1 | 86% |
| 2023 | 228,898 | 44.6 | up to 4.00 | 56.75 | 52.75 | 8.1 | 82% |
| 2024 | 233,985 | 45.6 | | 56.75 | 52.75 | 7.1 | 83% |
| 2025 | 238,724 | 46.6 | | 56.75 | 52.75 | 6.2 | 85% |
| 2026 | 243,068 | 47.4 | | 56.75 | 52.75 | 5.4 | 87% |
| 2027 | 247,425 | 48.2 | | 56.75 | 52.75 | 4.5 | 88% |

Level of Service Standards (Loss) Assessment for Service Area



Potable Water System – Treatment Facilities

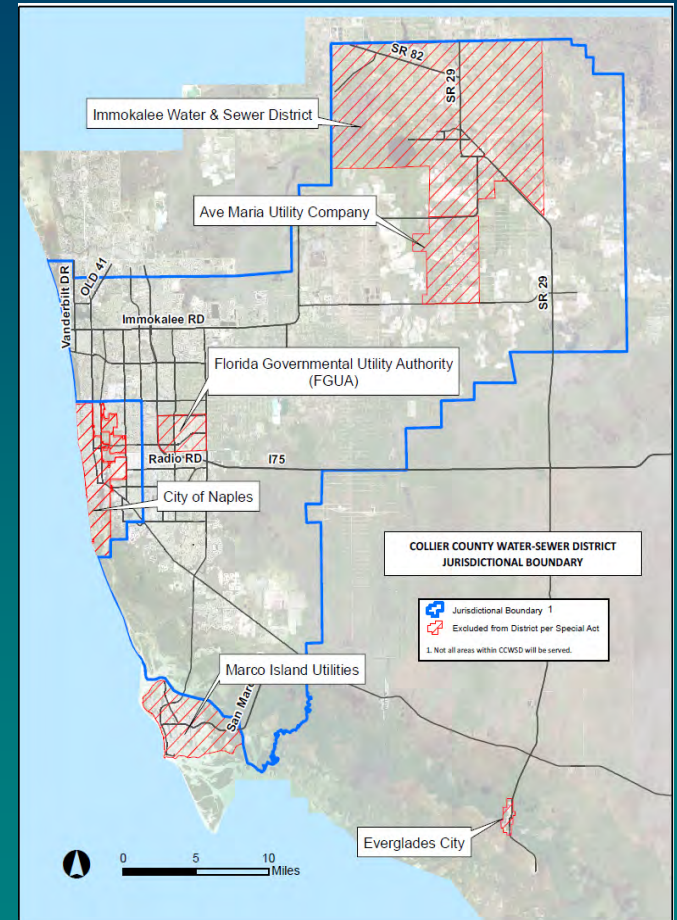
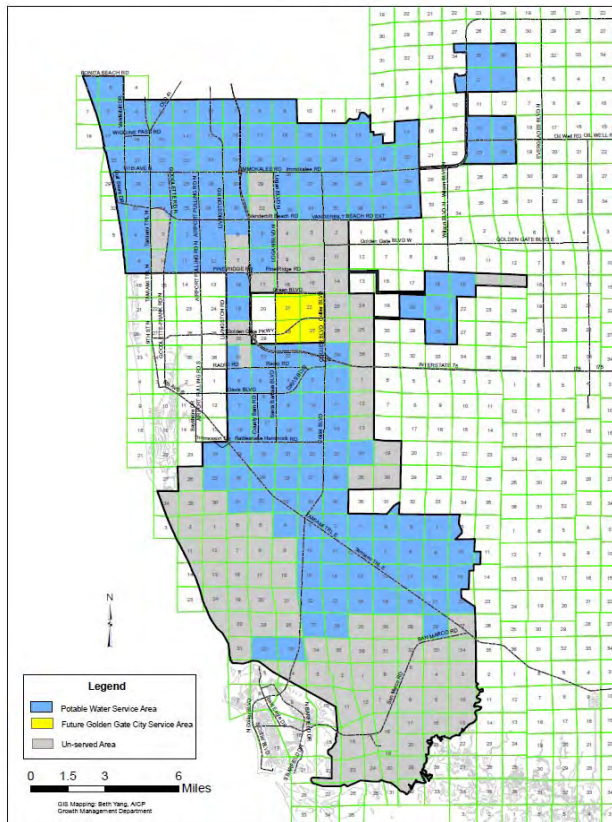


Level of Service Standard: 150 GPCD



Potable Water System – Treatment Facilities

Current and Future Water Service Areas
(2017 AUIR)





Wastewater System – Treatment Facilities

- Populations Based on Bureau of Economic and Business Research (BEBR) Medium Range Growth Rate Applied Through 2027
 - Need for Readiness Supported by CCWSD Utilization and Diminishing Capacity Report the “Checkbook” Which Compared Available Treatment Capacity to Board-approved Planned PUD’s
 - Checkbook Reports 19% Remaining Capacity at the NCWRF
 - Checkbook Reports 45% Deficit in Capacity at the SCWRF

Level of Service Standards (Loss) Assessment for Service Area



Wastewater System – Treatment Facilities

- Populations Based on Bureau of Economic and Business Research (BEBR) Medium Range Growth Rate Applied Through 2027
- Required Treatment Capacity at M3DF Obtained by Multiplying the Permanent Population Served on Oct. 1 by 100 (gpcd) and by Maximum (M3DF) Peaking Factor of 1.5 Expressed in (MGD)
- 100 gpcd Established (Loss)

Level of Service Standards (Loss) Assessment for Service Area



Wastewater System – Treatment Facilities

SCWRF

| Fiscal Year | New Treatment Capacity | Comments |
|-------------|------------------------|------------------------------|
| NA | 0 | The SCWRF site is built-out. |

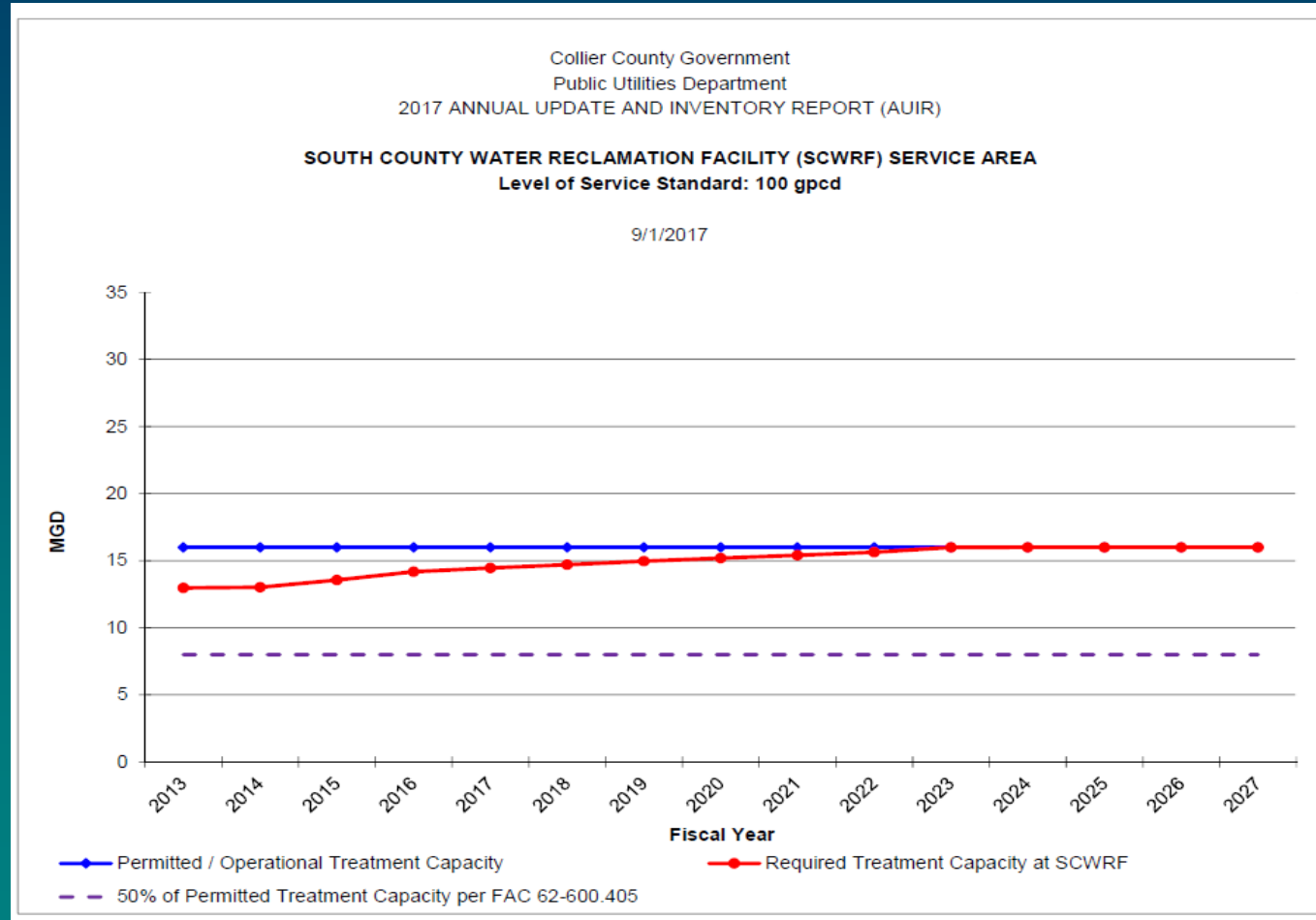
SCWRF

| Fiscal Year | Permanent Population Served on Oct. 1 | Max. 3-Day Daily Flow (M3DF) MGD | New Treatment Capacity MGD | Permitted / Operational Treatment Capacity MGD | Retained Operational Treatment Capacity MGD | Max. 3-Day Daily Flow Diverted to NCWRF MGD | Required Treatment Capacity at SCWRF MGD | Percent of Permitted Capacity at MMDF MGD |
|-------------|---------------------------------------|-------------------------------------|-------------------------------|---|--|--|---|--|
| 2013 | 86,490 | 13.0 | | 16.00 | 3.0 | | 13.0 | 65% |
| 2014 | 86,781 | 13.0 | | 16.00 | 3.0 | | 13.0 | 65% |
| 2015 | 90,395 | 13.6 | | 16.00 | 2.4 | | 13.6 | 68% |
| 2016 | 94,517 | 14.2 | | 16.00 | 1.8 | | 14.2 | 71% |
| 2017 | 96,410 | 14.5 | | 16.00 | 1.5 | | 14.5 | 72% |
| 2018 | 98,070 | 14.7 | | 16.00 | 1.3 | | 14.7 | 74% |
| 2019 | 99,764 | 15.0 | | 16.00 | 1.0 | | 15.0 | 75% |
| 2020 | 101,325 | 15.2 | | 16.00 | 0.8 | | 15.2 | 76% |
| 2021 | 102,747 | 15.4 | | 16.00 | 0.6 | | 15.4 | 77% |
| 2022 | 104,194 | 15.6 | | 16.00 | 0.4 | | 15.6 | 78% |
| 2023 | 106,665 | 16.0 | | 16.00 | 0.0 | | 16.0 | 80% |
| 2024 | 107,161 | 16.1 | | 16.00 | | 0.1 | 16.0 | 80% |
| 2025 | 108,522 | 16.3 | | 16.00 | | 0.3 | 16.0 | 81% |
| 2026 | 109,742 | 16.5 | | 16.00 | | 0.5 | 16.0 | 82% |
| 2027 | 110,978 | 16.6 | | 16.00 | | 0.6 | 16.0 | 83% |

New Treatment Capacity



Wastewater System – SCWRF Treatment Facilities



Level of Service Standard: 100 GPCD



Wastewater System – NCWRF Treatment Facilities

NCWRF

| Fiscal Year | New Treatment Capacity | Comments |
|--------------|------------------------|---|
| 2018 to 2023 | up to 4 MGD | <p>Within Current Service Area: Design and permitting updates for additional wastewater treatment capacity at the NEUF should start in FY 2018, to be online in FY 2023, as follows:</p> <p>a. Update design criteria, \$86,312, starting October 2017.</p> <p>b. Update construction drawings and bid package, \$500,000 - \$1,000,000 estimate, FY 2018-19.</p> <p>c. Construct site work, \$3,000,000 estimate, FY 2018-19.</p> <p>d. Construct wastewater utility facilities, \$39,000,000 estimate, FY 2020-23.</p> <p>e. Construction Engineering & Inspection, \$4,200,000 estimate, FY 2018-23.</p> |
| 2020 to 2025 | up to 4 MGD* | <p>Outside Current Service Area: Additional water treatment capacity anticipated to support proposed developments (subject to Board approval) in the northeast area of the jurisdictional boundary of the Collier County Water-Sewer District, as established by special act (Chapter 2003-353, Laws of Florida), as follows:</p> <p>a. Sub-regional transitional capacity, \$4,000,000 estimate, FY 2020-25.</p> |

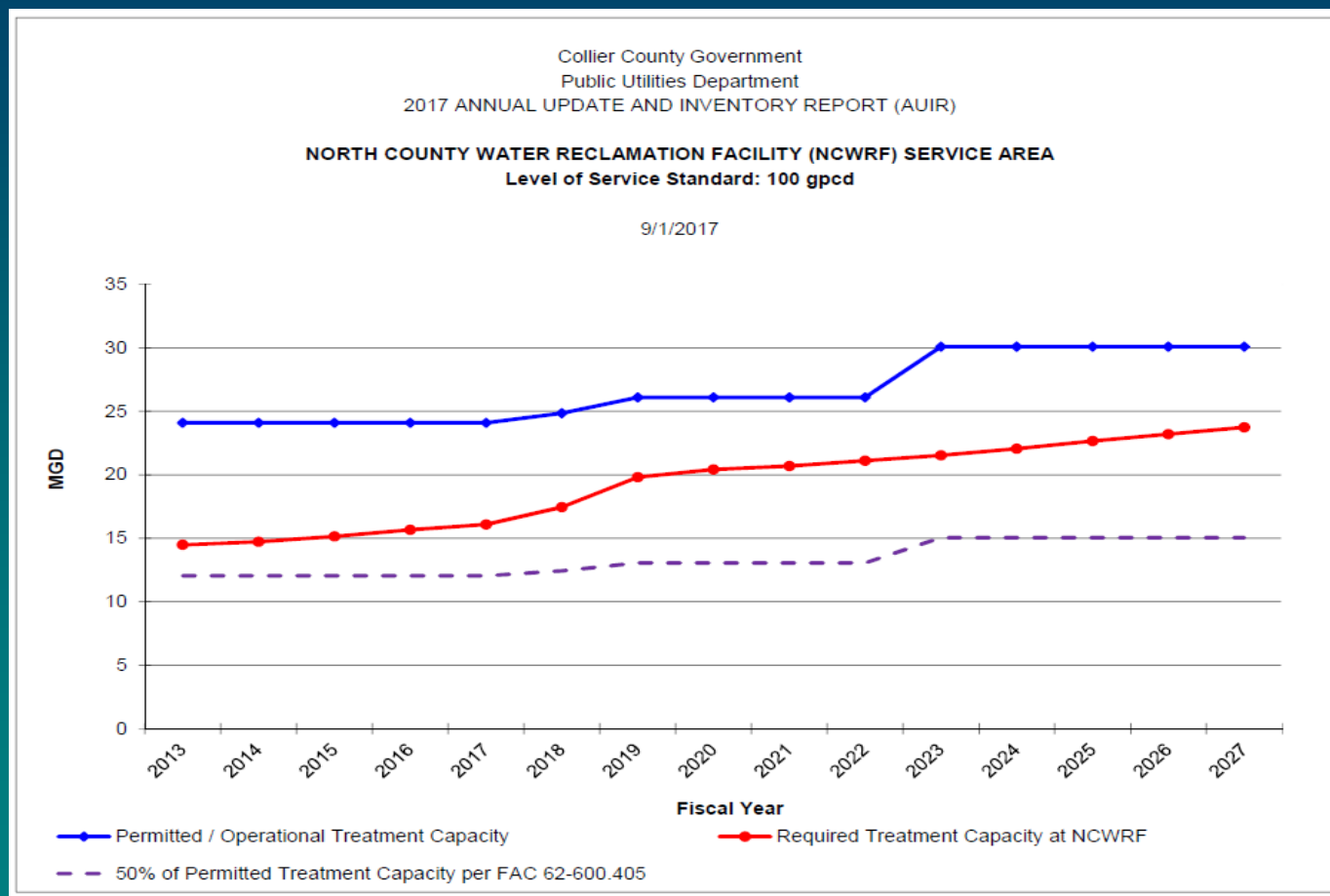
NCWRF

| Fiscal Year | Permanent Population Served on Oct. 1 | Max. 3-Day Daily Flow (M3DF) | New Treatment Capacity | Permitted / Operational Treatment Capacity | Retained Operational Treatment Capacity | Max. 3-Day Daily Flow Diverted to NCWRF | Required Treatment Capacity at NCWRF | Percent of Permitted Capacity at MMDF |
|-------------|---------------------------------------|------------------------------|------------------------|--|---|---|--------------------------------------|---------------------------------------|
| | | MGD | MGD | MGD | MGD | MGD | MGD | MGD |
| 2013 | 96,549 | 14.5 | | 24.10 | 9.6 | | 14.5 | 48% |
| 2014 | 98,136 | 14.7 | | 24.10 | 9.4 | | 14.7 | 49% |
| 2015 | 100,947 | 15.1 | | 24.10 | 9.0 | | 15.1 | 50% |
| 2016 | 104,444 | 15.7 | | 24.10 | 8.4 | | 15.7 | 52% |
| 2017 | 107,245 | 16.1 | | 24.10 | 8.0 | | 16.1 | 53% |
| 2018 | 116,421 | 17.5 | | 24.85 | 7.4 | | 17.5 | 56% |
| 2019 | 132,099 | 19.8 | | 26.10 | 6.3 | | 19.8 | 61% |
| 2020 | 136,148 | 20.4 | | 26.10 | 5.7 | | 20.4 | 63% |
| 2021 | 137,937 | 20.7 | | 26.10 | 5.4 | | 20.7 | 63% |
| 2022 | 140,747 | 21.1 | | 26.10 | 5.0 | | 21.1 | 65% |
| 2023 | 143,605 | 21.5 | up to 4.00 | 30.10 | 8.6 | | 21.5 | 57% |
| 2024 | 146,513 | 22.0 | | 30.10 | 8.1 | 0.1 | 22.1 | 58% |
| 2025 | 149,190 | 22.4 | | 30.10 | 7.7 | 0.3 | 22.7 | 59% |
| 2026 | 151,594 | 22.7 | | 30.10 | 7.4 | 0.5 | 23.2 | 60% |
| 2027 | 154,007 | 23.1 | | 30.10 | 7.0 | 0.6 | 23.7 | 61% |

New Treatment Capacity



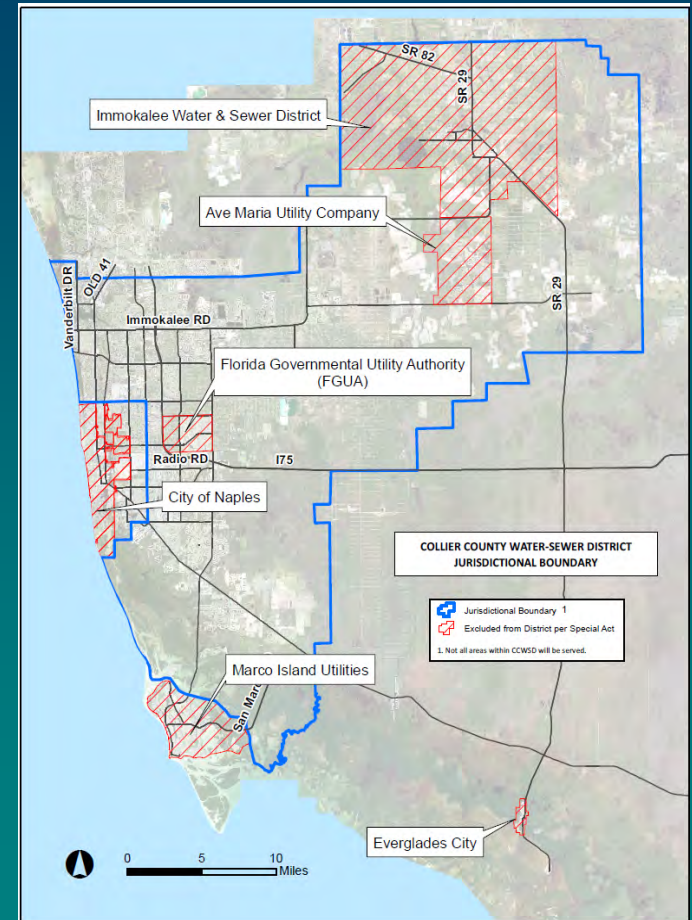
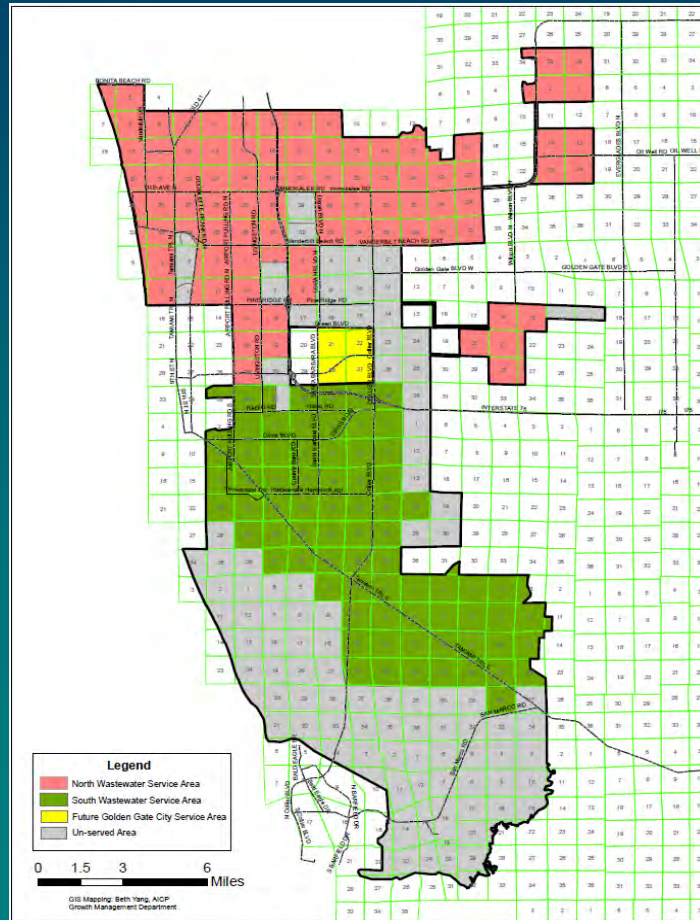
Wastewater System – NCWRF Treatment Facilities



Level of Service Standard: 100 GPCD



Wastewater System – Treatment Facilities



Current and Future Wastewater Service Areas



Growth Management Department (GMD) Integrated Water Resource Management



- Stormwater Planning & Capital Construction
- Secondary & Tertiary System Maintenance and Operation
- Development Reviews & Permitting with State Agencies
- Pollution Prevention
- Legacy Infrastructure Rehabilitation
- System Enhancements



Integrated Stormwater Resource Management Projects and Programs

| OBJECTIVES | Status | | |
|--|-----------|----------|--------|
| | Completed | Underway | Future |
| Short Range (1 to 5 Years): | | | |
| Watershed Management Plan | ✓ | | |
| Golden Gate Estates Area Watershed Imp. Program (GGWIP) | | ✓ | |
| Stormwater Utility (County-Wide Unincorporated Area) | | | ✓ |
| LASIP | | ✓ | |
| Immokalee Area Watershed Imp. Program (Coord w/ CRA & SFWMD/BCB) | | ✓ | |
| Golden Gate City Stormwater Improvements | | ✓ | |
| Naples Park Stormwater Improvements | | ✓ | |
| Palm Springs Outfall Improvements | | | ✓ |
| Griffin Road Area Stormwater Improvements | | | ✓ |
| Stormwater Asset Inventory Capture & GIS Database Update | | ✓ | |
| System Level of Service (LOS) Evaluation & Update | | | ✓ |
| Intermediate Range (6 to 20 Years): | | | |
| Comprehensive Watershed Improvement Program (RESTORE Funding) | | ✓ | |
| Gordon River Extension Improvements | | ✓ | |
| Water Level & Flow Control Structures including ASRs | | ✓ | |
| Pine Ridge Outfall Upgrades | | | ✓ |
| Goodlette Road Ditch Improvements | | | ✓ |
| Long Range (21 to 50 Years): | | | |
| Coastal Stormwater Management System Resiliency Upgrades | | | ✓ |
| Water Quality Improvement Stormwater Filter Marsh Projects | | | ✓ |



The Stormwater Utility (SWU)

- 2011 BCC Acceptance of the Watershed Management Plan Including Recommendation to Investigate Establishment of a SWU.
- 2014 AUIR - CCPC Recommended Staff Explore Alternate Stormwater Management Program Funding.
- 2015 Pursuit of RESTORE Funds for Environmental Restoration Projects Only Not Existing SW Infrastructure Enhancements



The Stormwater Utility (con't.)

- Well Received in Florida and Other States
- Based on Contribution, Not Property Value
- Diversifies Annual Revenue Basis
- Enables a GF Mileage Rate Reduction
- Captures Many Tax Exempt Property Owners
- Transparent with Respect to Revenue Uses
- Fair and Equitable to All SWU Customers
- Sustainable Revenues
(13/67 Florida counties and 150/410 cities have stormwater utilities)



Workshop Recommendations that the Board:

1. Accept of Vision, Mission and Guiding Principles
2. Invest in PUD financial resources
3. Continue to invest in PUD and GMD programs and infrastructure projects
4. Updates to the LDC to reflect Vision, Mission and Guiding Principles
5. Provide direction to conduct a SWU Feasibility Study, including financial and corresponding infrastructure needs.



Questions and Answers
