COUNTY WATER - SEWER DISTRICT – WASTEWATER TREATMENT SYSTEMS

CONTENTS

- 2021 AUIR FACILITY SUMMARY - WASTEWATER TREATMENT SYSTEM FACILITIES
- INTRODUCTION
- LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA (TABLE, NOTES & CHART)
- LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA (TABLE, NOTES & CHART
- COLLIER COUNTY WATER-SEWER DISTRICT - CURRENT AND FUTURE WASTEWATER SERVICE AREAS MAP
- COLLIER COUNTY WATER-SEWER DISTRICT - WASTEWATER SERVICE JURISDICTION (MAP)
- FUTURE DEVELOPMENT IN NORTHEAST COLLIER COUNTY (MAP)
- COLLIER COUNTY WATER-SEWER DISTRICT - SYSTEM UTILIZATION AND DIMINISHING CAPACITY REPORT (“CHECKBOOK”)
- EXHIBIT “A” - SCHEDULE OF CAPITAL IMPROVEMENTS
- APPENDIZ “H” - FUTURE COSTS AND REVENUES BY TYPE OF PUBLIC FACILITY

2021 AUIR FACILITY SUMMARY
WASTEWATER TREATMENT SYSTEM FACILITIES

Facility Type: Collier County Water-Sewer District – Wastewater Treatment System

Level of Service Standard: 90 gallons per capita day (gpcd) [1]

Capacity: South Service Area (SCWRF)

Permitted/Operational Treatment Capacity, FY22	16.00 MGD
Required Treatment Capacity, FY22	12.15 MGD
Permitted/Operational Treatment Capacity, FY31	16.00 MGD
Required Treatment Capacity, FY31	14.02 MGD

Capacity: North Service Area (NCWRF)

Permitted/Operational Treatment Capacity, FY22	24.10 MGD
Required Treatment Capacity, FY22	17.20 MGD
Permitted/Operational Treatment Capacity, FY31	24.10 MGD
Required Treatment Capacity, FY31	18.42 MGD

Capacity: Golden Gate City Central Service Area (GGWWTP/CCWRF)

Permitted/Operational Treatment Capacity, FY22	1.50 MGD
Required Treatment Capacity, FY22	1.15 MGD
Permitted/Operational Treatment Capacity, FY31	5.00 MGD
Required Treatment Capacity, FY31	1.33 MGD

Capacity: Orange Tree Service Area (OTWWTP)

Permitted/Operational Treatment Capacity, FY22	0.75 MGD
Required Treatment Capacity, FY22	0.62 MGD
Permitted/Operational Treatment Capacity, FY31	0.00 MGD
Required Treatment Capacity, FY31	0.00 MGD

Capacity: Northeast Service Area (Interim WWTP & NECWRF)

Permitted/Operational Treatment Capacity, FY22	0.00 MGD
Required Treatment Capacity, FY22	0.00 MGD
Permitted/Operational Treatment Capacity, FY31	5.50 MGD
Required Treatment Capacity, FY31	1.70 MGD

Expenditures FY22-FY26 (2)

Debt Service		$63,559,000
Expansion Related Projects - Other		$186,737,000
Replacement & Rehabilitation Projects - Other		$203,302,000
Departmental Capital		$2,861,000
Reserve for Contingencies - Replacement & Rehabilitation Projects (3)		$17,473,000
	TOTAL	$473,932,000

Existing Revenue Sources FY22-FY26

Wastewater System Development Fees / Impact Fees		$39,500,000
Bonds		$202,987,000
Cares Act Funding		$7,000,000
Wastewater Capital Account - Transfers		$2,861,000
Rate Revenue		$221,584,000
	TOTAL	$473,932,000

Surplus or (Deficit) for Five Year Program $0

Recommended Action:

That the BCC find the Collier County Water-Sewer District Wastewater Treatment System in compliance with concurrency requirements found in FS Section 163, the Collier County Comprehensive Plan and the Land Development Code; and that it approve the proposed 2021 CCWSD Wastewater Treatment Facilities AUIR and adopt the CIE Update for FY22-FY26.

Conclusion:

To ensure adequate treatment capacity for growth within the district boundary of the Collier County Water-Sewer District, expansion related projects commenced in FY 2019 based on the Level of Service Standard, population projections and capacity as shown in the AUIR.

---

(1) Per the latest master plan, which reduces the Level of Service (LOS) standard from 100 to 90 GPCD

(2) The CIE is consistent with the Board-approved FY22 budget.

(3) As per Florida Statutes Section 129.01(c), contingency reserves are up to 10% of expenses

Collier County Water-Sewer District
Current and Future Wastewater Service Areas

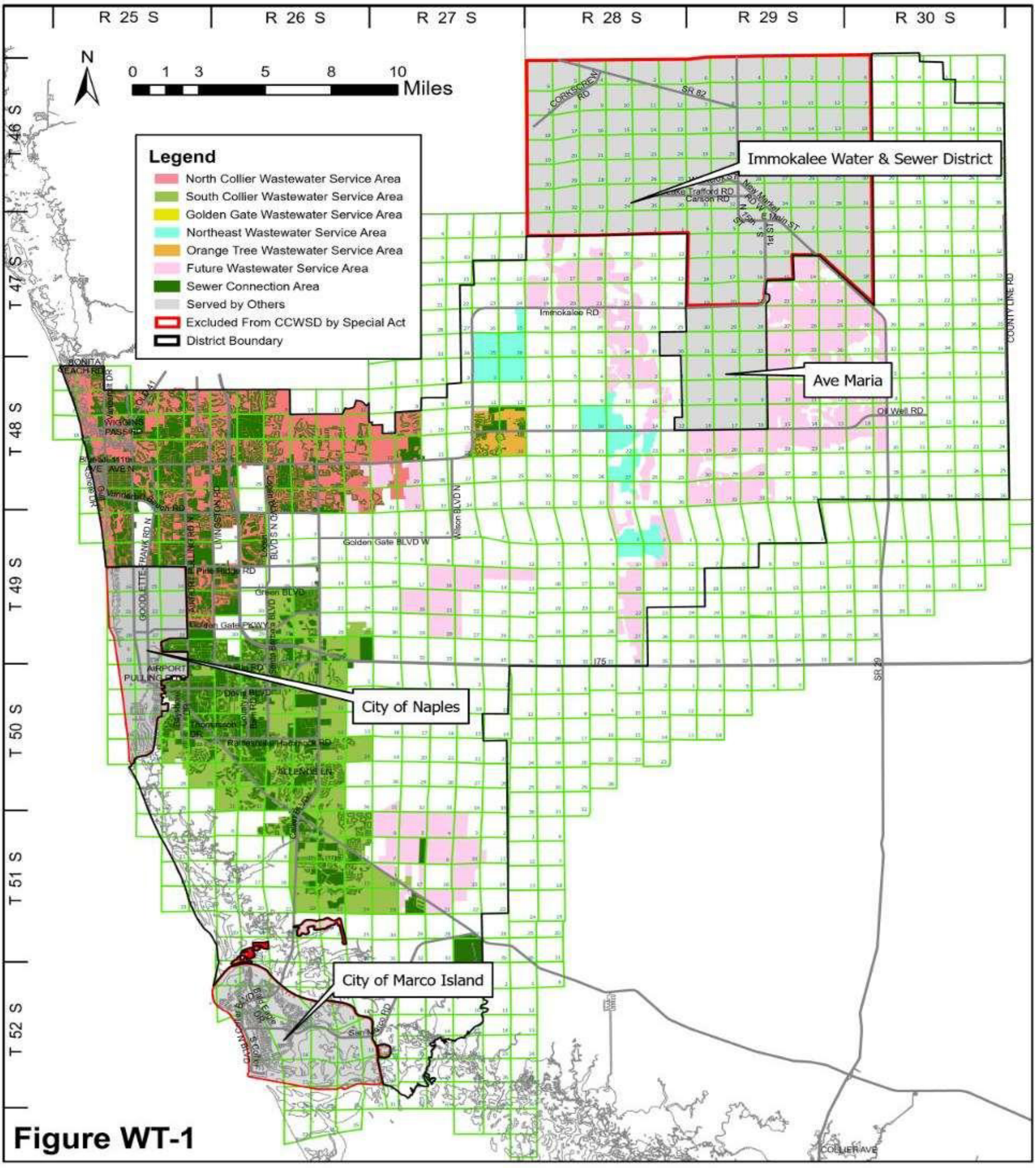


Figure WT-1

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
INTRODUCTION

The Public Utilities Department's (PUD's) proposed 2021 CCWSD Wastewater System Treatment Facilities AUIR is based on permanent population estimates and projections for the CCWSD's wastewater service areas prepared by the Collier County Comprehensive Planning Section on July 7, 2021. Populations are based on using the Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2031.

The BEBR population numbers are adjusted using data from the Collier Interactive Growth Model, as produced and maintained by Metro Forecasting Models, LLC, including estimates for the Northeast and Golden Gate City Wastewater Service Areas, where growth rate has not been established or only a portion of the population is served.

Notes

A. Concurrency is shown for 10 years for the current service area. This conforms with the State mandated CIE, concurrency regulations, and other Collier County Departments' AUIR submittals.

B. On September 11, 2018, as Agenda Item 17.F, the Board adopted a resolution expanding the CCWSD's service area to coincide with the unincorporated area permitted by Chapter 2003-353, Laws of Florida. This "District Boundary," as shown on the map entitled, "Collier County Water-Sewer District Current and Future Wastewater Service Areas," encompasses the villages planned in the Northeast Service Area, including three villages in the Big Cypress Stewardship District (Rivergrass, Longwater, and Bellmar), the adjacent SkySail subdivision (FKA Hyde Park Village), and Immokalee Road Rural Village, all depicted on the preceding service area map.

C. The Golden Gate wastewater service area will expand when needed to accommodate flow from current and future development in Activity Center #9 and the surrounding area north of I-75. A force main was extended along Magnolia Pond Drive and Tropicana Boulevard, between the high school and the plant, in preparation for the future diversion, which will relieve capacity constraints at the South County Water Reclamation Facility (SCWRF) and in the force mains along Collier Boulevard and Davis Boulevard. To facilitate this service area expansion as well as anticipated redevelopment of the Golden Gate Parkway corridor and the Golden Gate Country Club (acquired by the County in July 2019) and the conversion of existing septic system users within the existing service area, the Golden Gate City WWTP will undergo an expansion to 4 MGD, resulting in the Central County Water Reclamation Facility (CCWRF).

D. To serve the Orangetree and Orange Blossom Ranch PUDs, a new master pump station and associated force main improvements were completed in FY 2019 that allow the diversion of peak flows from the Northeast Sub-Regional (former Orangetree) Wastewater Treatment Plant to the North County Water Reclamation Facility (NCWRF). (The Orangetree PUD includes Waterways of Naples, Orangetree, Valencia Lakes, Neighborhood Shoppes at Orangetree, and Valencia Golf & Country Club as well as the Corkscrew Elementary/Middle and Palmetto Ridge High campuses.)

E. The new regional water reclamation facility at the Northeast Utility Facilities (NEUF) site will support forecasted growth in the northeast region of the county. The NEUF is sited on 147 acres of County owned land at the east end of 39th Ave NE. 100% design documents were completed in 2010. The NEUF program has been reactivated, starting with updating the design criteria (FY 2018) and modifying the design plans to conform with current technologies (FY 2018-2019). Design-build construction of a 1.5 MGD interim WWTP and associated pipelines began in 2019, due to be complete in 2023. This will be followed by a 4 MGD initial phase of the Northeast County Water Reclamation Facility (NECWRF) to be online by FY 2030, depending on developer commitments. The addition of a third water reclamation facility provides the needed reliability to serve the expanded CCWSD. This will reduce the high and wide-ranging flows to the existing two plants and will allow for rehabilitation and replacement.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
INTRODUCTION

Project reactivation is in anticipation of the quantity of large developments going through different stages of the Growth Management Department review process. The need for readiness is also supported by the “Collier County Water-Sewer District System Utilization and Diminishing Capacity Report” (the “Checkbook”), which compares available treatment capacity to potential flow from undeveloped permitted uses in Board-approved planned unit developments (PUDs). The Checkbook uses the historical maximum 3-day average daily flow and monthly average daily flow from the last 10 years as baseline scenarios. Unbuilt future commitments are then multiplied by standard peaking factors and added to the baselines to arrive at worst-case scenarios for future operational requirements. Currently, the Checkbook reports that if all active Board-approved PUDs were built-out, the SCWRF would have a 27% deficit in and the NCWRF would have a 0% deficit in permitted treatment capacity.

F. The LOS standards presented herein represent normal operating conditions. The Public Utilities Department also evaluates the ability of the wastewater system to manage peak wet weather events in the draft 2021 Wastewater Master Plan. Improvements to the collections system and treatment plants, such as pipe replacement, flow diversion, and storage, are programmed to ensure that peak wet weather flows can be managed.

G. The Public Utilities Department has completed draft master plans for water, wastewater, and irrigation quality water under Contract # 18-7370 with AECOM Technical Services, Inc. These master plans include recommendations for level of service (LOS) standards and the timing of capacity improvements as reported herein. In this section of the AUIR, the terminology "latest master plan" refers to AECOM's "Draft Potable Water Master Plan" dated July 2021.

The 2021 Wastewater System AUIR is presented as a snapshot of concurrency conditions. The CCWSD is in compliance with concurrency requirements for FY 2022 and FY 2023, as required by FS Section 163, the Collier County Comprehensive Plan, and the Land Development Code.

Recommendation

The Public Utilities Department’s staff recommends that the Collier County Board of County Commissioners approve the 2021 CCWSD Wastewater System Treatment Facilities AUIR.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021

1	2	3	4	5	6	7	8	9
Fiscal Year	Permanent Population Served on Oct. 1	Max. Month Average Daily Flow (MADF) MGD	New Treatment Capacity MGD	Permitted / Operational Treatment Capacity MGD	Retained Operational Treatment Capacity MGD	Max. MADF Diverted to NCWRF MGD	Required Treatment Capacity at SCWRF MGD	Percent of Permitted Capacity MGD
2017	94,622	10.6		16.00	5.4		10.6	59%
2018	96,459	10.8		16.00	5.2		10.8	60%
2019	99,239	11.1		16.00	4.9		11.1	62%
2020	102,874	11.5		16.00	4.5		11.5	64%
2021	106,088	11.8		16.00	4.2		11.8	66%
2022	108,837	12.1		16.00	3.9		12.1	68%
2023	111,638	12.5		16.00	3.5		12.5	70%
2024	113,045	12.6		16.00	3.4		12.6	71%
2025	115,511	12.9		16.00	3.1		12.9	72%
2026	117,738	13.1		16.00	2.9		13.1	74%
2027	119,415	13.3		16.00	2.7		13.3	75%
2028	120,961	13.5		16.00	2.5		13.5	76%
2029	122,541	13.7		16.00	2.3		13.7	77%
2030	124,151	13.9		16.00	2.1		13.9	78%
2031	125,642	14.0		16.00	2.0		14.0	78%

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021

Notes *(References are to the column numbers on the previous page.)*

1. Fiscal Year starts October 1 and ends September 30.

2. Permanent Population Served on Oct. 1. Estimates and projections for the served area were prepared by the Collier County Comprehensive Planning Section on July 7, 2021. Populations are based on the Bureau of Economic and Business Research (BEBR) Medium Range growth rate applied through 2031. Permanent population is used in accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan.

   The new villages in the northeast wastewater service area will draw housing demand away from the existing wastewater service areas with significant remaining development potential. Therefore, their population projections are proportionally deducted from the projections for the north, south, and Orange Tree wastewater service areas. The portion taken from the south wastewater service area is 63 percent.

3. Max. Month Average Daily Flow (MADF) is obtained by multiplying the Permanent Population Served on Oct. 1 by 90 gallons per capita per day (gpcd) and by a maximum monthly average daily flow (MADF) peaking factor of 1.24 and is expressed in million gallons per day (MGD). These values are the Level of Service (LOS) standards recommended in the latest master plan.

4. New Treatment Capacity is the additional treatment capacity in million gallons per day (MGD) placed into service by the start of the fiscal year through plant construction/expansion, as follows:

Fiscal Year	New Treatment Capacity	Comments
NA	0 MGD	The SCWRF site is built-out given current treatment technology on-site.

5. Permitted / Operational Treatment Capacity is the permitted treatment capacity at the beginning of the fiscal year with no deduction for the largest unit being out of service given that the SCWRF is designed for Class I reliability. Permitted / Operational Treatment Capacity is plotted in the chart on the next page.

   In accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan, Total Operational Treatment Capacity must be sufficient for the max. TDADF.

6. Retained Operational Treatment Capacity is the Permitted / Operational Treatment Capacity minus the Max. Month Average Daily Flow (MADF). Any deficit in operational treatment capacity is countered by diverting flow to the NCWRF.

7. Max. MADF Diverted to NCWRF is the max. flow that must be diverted to the NCWRF to avoid exceeding the permitted capacity of the SCWRF.

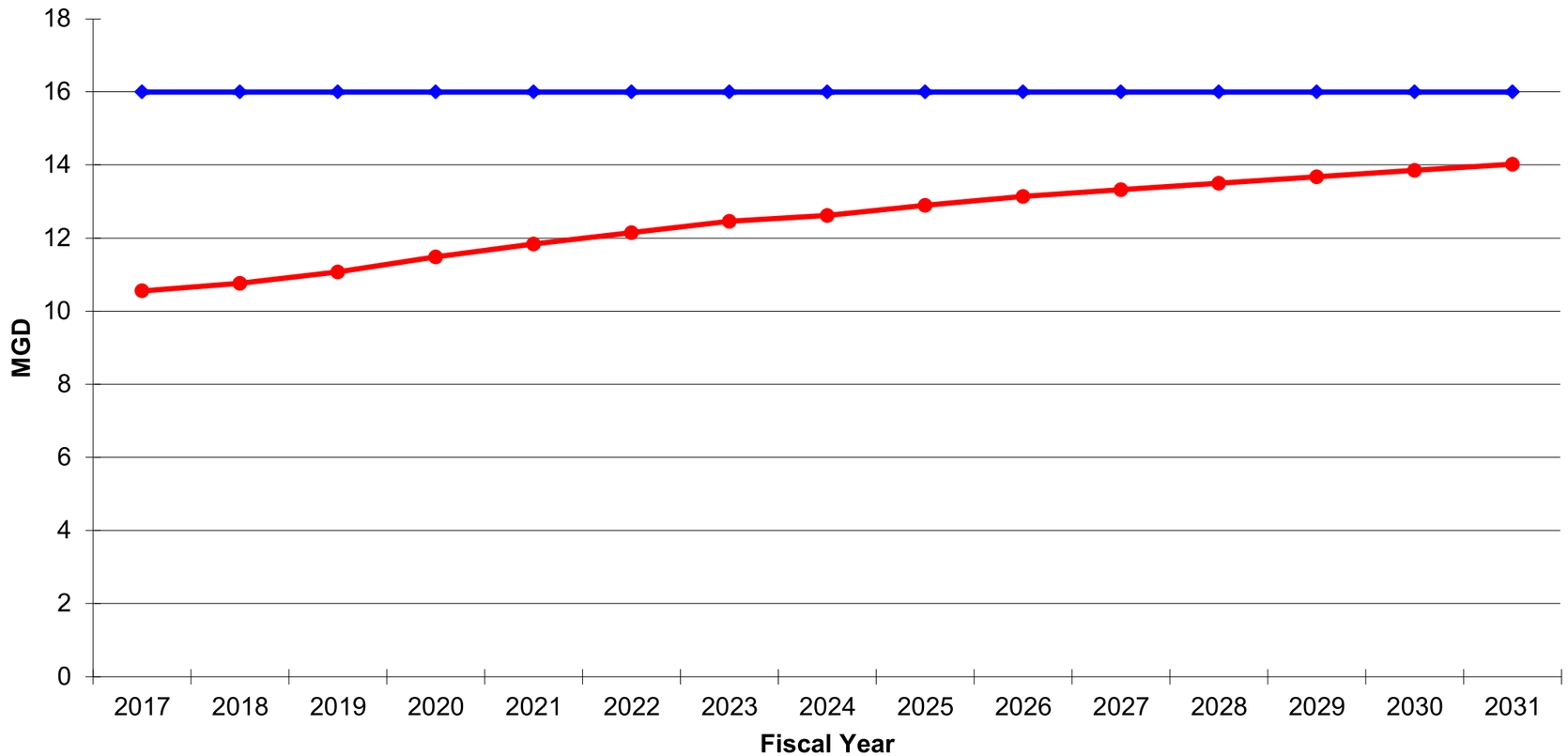
8. Required Treatment Capacity at SCWRF is equal to the Max. Month Average Daily Flow (MADF) less the Max. MADF Diverted to NCWRF and is plotted in the chart on the next page.

9. Percent of Permitted Capacity is the maximum Three-Month Average Daily Flow (TMADF) as a percentage of Permitted / Operational Treatment Capacity. TMADF is calculated using a peaking factor of 1.11 per the latest master plan. Per FAC 62-600.405, capacity analysis reporting to the Department of Environmental Protection (DEP) is triggered once TMADF exceeds 50% of permitted capacity, as plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021



Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021

1	2	3	4	5	6	7	8	9
Fiscal Year	Permanent Population Served on Oct. 1	Max. Month Average Daily Flow (MADF) MGD	New Treatment Capacity MGD	Permitted / Operational Treatment Capacity MGD	Retained Operational Treatment Capacity MGD	Max. MADF Diverted to NCWRF MGD	Required Treatment Capacity at NCWRF MGD	Percent of Permitted Capacity MGD
2017	103,186	15.3		24.10	8.8		15.3	59%
2018	105,914	15.7		24.10	8.4		15.7	60%
2019	108,908	16.1		24.10	8.0		16.1	62%
2020	112,879	16.7		24.10	7.4		16.7	64%
2021	114,908	17.0		24.10	7.1		17.0	65%
2022	116,197	17.2		24.10	6.9		17.2	66%
2023	117,511	17.4		24.10	6.7		17.4	67%
2024	118,808	17.6		24.10	6.5		17.6	68%
2025	120,086	17.8		24.10	6.3		17.8	68%
2026	121,113	17.9		24.10	6.2		17.9	69%
2027	121,842	18.0		24.10	6.1		18.0	69%
2028	122,512	18.1		24.10	6.0		18.1	70%
2029	123,198	18.2		24.10	5.9		18.2	70%
2030	123,898	18.3		24.10	5.8		18.3	70%
2031	124,495	18.4		24.10	5.7		18.4	71%

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021

Notes *(References are to the column numbers on the previous page.)*

1. Fiscal Year starts October 1 and ends September 30.

2. Permanent Population Served on Oct. 1. Estimates and projections for the served area were prepared by the Collier County Comprehensive Planning Section on July 7, 2021. Populations are based on the Bureau of Economic and Business Research (BEBR) Medium Range growth rate applied through 2031. Permanent population is used in accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan.

   The new villages in the northeast wastewater service area will draw housing demand away from the existing wastewater service areas with significant remaining development potential. Therefore, their population projections are proportionally deducted from the projections for the north, south, and Orange Tree wastewater service areas. The portion taken from the north wastewater service area is 29 percent.

3. Max. Month Average Daily Flow (MADF) is obtained by multiplying the Permanent Population Served on Oct. 1 by 90 gallons per capita per day (gpcd), by a maximum monthly average daily flow (MADF) peaking factor of 1.21, and by a population adjustment factor of 1.36, and is expressed in million gallons per day (MGD). These values are the Level of Service (LOS) standards recommended in the latest master plan, with an adjustment factor to account for the 36% decrease in the service area population estimates since the 2020 AUIR, which formed the basis of the LOS recommendations. (Dividing historical MDD by a lower service area population would result in a higher LOS calculation.)

4. New Treatment Capacity is the additional treatment capacity in million gallons per day (MGD) placed into service by the start of the fiscal year through plant construction/expansion. Timing and capacity are tentative and may be adjusted with updates in development forecasts and adoption of developer agreements:

Fiscal Year	New Treatment Capacity	Comments and Cost Estimates
NA	0 MGD	The NCWRF site is built-out given current treatment technology on-site.

5. Permitted / Operational Treatment Capacity is the permitted treatment capacity at the beginning of the fiscal year in million gallons per day (MGD) with no deduction for the largest unit being out of service given that the NCWRF is designed for Class I reliability. Permitted / Operational Treatment Capacity is plotted in the chart on the next page.

6. Retained Operational Treatment Capacity is the Permitted / Operational Treatment Capacity minus the Max. Month Average Daily Flow (MADF).

7. Max. MADF Diverted to NCWRF is the max. flow that must be diverted to the NCWRF to avoid exceeding the permitted capacity of the SCWRF.

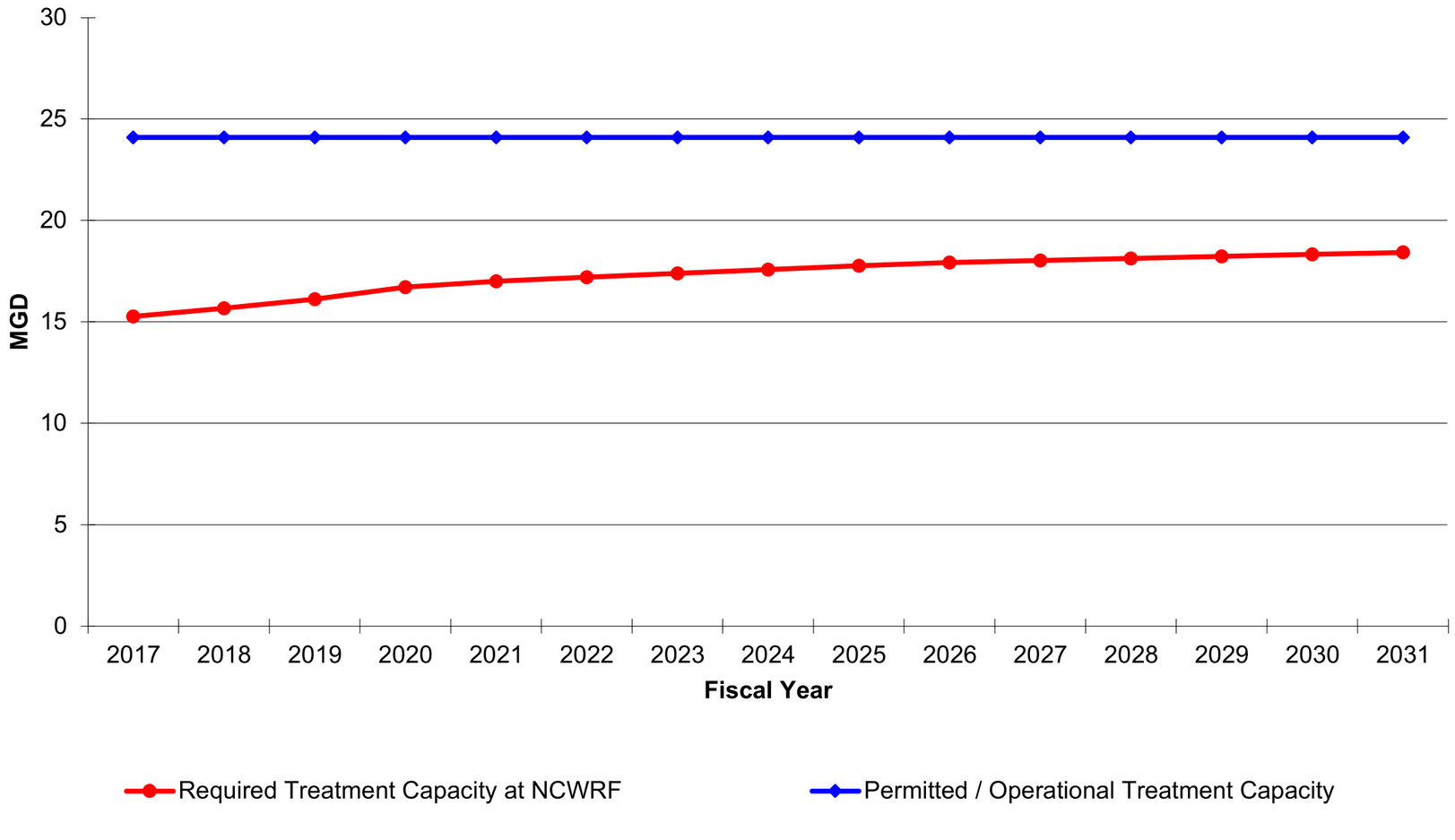
8. Required Treatment Capacity at NCWRF is equal to the Max. Month Average Daily Flow (MADF) plus the Max. MADF Diverted to NCWRF and is plotted in the chart on the next page.

9. Percent of Permitted Capacity is the maximum Three-Month Average Daily Flow (TMADF) as a percentage of Permitted / Operational Treatment Capacity. TMADF is calculated using a peaking factor of 1.12 per the latest master plan. Per FAC 62-600.405, capacity analysis reporting to the Department of Environmental Protection (DEP) is triggered once TMADF exceeds 50% of permitted capacity, as plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021



Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
GOLDEN GATE WASTEWATER (GGWWTP/CCWRF) SERVICE AREA

10/18/2021

1	2	3	4	5	6	7
Fiscal Year	Permanent Population Served on Oct. 1	Required Treatment Capacity at AADF MGD	New Treatment Capacity MGD	Permitted / Operational Treatment Capacity MGD	Retained Operational Treatment Capacity MGD	Percent of Permitted Capacity MGD
2017						
2018						
2019	12,768	1.1		1.50	0.35	89%
2020	12,790	1.2		1.50	0.35	89%
2021	12,802	1.2		1.50	0.35	89%
2022	12,812	1.2		1.50	0.35	89%
2023	12,821	1.2		1.50	0.35	89%
2024	14,186	1.3	3.50	5.00	3.72	30%
2025	14,446	1.3		5.00	3.70	30%
2026	14,547	1.3		5.00	3.69	30%
2027	14,595	1.3		5.00	3.69	30%
2028	14,642	1.3		5.00	3.68	31%
2029	14,691	1.3		5.00	3.68	31%
2030	14,739	1.3		5.00	3.67	31%
2031	14,786	1.3		5.00	3.67	31%

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
GOLDEN GATE WASTEWATER (GGWWTP/CCWRF) SERVICE AREA

10/18/2021

Notes *(References are to the column numbers on the previous page.)*

1. Fiscal Year starts October 1 and ends September 30.

2. Permanent Population Served on Oct. 1. Estimates and projections for the served area were prepared by the Collier County Comprehensive Planning Section on July 7, 2021. Populations are based on the Bureau of Economic and Business Research (BEBR) Medium Range growth rate applied through 2031. Permanent population is used in accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan.

   The population projections include the Golden Gate wastewater service area beginning in FY 2019 based on acquisition during FY 2018. The Golden Gate wastewater service area (approximately 4 square miles) presently includes a population of approximately 12,404 residents in Golden Gate City. Based on the implementation plan outlined in the Board adopted "Technical Feasibility Study for Acquisition of FGUA Water and Wastewater Assets in Golden Gate," Phase 3 will increase the population served to 15,000 within 20 years.

3. Required Treatment Capacity at AADF is obtained by multiplying the Permanent Population Served on Oct. 1 by 90 gallons per capita per day (gpcd) and is expressed in million gallons per day (MGD). This value is the Level of Service (LOS) standard recommended in the latest master plan.

4. New Treatment Capacity is the additional treatment capacity in million gallons per day (MGD) placed into service by the start of the fiscal year through plant construction/expansion. Timing and capacity are tentative and may be adjusted with updates in development forecasts and adoption of developer agreements:

Fiscal Year	New Treatment Capacity	Comments and Cost Estimates
2024	3.5 MGD	3.5 MGD expansion resulting in the 5 MGD Central County Water Reclamation Facility (CCWRF) to sustain sewer service to existing and future customers in the Golden Gate City and Activity Center #9 areas beginning in FY 2020 through FY 2024.

5. Permitted / Operational Treatment Capacity is the permitted treatment capacity at the beginning of the fiscal year in million gallons per day (MGD) with no deduction for the largest unit being out of service given that the GGWWTP is designed for Class I reliability. Permitted / Operational Treatment Capacity is plotted in the chart on the next page.

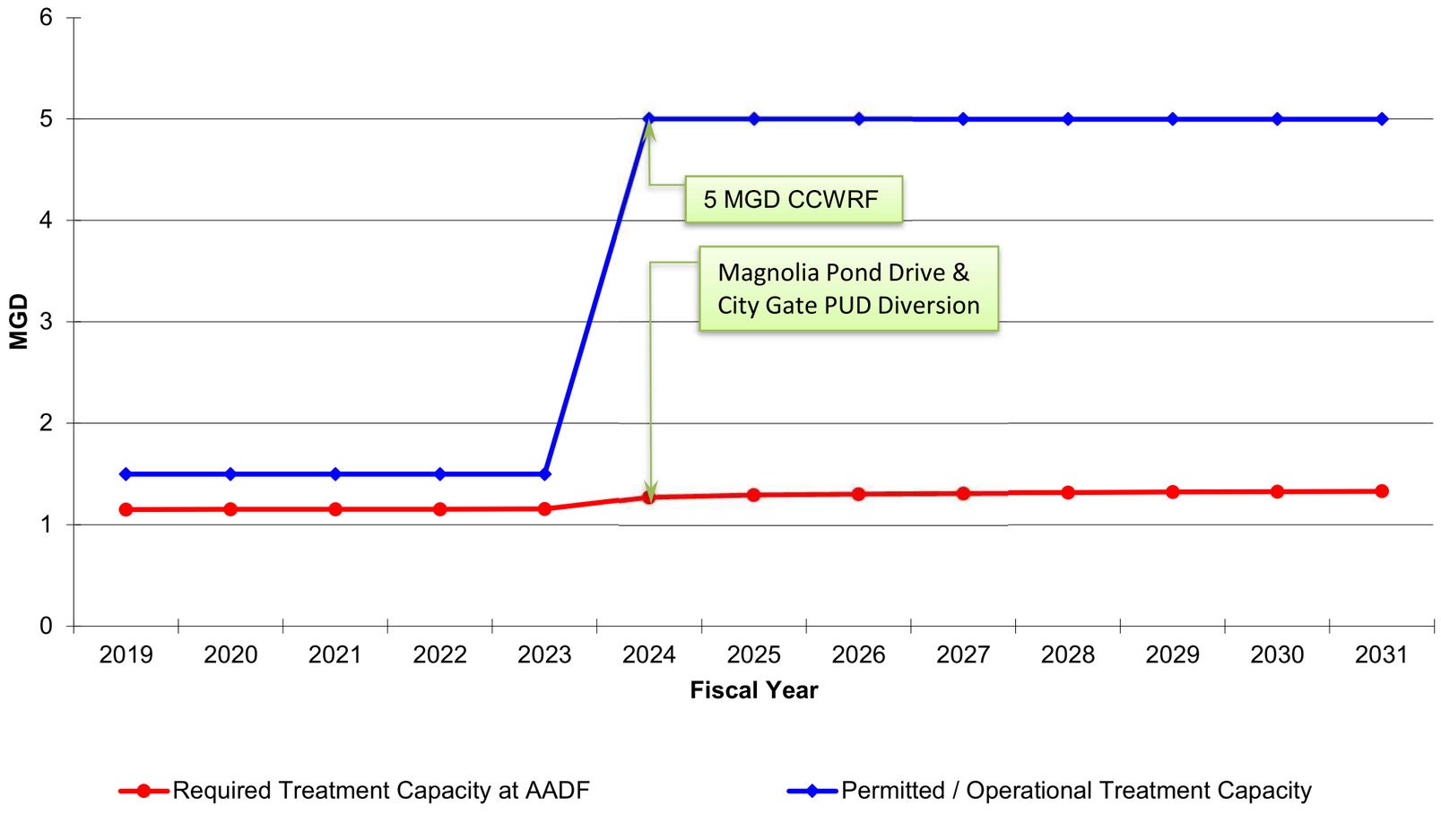
6. Retained Operational Treatment Capacity is the Permitted / Operational Treatment Capacity minus the Required Treatment Capacity at AADF.

7. Percent of Permitted Capacity is the maximum Three-Month Average Daily Flow (TMADF) as a percentage of Permitted / Operational Treatment Capacity. TMADF is calculated using a peaking factor of 1.16 per the latest master plan. Per FAC 62-600.405, capacity analysis reporting to the Department of Environmental Protection (DEP) is triggered once TMADF exceeds 50% of permitted capacity, as plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
GOLDEN GATE WASTEWATER (GGWWTP/CCWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021



Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
ORANGE TREE WASTEWATER TREATMENT PLANT (OTWWTP) SERVICE AREA
LOS: 90 gpcd

10/18/2021

1	2	3	4	5	6	7	8	9
Fiscal Year	Permanent Population Served on Oct. 1	Max. 3-Month Average Daily Flow (TMADF) MGD	New Treatment Capacity MGD	Permitted / Operational Treatment Capacity MGD	Retained Operational Treatment Capacity MGD	Max. TMADF Diverted to NESA MGD	Required Treatment Capacity at OT WWTP MGD	Percent of Permitted Capacity MGD
2017								
2018	4,293	0.46		0.75	0.29		0.46	61%
2019	4,523	0.48		0.75	0.27		0.48	65%
2020	4,978	0.53		0.75	0.22		0.53	71%
2021	5,416	0.58		0.75	0.17		0.58	77%
2022	5,765	0.62		0.75	0.13		0.62	82%
2023	6,121	0.66		0.75	0.09		0.66	87%
2024	6,471	0.69		0.75	0.06		0.69	92%
2025	6,816	0.73		0.75	0.02		0.73	97%
2026	7,092	0.76		0.75		0.01	0.75	100%
2027	7,285	0.78		0.75		0.03	0.75	100%
2028	7,463	0.80		0.75		0.05	0.75	100%
2029	7,644	0.82		0.75		0.07	0.75	100%
2030	7,829	0.84		0.75		0.09	0.75	100%
2031	7,986	0.86	-0.75			0.86		

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
ORANGE TREE WASTEWATER TREATMENT PLANT (OTWWTP) SERVICE AREA
LOS: 90 gpcd

10/18/2021

Notes *(References are to the column numbers on the previous page.)*

1. Fiscal Year starts October 1 and ends September 30.

2. Permanent Population Served on Oct. 1. Estimates and projections for the served area were prepared by the Collier County Comprehensive Planning Section on July 7, 2021. Populations are based on the Bureau of Economic and Business Research (BEBR) Medium Range growth rate applied through 2031. Permanent population is used in accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan.

   The population projections include the Orangetree wastewater service area beginning in FY 2018 based on acquisition during FY 2017.

   The new villages in the northeast wastewater service area will draw housing demand away from the existing wastewater service areas. Therefore, their population projections are proportionally deducted from the projections for the north, south, and Orange Tree wastewater service areas. The portion taken from the Orange Tree wastewater service area is 8 percent.

3. Max. 3-Month Average Daily Flow (TMADF) is obtained by multiplying the Permanent Population Served on Oct. 1 by 90 gallons per capita per day (gpcd) and by a maximum 3-month average daily flow (TMADF) peaking factor of 1.19 and is expressed in million gallons per day (MGD). These values are the Level of Service (LOS) standards recommended in the latest master plan.

4. New Treatment Capacity is the additional treatment capacity in million gallons per day (MGD) placed into service by the start of the fiscal year through plant construction/expansion. Timing and capacity are tentative and may be adjusted with updates in development forecasts and adoption of developer agreements:

Fiscal Year	New Treatment Capacity	Comments and Cost Estimates
2031	-0.75 MGD	The OTWWTP site will be vacated one year (at the latest) after the initial phase of the NECWRF is completed.

5. Permitted / Operational Treatment Capacity is the permitted treatment capacity at the beginning of the fiscal year in million gallons per day (MGD) with no deduction for the largest unit being out of service given that the OTWWTP is designed for Class I reliability. Permitted / Operational Treatment Capacity is plotted in the chart on the next page.

   Orangetree Utilities (OTU) was integrated into the CCWSD during FY 2017. Therefore, capacity first appears in FY 2018. Integrated assets include a 0.75 MGD (as currently sited) wastewater treatment plant that will continue to operate until the NECWRF is in service and reliably operational (approximately 12 months after final completion of the initial phase) or until it is determined that flows from the WWTP can be adequately processed at the NECWRF, per the Addendum to Integration Agreement, approved by the Board on July 13, 2021 (Agenda Item 16.C.20).

6. Retained Operational Treatment Capacity is the Permitted / Operational Treatment Capacity minus the Max. 3-Month Average Daily Flow (TMADF).

7. Max. TMADF Diverted to NESA is the max. flow that must be diverted to the NEWRF to avoid exceeding the permitted capacity of the OTWWTP.

8. Required Treatment Capacity at OT WWTP is equal to the Max. 3-Month Average Daily Flow (TMADF) plus the Max. TMADF Diverted to NESA and is plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
ORANGE TREE WASTEWATER TREATMENT PLANT (OTWWTP) SERVICE AREA
LOS: 90 gpcd

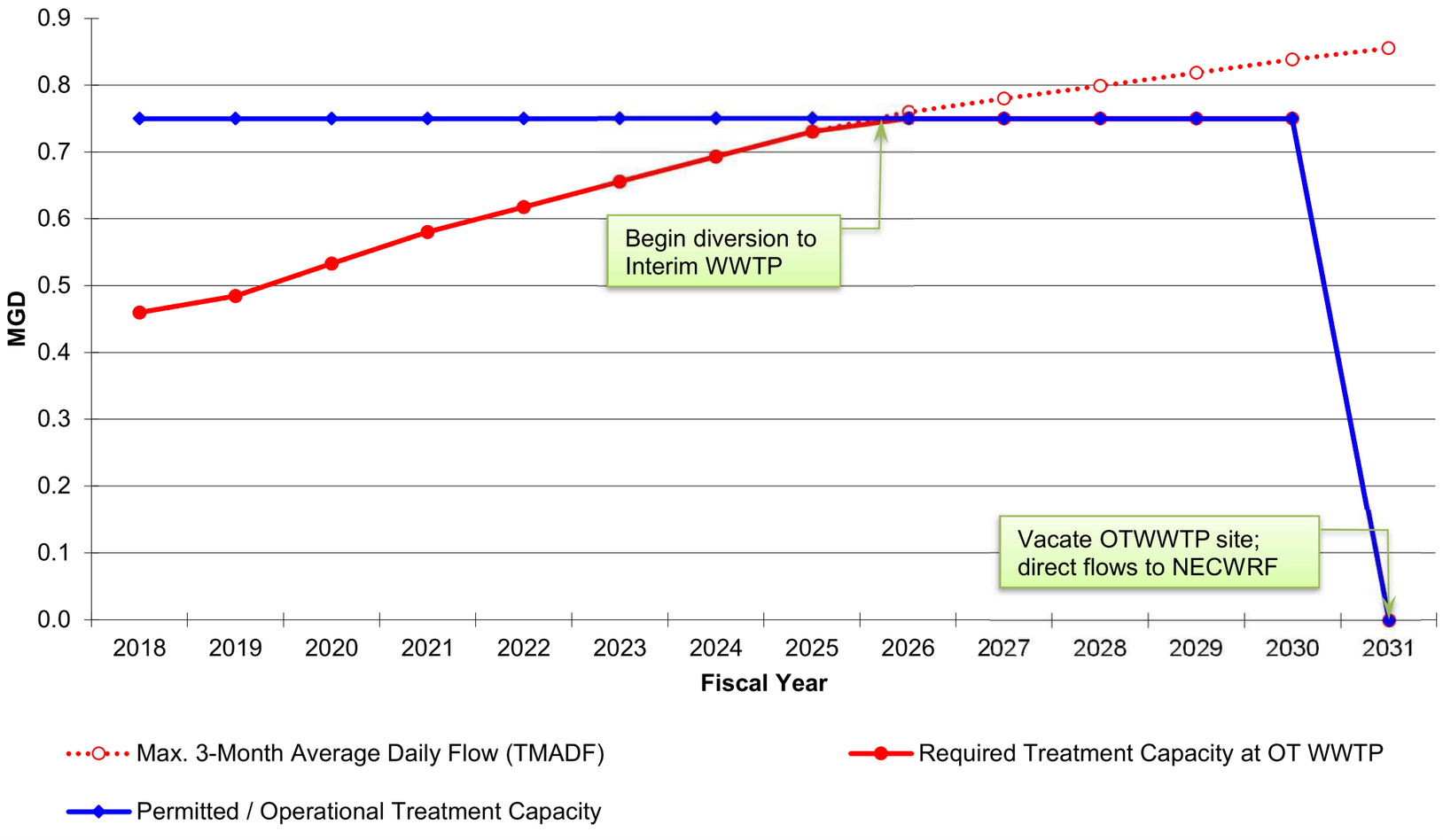
10/18/2021

9. Percent of Permitted Capacity is the maximum TMADF as a percentage of Permitted / Operational Treatment Capacity. Per FAC 62-600.405, capacity analysis reporting to the Department of Environmental Protection (DEP) is triggered once TMADF exceeds 50% of permitted capacity, as plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
ORANGE TREE WASTEWATER TREATMENT PLANT (OTWWTP) SERVICE AREA
LOS: 90 gpcd

10/18/2021



Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTHEAST WASTEWATER (INTERIM WWTP/NECWRF) SERVICE AREA

10/18/2021

1	2	3	4	5	6	7	8	9
Fiscal Year	Permanent Population Served on Oct. 1	Max. Month Average Daily Flow (MADF) MGD	New Treatment Capacity MGD	Permitted / Operational Treatment Capacity MGD	Retained Operational Treatment Capacity MGD	Max. MADF Diverted to NESA MGD	Required Treatment Capacity at NESA MGD	Percent of Permitted Capacity MGD
2017								
2018								
2019								
2020								
2021								
2022								
2023	109	0.0	1.5	1.50	1.5		0.0	1%
2024	372	0.0		1.50	1.5		0.0	2%
2025	891	0.1		1.50	1.4		0.1	6%
2026	1,668	0.2		1.50	1.3	0.0	0.2	12%
2027	2,698	0.3		1.50	1.2	0.0	0.3	20%
2028	3,793	0.4		1.50	1.1	0.1	0.5	29%
2029	4,889	0.5		1.50	1.0	0.1	0.6	37%
2030	5,984	0.7	4	5.50	4.8	0.1	0.7	13%
2031	7,397	0.8		5.50	4.7	0.9	1.7	29%

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTHEAST WASTEWATER (INTERIM WWTP/NECWRF) SERVICE AREA

10/18/2021

Notes *(References are to the column numbers on the previous page.)*

1. Fiscal Year starts October 1 and ends September 30.

2. Permanent Population Served on Oct. 1. Projections for the future northeast wastewater service area were obtained from the Collier Interactive Growth Model (CIGM) for the zones comprising the four planned developments--SkySail (FKA Hyde Park Village, FKA Winchester Lakes, FKA Collier Lakes), Rivergrass Village (FKA Rural Lands West), Immokalee Road Rural Village (FKA SR 846 Land Trust), and Hogan Island Village. Permanent population is used in accordance with the Board adopted 2014 Water, Wastewater, Irrigation Quality Water and Bulk Potable Water Master/CIP Plan.

   The new villages in the northeast wastewater service area will draw housing demand away from the existing wastewater service areas with significant remaining development potential. Therefore, their population projections are proportionally deducted from the projections for the north, south, and Orange Tree wastewater service areas (29, 63, and 8 percent respectively).

3. Max. Month Average Daily Flow (MADF) is obtained by multiplying the Permanent Population Served on Oct. 1 by 90 gallons per capita per day (gpcd) and by a maximum monthly average daily flow (MADF) peaking factor of 1.12, and is expressed in million gallons per day (MGD). These values are the Level of Service (LOS) standards recommended in the latest master plan.

4. New Treatment Capacity is the additional treatment capacity in million gallons per day (MGD) placed into service by the start of the fiscal year through plant construction/expansion. Timing and capacity are tentative and may be adjusted with updates in development forecasts and adoption of developer agreements:

Fiscal Year	New Treatment Capacity	Comments and Cost Estimates
2023	1.5 MGD	$28M interim WWTP, storage tanks and associated pipelines at the NEUF site to facilitate development in the northeast region of the county, outside the Orangetree and Orange Blossom Ranch PUDs, beginning in FY 2019 through FY 2023
2030	4 MGD	$108M Northeast County Water Reclamation Facility (NCEWRF) at the Northeast Utility Facilities (NEUF) site to sustain sewer service to customers in the new villages proposed in the Northeast Wastewater Service Area, beginning in FY 2026, to be online by FY 2030

5. Permitted / Operational Treatment Capacity is the permitted treatment capacity at the beginning of the fiscal year in million gallons per day (MGD) with no deduction for the largest unit being out of service given that the NECWRF is designed for Class I reliability. Permitted / Operational Treatment Capacity is plotted in the chart on the next page.

6. Retained Operational Treatment Capacity is the Permitted / Operational Treatment Capacity minus the Max. Month Average Daily Flow (MADF).

7. Max. MADF Diverted to NESA is the max. flow that must be diverted to the Northeast Service Area (Interim WWTP/NECWRF) to avoid exceeding the permitted capacity of the OTWWTP.

8. Required Treatment Capacity at NESA is equal to the Max. Month Average Daily Flow (MADF) plus the Max. MADF Diverted to NESA and is plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTHEAST WASTEWATER (INTERIM WWTP/NECWRF) SERVICE AREA

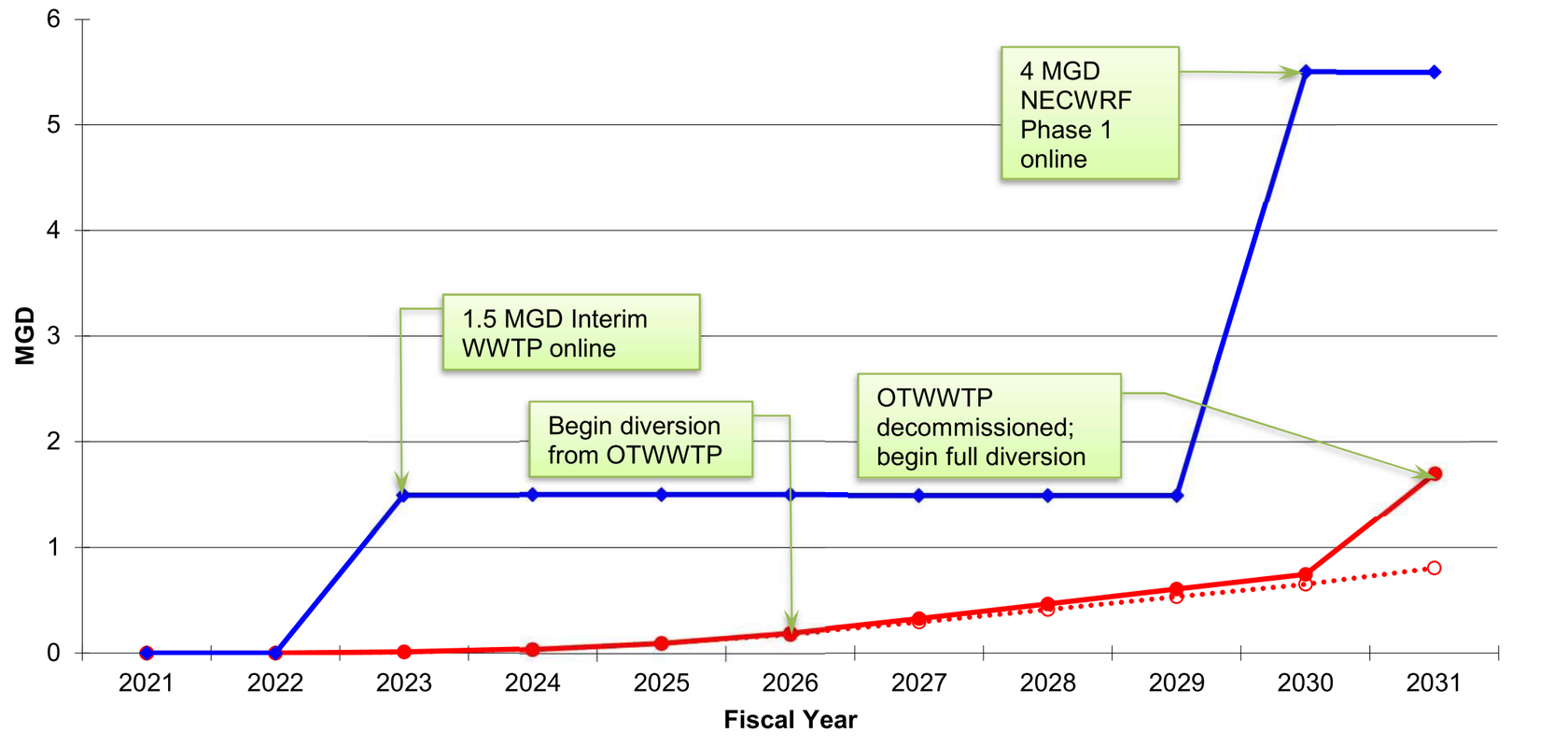
10/18/2021

9. Percent of Permitted Capacity is the maximum Three-Month Average Daily Flow (TMADF) as a percentage of Permitted / Operational Treatment Capacity. TMADF is calculated using a peaking factor of 1.12 per the latest master plan. Per FAC 62-600.405, capacity analysis reporting to the Department of Environmental Protection (DEP) is triggered once TMADF exceeds 50% of permitted capacity, as plotted in the chart on the next page.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

LEVEL OF SERVICE (LOS) STANDARD ASSESSMENT FOR
NORTHEAST WASTEWATER (INTERIM WWTP/NECWRF) SERVICE AREA
LOS: 90 gpcd

10/18/2021



Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER COLLECTION/TRANSMISSION SYSTEM CONSTRAINTS

10/18/2021

The following four areas will have future constrained wastewater conveyance capacity based on current growth patterns. The plan to address each constraint is discussed below and shown on the following "Wastewater Collection/Transmission System Constraints Map" map.

City Gate PUD/Activity Center #9

Background:
The original design of wastewater transmission facilities along Davis Boulevard did not anticipate service to the areas north of I-75. Proposed growth in Activity Center #9 and the surrounding area may require additional conveyance and treatment capacity.

Status:
A new force main along Magnolia Pond Drive to the Golden Gate City Wastewater Treatment Plant (GGWTP) was completed in February 2021, and will provide additional transmission capacity when activated. The 4 MGD Central County Water Reclamation Facility (CCWRF) design is planned to be complete in August 2021, after which construction will be solictited. The CCWRF will replace the aging GGWTP and is anticipated to be on-line in 2024.

Future Actions:
Complete. Construction of the CCWRF is addressed in the Golden Gate Wastewater Service Area LOS section.

Immokalee Road & Collier Blvd - COMPLETE

Background:
To make full use of the capacity of the North County Water Reclamation Facility (NCWRF) for wastewater service to the growing northeast region of Collier County, the 2014 Master Plan/CIP Plan recommended construction of a 24" force main from a new master pump station (MPS 167) at Heritage Bay west along Immokalee Road, then south along Logan Boulevard, then east a short distance along Vanderbilt Beach Road to MPS 104. Once completed, these improvements will relieve the burden on the 12" force main along Immokalee Road, which has become constrained due to extensive development of the corridor.

MPS 167, located at the south end of Heritage Bay Commons Tract G, serves as a wastewater booster pump station for the Heritage Bay PUD and current and future developments along Collier Blvd and east of Collier Blvd along Immokalee Road. MPS 167 currently routes wastewater to the NCWRF but will ultimately provide the flexibility to route wastewater to the future NECWRF.

Status:
Construction of the Immokalee Road/Logan Boulevard force main was completed in June 2021 and is in service, effectively relieving the wastewater transmission constraint.

Future Actions:
Complete. None required.

Collier County Government
Public Utilities Department
2021 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER COLLECTION/TRANSMISSION SYSTEM CONSTRAINTS

10/18/2021

Western Interconnect

Background:
A western interconnect is needed to manage growth in the south wastewater service area and to facilitate maintenance of existing force mains. A series of force main extensions and improvements to Master Pump Station (MPS) 309 are needed to move wastewater flows from the south wastewater service area to the north wastewater service area, where there is available treatment capacity. The force main along Livingston Road is divided into twelve phases generally extending from Radio Road to Immokalee Road.

Status:
Five phases were previously constructed ahead of development activity. Phase 2 was completed in August 2020 and Phases 6B/6C were completed in June 2021. Phases 7A, 7B , 9, MPS 309 and a Booster Pump Station are planned for FY 2022-2023, making the system fully operational. The final Phase 8 between Vanderbilt Beach Road and Immokalee Road will be completed if and when needed as dictated by flow projections.

Future Actions:
Construct the remaining phases in FY 2022-2023 including pump station capacity increases.

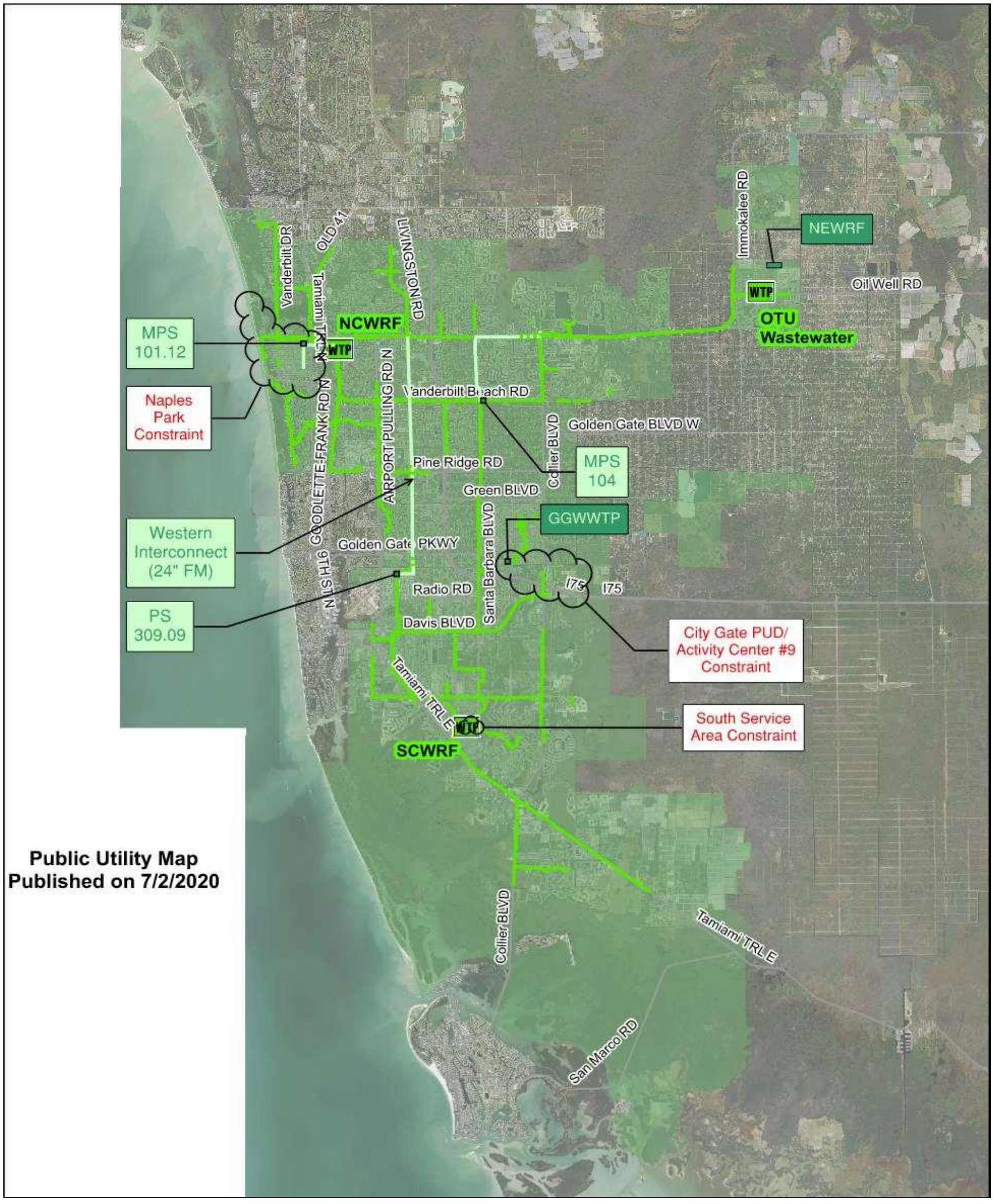
New Master Pump Station 101.12 (Naples Park)

Background:
MPS 101.00 currently serves areas north and south of 111th Avenue N. The new MPS 101.12 will allow the area to be divided such that MPS 101.00 will serve north of 111th Avenue N., and MPS 101.12 will serve the area south, which includes Naples Park. A new 8th Street gravity main and Creekside Road force main connected to MPS 101.12 will allow greater wastewater flows to be conveyed from the constrained Naples Park area.

Status:
As part of the Basin 101 Program, the needed infrastructure has been designed. The project is being implemented in phases, by first constructing the Creekside Road Force Main Phase 2 in FY 2022, which will provide additional wastewater transmission capacity.

Future Action:
Construct MPS 101.12 and the 8th Street Interceptor gravity main as funding is available.

Wastewater Collection/Transmission System Constraints



COLLIER COUNTY WATER - SEWER DISTRICT
SYSTEM UTILIZATION AND DIMINISHING CAPACITY REPORT ("CHECKBOOK")
REGIONAL WASTEWATER SYSTEMS
DATA: Current as of May 14, 2021

INTRODUCTION: The Checkbook uses the historical maximum 3-day average daily flow (TDADF) and monthly average daily flow (MADF) from the last 10 years as baseline scenarios. Unbuilt future commitments are then multiplied by standard peaking factors and added to the baselines to arrive at worst-case scenarios for future operational requirements.

Million Gallons per Day (MGD)

CURRENT AVAILABLE CAPACITY (BASED ON HISTORICAL EXTREME EVENT)	**WASTEWATER [1]**	
	NORTH	**SOUTH**
1. Existing Permitted/Operational Plant Capacity per 2020 AUIR (TMADF)	24.100	16.000
2a. 10-Year Maximum TDADF [2]	16.734	18.985
2b. 10-Year Maximum MADF [3]	12.105	11.000
3a. Peak Flow Diversion (TDADF) [5]	3.500	(3.500)
3b. Peak Flow Diversion (MADF) [5]	0.000	0.000
4a. Current Available Diminishing Capacity (TDADF) (Line 1 - Line 2a - Line 3a)	3.866	0.515
4b. Current Available Diminishing Capacity (MADF) (Line 1 - Line 2b - Line 3b)	11.995	5.001
CURRENT AVAILABILITY WITHOUT FUTURE COMMITMENTS		
5a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 4a / Line 1)**	**16%**	**3%**
5b. SYSTEM AVAILABILITY BASED ON PERMIT (MAX. MONTH) (Line 4b / Line 1)	50%	31%

Million Gallons per Day (MGD)

PROJECTED AVAILABLE CAPACITY (WITH FUTURE COMMITMENTS)	**WASTEWATER [1]**	
	NORTH	**SOUTH**
6. Total BCC-approved Active PUD commitments (Unbuilt per GMD PUD Master List) [4]	3.316	4.831
7a. Peak Flow Diversion (TDADF) [5]	4.120	(3.500)
7b. Peak Flow Diversion (MADF) [5]	0.452	0.000
8a. Projected Available Capacity (TDADF) (Line 1 - Line 2a - Line 6 - Line 7a)	(0.070)	(4.316)
8b. Projected Available Capacity (MADF) (Line 1 - Line 2b - Line 6 - Line 7b)	8.227	0.170
CURRENT AVAILABILITY WITH FUTURE COMMITMENTS		
9a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 8a / Line 1)**	**0%**	**-27%**
9b. SYSTEM AVAILABILITY BASED ON PERMIT (MAX. MONTH) (Line 8b / Line 1)	34%	1%

Million Gallons per Day (MGD)

FUTURE AVAILABLE CAPACITY (WITH EXPANSIONS)	**WASTEWATER [1]**	
	NORTH	**SOUTH**
10a. Expansions Within Next 12 Months (MADF)	0.000	0.000
10b. Expansions Within Next 12-24 Months (MADF)	0.000	0.000
11a. Future Available Capacity (TDADF) (Line 8a + Line 10a + Line 10b)	(0.070)	(4.316)
11b. Future Available Capacity (MADF) (Line 8b + Line 10a + Line10b)	8.227	0.170
FUTURE AVAILABILITY WITH EXPANSIONS		
12a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 11a / Line 1)**	**0%**	**-27%**
12b. SYSTEM AVAILABILITY BASED ON PERMIT (MAX. MONTH) (Line 11b / Line 1)	34%	1%

COLLIER COUNTY WATER - SEWER DISTRICT
SYSTEM UTILIZATION AND DIMINISHING CAPACITY REPORT ("CHECKBOOK")
REGIONAL WASTEWATER SYSTEMS
DATA: Current as of May 14, 2021

FOOTNOTES/QUALIFIERS:

[1] Wastewater North and South shown separately because of the finite capacity of the interconnect.

[2] Line 2a: Mo-Yr of Max. 3-Day Since May 2011 =>	Aug-17	Sep-20
[3] Line 2b: Mo-Yr of Max. Month Since May 2011 =>	Feb-19	Sep-20

[4] Capacity requested by outstanding active BCC-approved PUD units, as documented in the most current GMD PUD Master List. Built-out, closed-out, inactive, and discontinued PUD's are not included in line 5; only active PUD's are included. The outstanding PUD units are assumed to be developed before PUD closeout. Level of service for future commitments is defined by the latest rate study.

[5] Wastewater flows can be diverted from the south service area to the NCWRF via the East and West Interconnects and associated pump station improvements. The East Interconnect is an existing 20" force main along Santa Barbara Blvd that can divert flows from MPSs 312.00 and 313.00 to MPS 104.00, which ultimately discharges to the NCWRF. The West Interconnect is a proposed 24" force main along Livingston Road that will divert flows from MPSs 305.00, 309.00, and 310.00 ultimately to the NCWRF. The West Interconnect is being constructed in phases and will become operational in FY 2022. Peak flows can be diverted to MPS 167.00 (Heritage Bay) by the 0.75 MGD OT master pump station and force mains along Oil Well Road and Immokalee Road. MPS 167.00 will have the capability of diverting wastewater flows from the north and/or south service areas to the future NEWRF. These interconnects provide the operational flexibility needed to manage the peak flows forecasted by the Checkbook.

COLLIER COUNTY WATER - SEWER DISTRICT
SYSTEM UTILIZATION AND DIMINISHING CAPACITY REPORT ("CHECKBOOK")
SUB-REGIONAL WASTEWATER SYSTEMS
DATA: Current as of May 14, 2021

INTRODUCTION: The Checkbook uses the historical maximum 3-day average daily flow (TDADF), monthly average daily flow (MADF), and 3-month average daily flow (TMADF) from the last 10 years as baseline scenarios. Unbuilt future commitments are then multiplied by standard peaking factors and added to the baselines to arrive at worst-case scenarios for future operational requirements.

Million Gallons per Day (MGD)

CURRENT AVAILABLE CAPACITY (BASED ON HISTORICAL EXTREME EVENT)	WASTEWATER	
	NORTHEAST	CENTRAL
1. Existing Permitted/Operational Plant Capacity per 2020 AUIR (TMADF)	0.750	1.800
2a. 10-Year Maximum TDADF [1]	0.835	n/a
2b. 10-Year Maximum MADF [2]	0.647	1.548
2c. 10-Year Maximum TMADF [3]	0.512	1.368
3a. Twin Eagles Diversion (TDADF) (-0.11(Line 2a)) [4]	(0.092)	n/a
3b. Twin Eagles Diversion (MADF) (-0.11(Line 2b)) [4]	(0.071)	n/a
3c. Twin Eagles Diversion (TMADF) (-0.11(Line 2c)) [4]	(0.056)	n/a
3d. Peak Flow Diversion (TDADF) (Line 1 - Line 2a - Line 3a) (-0.75 min., 0 max.) [6]	0.000	n/a
3e. Peak Flow Diversion (MADF) (Line 1 - Line 2b - Line 3b) (-0.75 min., 0 max.) [6]	0.000	n/a
3f. Peak Flow Diversion (TMADF) (Line 1 - Line 2c - Line 3c) (-0.75 min., 0 max.) [6]	0.000	n/a
4a. Current Available Diminishing Capacity (TDADF) (Line 1 - Line 2a - Line 3a - Line 3d)	0.006	n/a
4b. Current Available Diminishing Capacity (MADF) (Line 1 - Line 2b - Line 3b - Line 3e)	0.174	0.252
4c. Current Available Diminishing Capacity (TMADF) (Line 1 - Line 2c - Line 3c - Line 3f)	0.294	0.432
CURRENT AVAILABILITY WITHOUT FUTURE COMMITMENTS		
5a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 4a / Line 1)**	**1%**	n/a
5b. SYSTEM AVAILABILITY BASED ON MAX. MONTH (Line 4b / Line 1)	23%	14%
5c. SYSTEM AVAILABILITY BASED ON MAX. 3-MONTH (Line 4c / Line 1)	39%	24%

Million Gallons per Day (MGD)

PROJECTED AVAILABLE CAPACITY (WITH FUTURE COMMITMENTS)	WASTEWATER	
	NORTHEAST	CENTRAL
6. Total BCC-Approved, Active PUD Commitments (Unbuilt per GMD PUD Master List) [5]	0.626	0.006
7a. Peak Flow Diversion (TDADF) (Line 1 - Line 2a - Line 3a - Line 6) (-0.75 min., 0 max.) [6]	(0.620)	n/a
7b. Peak Flow Diversion (MADF) (Line 1 - Line 2b - Line 3b - Line 6) (-0.75 min., 0 max.) [6]	(0.452)	n/a
7c. Peak Flow Diversion (TMADF) (Line 1 - Line 2c - Line 3c - Line 6) (-0.75 min., 0 max.) [6]	(0.332)	n/a
8a. Projected Available Capacity (TDADF) (Line 1 - Line 2a - Line 3a - Line 6 - Line 7a)	0.000	n/a
8b. Projected Available Capacity (MADF) (Line 1 - Line 2b - Line 3b - Line 6 - Line 7b)	0.000	0.246
8c. Projected Available Capacity (TMADF) (Line 1 - Line 2c - Line 3c - Line 6 - Line 7c)	0.000	0.426
CURRENT AVAILABILITY WITH FUTURE COMMITMENTS		
9a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 8a / Line 1)**	**0%**	n/a
9b. SYSTEM AVAILABILITY BASED ON MAX. MONTH (Line 8b / Line 1)	0%	14%
9c. SYSTEM AVAILABILITY BASED ON MAX. 3-MONTH (Line 8c / Line 1)	0%	24%

Million Gallons per Day (MGD)

FUTURE AVAILABLE CAPACITY (WITH EXPANSIONS)	WASTEWATER	
	NORTHEAST	CENTRAL
10a. Expansions Within Next 12 Months (TMADF)	0.000	0.000
10b. Expansions Within Next 12-24 Months (TMADF)	1.500	0.000
11a. Future Available Capacity (TDADF) (Line 8a + Line 10a + Line 10b)	1.500	n/a
11b. Future Available Capacity (MADF) (Line 8b + Line 10a + Line10b)	1.500	0.246
11c. Future Available Capacity (TMADF) (Line 8c + Line 10a + Line 10b)	1.500	0.426
FUTURE AVAILABILITY WITH EXPANSIONS		
12a. **SYSTEM AVAILABILITY BASED ON MAX. 3-DAY (Line 11a / Line 1)**	**200%**	n/a
12b. SYSTEM AVAILABILITY BASED ON MAX. MONTH (Line 11b / Line 1)	200%	14%
12c. SYSTEM AVAILABILITY BASED ON MAX. 3-MONTH (Line 11c / Line 1)	200%	24%

COLLIER COUNTY WATER - SEWER DISTRICT
SYSTEM UTILIZATION AND DIMINISHING CAPACITY REPORT ("CHECKBOOK")
SUB-REGIONAL WASTEWATER SYSTEMS
DATA: Current as of May 14, 2021

FOOTNOTES/QUALIFIERS:

[1] Line 2a: Mo-Yr of Max. 3-Day per Available Data Since May 2011 =>	Sep-17	n/a
[2] Line 2b: Mo-Yr of Max. Month per Available Data Since May 2011 =>	Sep-17	Aug-17
[3] Line 2c: Mo-Yr of Max. 3-Month per Available Data Since May 2011 =>	Oct-17	Sep-16

[4] The sub-regional Northeast Utility Facilities (former OTU) previously served all customers in the Orange Tree and Orange Blossom Ranch PUDs as well as the Twin Eagles subdivision, but flow from Twin Eagles was diverted to the NCWRF wastewater collection/transmission system in May 2019. Since the historical max. wastewater flows occurred prior to any services being transferred, values are reduced by eleven percent (11%) based on billing data from September 2017, the month in which the maximums occurred.

[5] Capacity requested by outstanding active BCC-approved PUD units, as documented in the most current GMD PUD Master List. Built-out, closed-out, inactive, and discontinued PUD's are not included in line 5; only active PUD's are included. The outstanding PUD units are assumed to be developed before PUD closeout. Level of service for future commitments is defined by the latest rate study.

[6] Peak flows and effluent will be diverted to the NCWRF by the 0.75 MGD OT pump station and Oil Well Road force main; Heritage Bay master pump station; and new and existing force mains along Oil Well Rd, Immokalee Rd, Logan Blvd, Vanderbilt Beach Rd, and Goodlette-Frank Rd.

EXHIBIT "A"
COLLIER COUNTY SCHEDULE OF CAPITAL IMPROVEMENTS
FISCAL YEARS 2022-2026

WASTEWATER TREATMENT SYSTEM PROJECTS								
CIE #	PROJECT	CONSTRUCTION SCHEDULE NOTES	$ AMOUNT FY 2022	$ AMOUNT FY 2023	$ AMOUNT FY 2024	$ AMOUNT FY 2025	$ AMOUNT FY 2026	$ AMOUNT TOTAL
	Debt Service		$11,681,000	$13,710,000	$13,716,000	$13,038,000	$11,414,000	$63,559,000
	Expansion Related Projects - Other		$80,800,000	$0	$0	$0	$105,937,000	$186,737,000
	Replacement & Rehabilitation Projects - Other		$50,277,000	$37,035,000	$39,985,000	$37,875,000	$38,130,000	$203,302,000
	Departmental Capital		$550,000	$561,000	$572,000	$583,000	$595,000	$2,861,000
	Reserve for Contingencies - Replacement & Rehabilitation Projects		$2,169,000	$3,704,000	$3,999,000	$3,788,000	$3,813,000	$17,473,000
	WASTEWATER TREATMENT SYSTEM PROJECT TOTALS		$145,477,000	$55,010,000	$58,272,000	$55,284,000	$159,889,000	$473,932,000

REVENUE KEY - REVENUE SOURCE		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	TOTAL
SIF - Wastewater System Development Fees / Impact Fees		$7,900,000	$7,900,000	$7,900,000	$7,900,000	$7,900,000	$39,500,000
B1 - Bonds/ Loans		$97,050,000	$0	$0	$0	$105,937,000	$202,987,000
Cares Act Funding		$7,000,000	$0	$0	$0	$0	$7,000,000
SCA - Wastewater Capital Account - Transfers		$550,000	$561,000	$572,000	$583,000	$595,000	$2,861,000
REV - Rate Revenue		$32,977,000	$46,549,000	$49,800,000	$46,801,000	$45,457,000	$221,584,000
REVENUE TOTAL		$145,477,000	$55,010,000	$58,272,000	$55,284,000	$159,889,000	$473,932,000

NOTE: Collier County has adopted a two-year Concurrency Management System. Figures provided for years three, four and five of this Schedule of Capital Improvements are not part of the Concurrency Management System but must be financially feasible with a dedicated revenue source or an alternative revenue source if the dedicated revenue source is not realized. Revenue sources are estimates only; both the mix of sources and amounts will change when a rate study is conducted.

CIE consistent with Board-approved FY22 budget

DATA SOURCES:

Expansion Related and Replacement & Rehabilitation Projects:
FY 2022 is obtained from the 2022 Proposed Budget for R&R projects. Expansion projects require additional funding and therefore not included in the budget.
FY 2023 to FY 2026 are estimated project costs.

Department Capital:
FY 2022 is obtained from the 2022 Proposed Budget, split 50/50 between Water and Wastewater.
FY 2023 to FY 2026 are 2% increases over each fiscal year (pursuant to CPI adjustments per Board policy).

Debt Service:
All years are obtained from the current Collier County Water-Sewer District Financial Statements and Other Reports including Summary of Debt Service requirements to maturity. Total Debt Service amount is split 50/50 between Water and Wastewater.

Reserve for Contingencies - Replacement and Rehabilitation Projects:
As per Florida Statues, reserve for contingencies is up to 10% of expenses.

APPENDIX H
FUTURE COSTS AND REVENUES BY TYPE OF PUBLIC FACILITY
FISCAL YEARS 2027 - 2031

WASTEWATER PROJECTS								
CIE #	PROJECT	CONSTRUCTION SCHEDULE NOTES	$ AMOUNT FY 2027	$ AMOUNT FY 2028	$ AMOUNT FY 2029	$ AMOUNT FY 2030	$ AMOUNT FY 2031	$ AMOUNT TOTAL
	Debt Service		$10,075,000	$9,891,000	$10,256,000	$10,674,000	$10,670,000	$51,566,000
	Expansion Related Projects - Other		$0	$7,500,000	$0	$0	$0	$7,500,000
	Replacement & Rehabilitation Projects - Other		$33,140,000	$31,770,000	$32,770,000	$33,270,000	$31,770,000	$162,720,000
	Departmental Capital		$607,000	$619,000	$631,000	$644,000	$657,000	$3,158,000
	Reserve for Contingencies - Replacement & Rehabilitation Projects		$3,314,000	$3,177,000	$3,277,000	$3,327,000	$3,177,000	$16,272,000
	WASTEWATER TREATMENT SYSTEM PROJECT TOTALS		$47,136,000	$52,957,000	$46,934,000	$47,915,000	$46,274,000	$241,216,000

REVENUE KEY - REVENUE SOURCE		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	TOTAL
SIF - Wastewater System Development Fees / Impact Fees		$7,900,000	$7,900,000	$7,900,000	$7,900,000	$7,900,000	$39,500,000
B1 - Bonds/ Loans		$0	$7,500,000	$0	$0	$0	$7,500,000
Cares Act Funding		$0	$0	$0	$0	$0	$0
SCA - Wastewater Capital Account - Transfers		$607,000	$619,000	$631,000	$644,000	$657,000	$3,158,000
REV - Rate Revenue		$38,629,000	$36,938,000	$38,403,000	$39,371,000	$37,717,000	$191,058,000
REVENUE TOTAL		$47,136,000	$52,957,000	$46,934,000	$47,915,000	$46,274,000	$241,216,000

NOTE: Figures provided for years six through ten are estimates of revenues versus project costs but do not constitute a long-term concurrency system. Revenue sources are estimates only; both the mix of sources and amounts will change when a rate study is conducted.