

COUNTY POTABLE WATER

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Collier County Government
Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

COLLIER COUNTY WATER SEWER DISTRICT - POTABLE WATER SYSTEM

Introduction:

The Public Utilities Division's 2011 AUIR submittals are based on "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2031. There are two notable changes from the 2010 Collier County Water-Sewer District (CCWSD) Potable Water System AUIR:

1. The population projections from Comprehensive Planning increased due to updates to the Collier County Water-Sewer District Map (W-9) and the inclusion of all population inside the boundaries of the District.
2. The increase in the population projections led to the need for the Northeast Regional Water Treatment Plant (NERTWP) to be reactivated, permitted, and constructed by 2024.

Recommendation:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2011 CCWSD Potable Water System AUIR.

**POTABLE WATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SERVICE AREA**

August 04, 2011

1	2	3	4	5	6	7	8	9	10	11
Fiscal Year	Peak Population	Required Treatment Capacity @ 170 gpcd	Required Capacity Increase from Previous Year	Total Constructed Plant Capacity On-line	New Plant Constructed Capacity	Total Constructed Plant Capacity	Total Treatment Reliable System Capacity	Retained/ (Deficit) Constructed System Capacity	Retained/ (Deficit) Reliable System Capacity	Retained/ (Deficit) Reliable Capacity Target Values
		MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD
2010	202,700	34.46		52.00		52.00	46.80	17.54	12.34	0.9 (Min) - 9.5 (Max)
2011	207,657	35.30	0.84	52.00		52.00	46.80	16.70	11.50	0.9 (Min) - 9.5 (Max)
2012	212,705	36.16	0.86	52.00		52.00	46.80	15.84	10.64	0.9 (Min) - 9.5 (Max)
2013	217,846	37.03	0.87	52.00		52.00	46.80	14.97	9.77	0.9 (Min) - 9.5 (Max)
2014	223,080	37.92	0.89	52.00		52.00	46.80	14.08	8.88	0.9 (Min) - 9.5 (Max)
2015	228,676	38.87	0.95	52.00		52.00	46.80	13.13	7.93	0.9 (Min) - 9.5 (Max)
2016	234,646	39.89	1.01	52.00		52.00	46.80	12.11	6.91	0.9 (Min) - 9.5 (Max)
2017	240,734	40.92	1.03	52.00	2.00	54.00	48.60	13.08	7.68	0.9 (Min) - 9.5 (Max)
2018	246,942	41.98	1.06	54.00		54.00	48.60	12.02	6.62	0.9 (Min) - 9.5 (Max)
2019	253,274	43.06	1.08	54.00		54.00	48.60	10.94	5.54	0.9 (Min) - 9.5 (Max)
2020	259,378	44.09	1.04	54.00		54.00	48.60	9.91	4.51	0.9 (Min) - 9.5 (Max)
2021	265,245	45.09	1.00	54.00		54.00	48.60	8.91	3.51	0.9 (Min) - 9.5 (Max)
2022	271,216	46.11	1.02	54.00		54.00	48.60	7.89	2.49	0.9 (Min) - 9.5 (Max)
2023	277,294	47.14	1.03	54.00		54.00	48.60	6.86	1.46	0.9 (Min) - 9.5 (Max)
2024	290,849	49.44	2.30	54.00	10.00	64.00	57.60	14.56	8.16	0.9 (Min) - 9.5 (Max)
2025	296,827	50.46	1.02	64.00		64.00	57.60	13.54	7.14	0.9 (Min) - 9.5 (Max)
2026	302,466	51.42	0.96	64.00		64.00	57.60	12.58	6.18	0.9 (Min) - 9.5 (Max)
2027	308,192	52.39	0.97	64.00		64.00	57.60	11.61	5.21	0.9 (Min) - 9.5 (Max)
2028	314,007	53.38	0.99	64.00		64.00	57.60	10.62	4.22	0.9 (Min) - 9.5 (Max)
2029	319,912	54.38	1.00	64.00		64.00	57.60	9.62	3.22	0.9 (Min) - 9.5 (Max)
2030	325,453	55.33	0.94	64.00		64.00	57.60	8.67	2.27	0.9 (Min) - 9.5 (Max)
2031	330,618	56.21	0.88	64.00		64.00	57.60	7.79	1.39	0.9 (Min) - 9.5 (Max)

Collier County Government
Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

**POTABLE WATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SERVICE AREA**

August 04, 2011

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

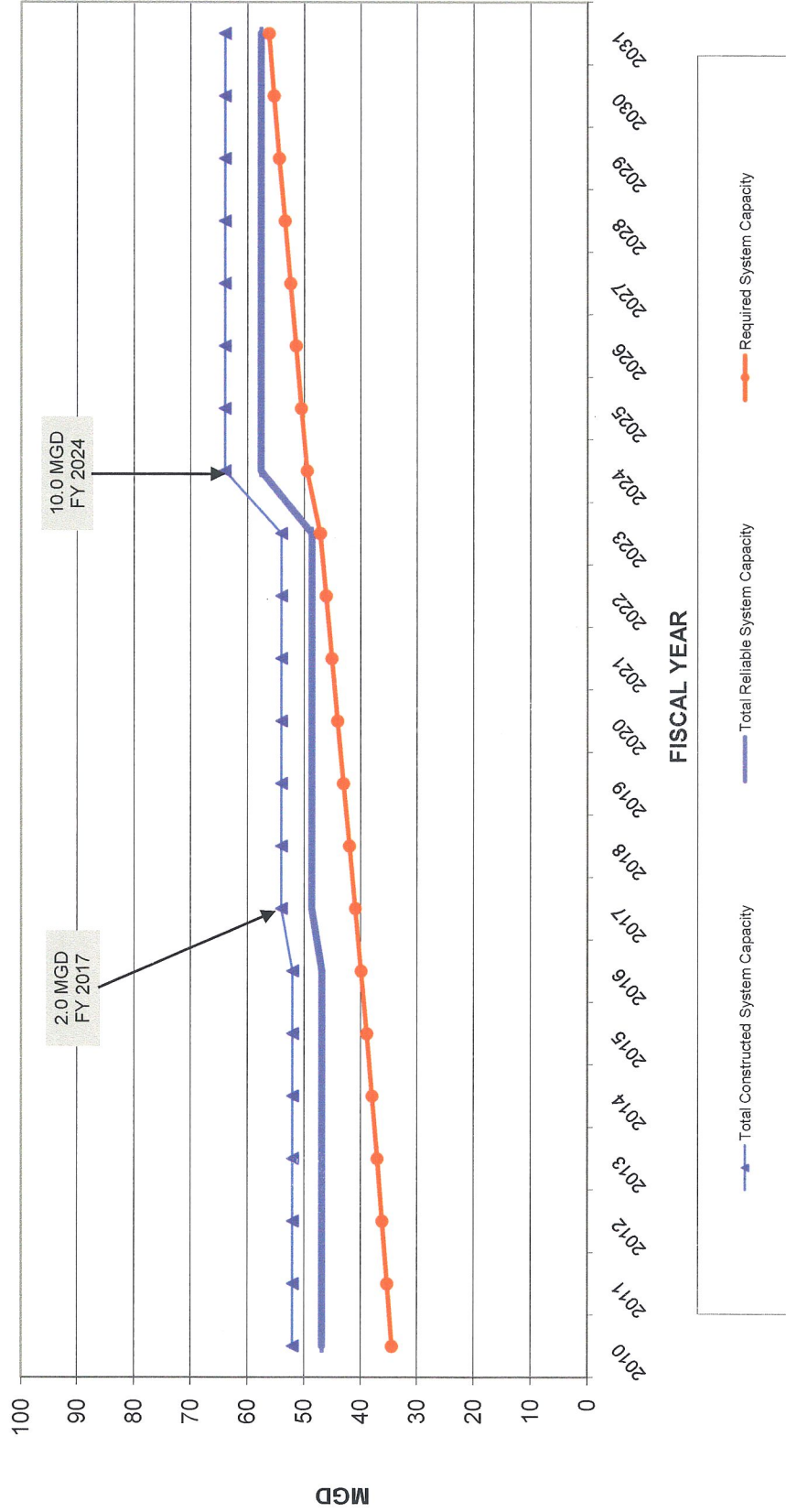
1. Fiscal Year starts October 1 and ends September 30.
2. Peak Population. Estimates and projections for the existing service area are based on "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2031. The peak population projections include the Orange Tree service area beginning in FY 2024.
3. Required Treatment Capacity @ 170 gpcd is obtained by multiplying the Peak Population (Column 2) times 170 gallons per capita per day (gpcd). 170 gpcd is the established Level of Service Standard (LOSS) as adopted in the 2008 Water Master Plan Update approved by the Board of County Commissioners on June 24, 2008. See graph on page W-4.
4. Required Treatment Capacity Increase from Previous Year is the increase of the Required Treatment Capacity @ 170 gpcd (Column 3) for the year listed from the previous year.
5. Total Constructed Plant Capacity On-line is the total finished water treatment capacity at the beginning of the Fiscal Year in Million Gallons per Day (MGD). All plant capacities are stated in Maximum Month Daily Demand (MMDD).
6. New Plant Constructed Capacity schedule is as follows:

Fiscal year	New Plant Constructed	Description	Source of Information
2017	2.0 MGD	High Pressure RO expansion to North County Regional Water Treatment Plant (NCRWTP)	2011 Capital Improvement Plan Analysis
2024	10 MGD	New Northeast Regional Water Treatment Plant (NERWTP)	Recommended based on June 29, 2011 Comprehensive Planning Section population projections

7. Total Constructed Plant Capacity is total of Total Constructed Plant Capacity On-line (Column 5) plus New Plant Constructed Capacity (Column 6). See graph on page W-4.
8. Total Treatment Reliable System Capacity is the total available system treatment capacity necessary to meet concurrency requirements, and is defined herein as 90-percent of the Total Constructed Plant Capacity (Column 7). See graph on page W-4.
9. Retained/(Deficit) Constructed System Capacity is the difference between Total Constructed Plant Capacity (Column 7) and Required Treatment Capacity (Column 3).
10. Retained/(Deficit) Reliable System Capacity is the difference between Total Treatment Reliable System Capacity (Column 8) and Required Treatment Capacity (Column 3).
11. Retained/(Deficit) Reliable System Capacity Target Values for planning purposes are 0.9 MGD minimum and 9.5 MGD maximum through FY 2031. The target minimum capacities represent the projected increase in the next year's demand and the target maximum capacities represent the projected increase in demand for the next eight years.

Collier County Government
 Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AJIR)
POTABLE WATER SYSTEM
 Level of Service Standard: 170 gpccd

August 04, 2011



**NORTHEAST POTABLE WATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SERVICE AREA**

August 04, 2011

1	2	3	4	5	6	7	8	9	10	11
Fiscal Year	Peak Population	Required Treatment Capacity @ 170 gpcd	Required Treatment Capacity Increase from Previous Year	Total Constructed Plant Capacity On-line	New Plant Constructed Capacity	Total Constructed Plant Capacity	Total Treatment Reliable System Capacity	Retained/ (Deficit) Constructed System Capacity	Retained/ (Deficit) Reliable System Capacity	Retained/ (Deficit) Reliable Capacity Target Values
		MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD
2010	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2011	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2012		0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2013	6,091	1.04	1.04	0.00	1.90	1.90	1.71	0.86	0.67	.02 (Min) - 0.2 (Max)
2014	6,193	1.05	0.02	1.90		1.90	1.71	0.85	0.66	.02 (Min) - 0.2 (Max)
2015	6,302	1.07	0.02	1.90		1.90	1.71	0.83	0.64	.02 (Min) - 0.2 (Max)
2016	6,418	1.09	0.02	1.90		1.90	1.71	0.81	0.62	.02 (Min) - 0.2 (Max)
2017	6,537	1.11	0.02	1.90		1.90	1.71	0.79	0.60	.02 (Min) - 0.2 (Max)
2018	6,658	1.13	0.02	1.90		1.90	1.71	0.77	0.58	.02 (Min) - 0.2 (Max)
2019	6,781	1.15	0.02	1.90		1.90	1.71	0.75	0.56	.02 (Min) - 0.2 (Max)
2020	6,900	1.17	0.02	1.90		1.90	1.71	0.73	0.54	.02 (Min) - 0.2 (Max)
2021	7,014	1.19	0.02	1.90		1.90	1.71	0.71	0.52	.02 (Min) - 0.2 (Max)
2022	7,130	1.21	0.02	1.90		1.90	1.71	0.69	0.50	.02 (Min) - 0.2 (Max)
2023	7,249	1.23	0.02	1.90		1.90	1.71	0.67	0.48	.02 (Min) - 0.2 (Max)
2024	0	0.00	-1.23	1.90	-1.90	0.00	0.00	0.00	0.00	.02 (Min) - 0.2 (Max)
2025	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2026	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2027	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2028	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2029	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2030	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
2031	0	0.00	0.00	0.00		0.00	0.00	0.00	0.00	

Collier County Government
Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

**NORTHEAST POTABLE WATER SYSTEM - TREATMENT FACILITIES
LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SERVICE AREA**

August 04, 2011

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

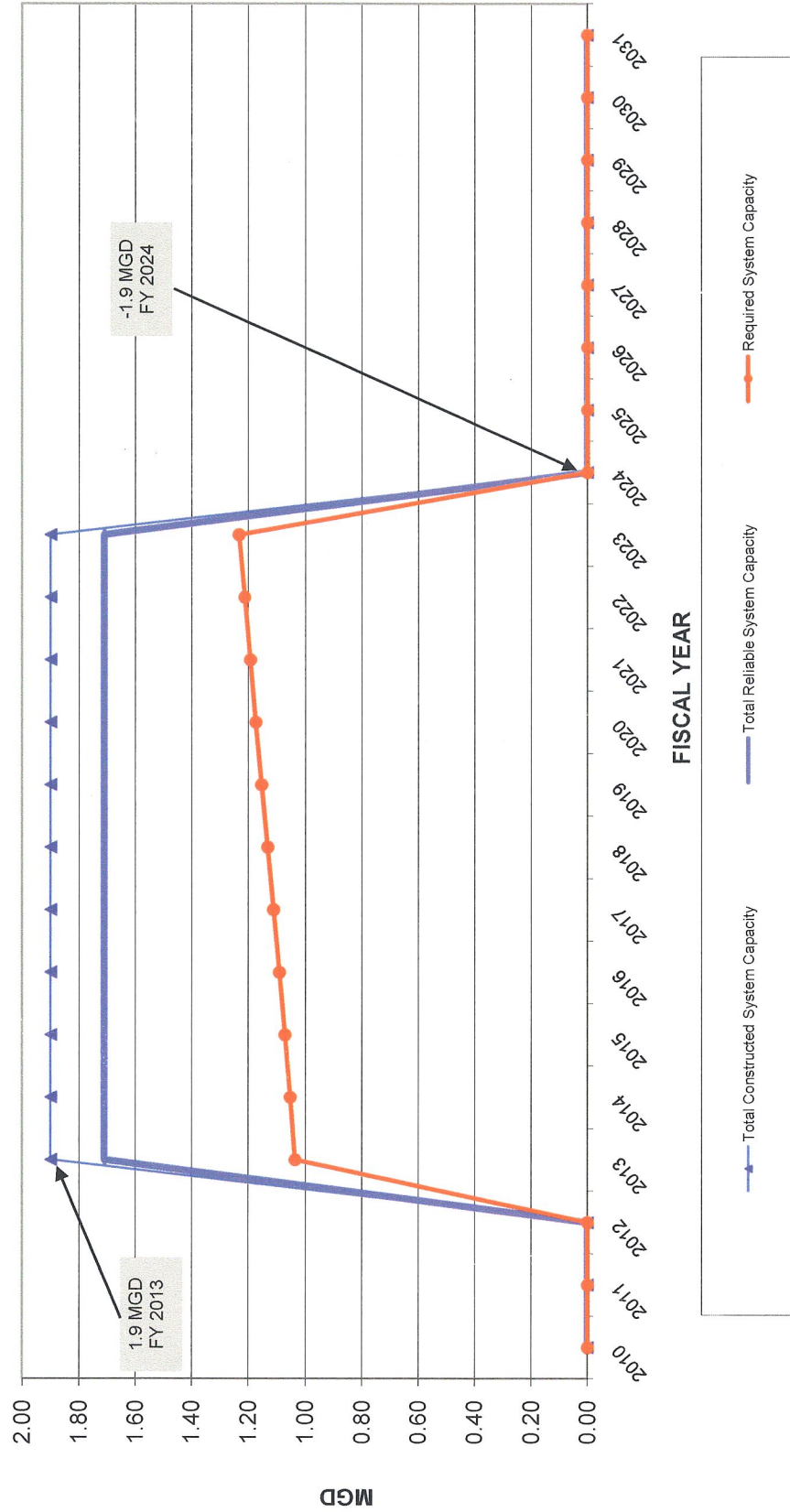
1. Fiscal Year starts October 1 and ends September 30.
2. Peak Population. Estimates and projections for the existing service area are based on "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are based on using Bureau of Economic and Business Research (BEER) Medium Range growth rate through 2031. The peak populations are the Orange Tree service area. In 2024, the Orange Tree Water Treatment Plant will be decommissioned as the NERWTP begins operation and the Orange Tree Service Area becomes part of the total service area.
3. Required Treatment Capacity @ 170 gpcd is obtained by multiplying the Peak Population (Column 2) times 170 gallons per capita per day (gpcd). 170 gpcd is the established Level of Service Standard (LOSS) as adopted in the 2008 Water Master Plan Update approved by the Board of County Commissioners on June 24, 2008. See graph on page W-7.
4. Required Treatment Capacity Increase from Previous Year is the increase of the Required Treatment Capacity @ 170 gpcd (Column 3) for the year listed from the previous year.
5. Total Constructed Plant Capacity On-line is the total finished water treatment capacity at the beginning of the Fiscal Year in Million Gallons per Day (MGD). All plant capacities are stated in Maximum Month Daily Demand (MMDD).
6. New Plant Constructed Capacity schedule is as follows:

Fiscal year	New Plant Constructed	Description	Source of Information
2013	1.9 MGD	Existing 1.9 MGD Orange Tree WTP continues to serve Orange Tree Service Area.	Capacity based on County meeting with Orange Tree Utilities on July 05, 2007.
2024	-1.9 MGD	Existing 1.9 MGD Orange Tree WTP decommissioned as NERWTP begins operation to serve Orange Tree Service Area.	Recommended based on June 29, 2011 Comprehensive Planning Section population projections.

7. Total Constructed Plant Capacity is total of Total Constructed Plant Capacity On-line (Column 5) plus New Plant Constructed Capacity (Column 6). See graph on page W-7.
8. Total Treatment Reliable System Capacity is the total available system treatment capacity necessary to meet concurrency requirements, and is defined herein as 90-percent of the Total Constructed Plant Capacity (Column 7). See graph on page W-7.
9. Retained/(Deficit) Constructed System Capacity is the difference between Total Constructed Plant Capacity (Column 7) and Required Treatment Capacity (Column 3).
10. Retained/(Deficit) Reliable System Capacity is the difference between Total Treatment Reliable System Capacity (Column 8) and Required Treatment Capacity (Column 3).
11. Retained/(Deficit) Reliable System Capacity Target Values for planning purposes are .02 MGD minimum and 0.2 MGD maximum through FY 2024. The target minimum capacities represent the projected increase in the next year's demand and the target maximum capacities represent the projected increase in demand for the next eight years.

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 Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AUJR)
NORTHEAST POTABLE WATER SYSTEM
 Level of Service Standard: 170 gpcd

August 04, 2011



Collier County Government
Public Utilities Division
2011 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

**POTABLE WATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT
CHANGES FROM 2010 AUIR**

August 04, 2011

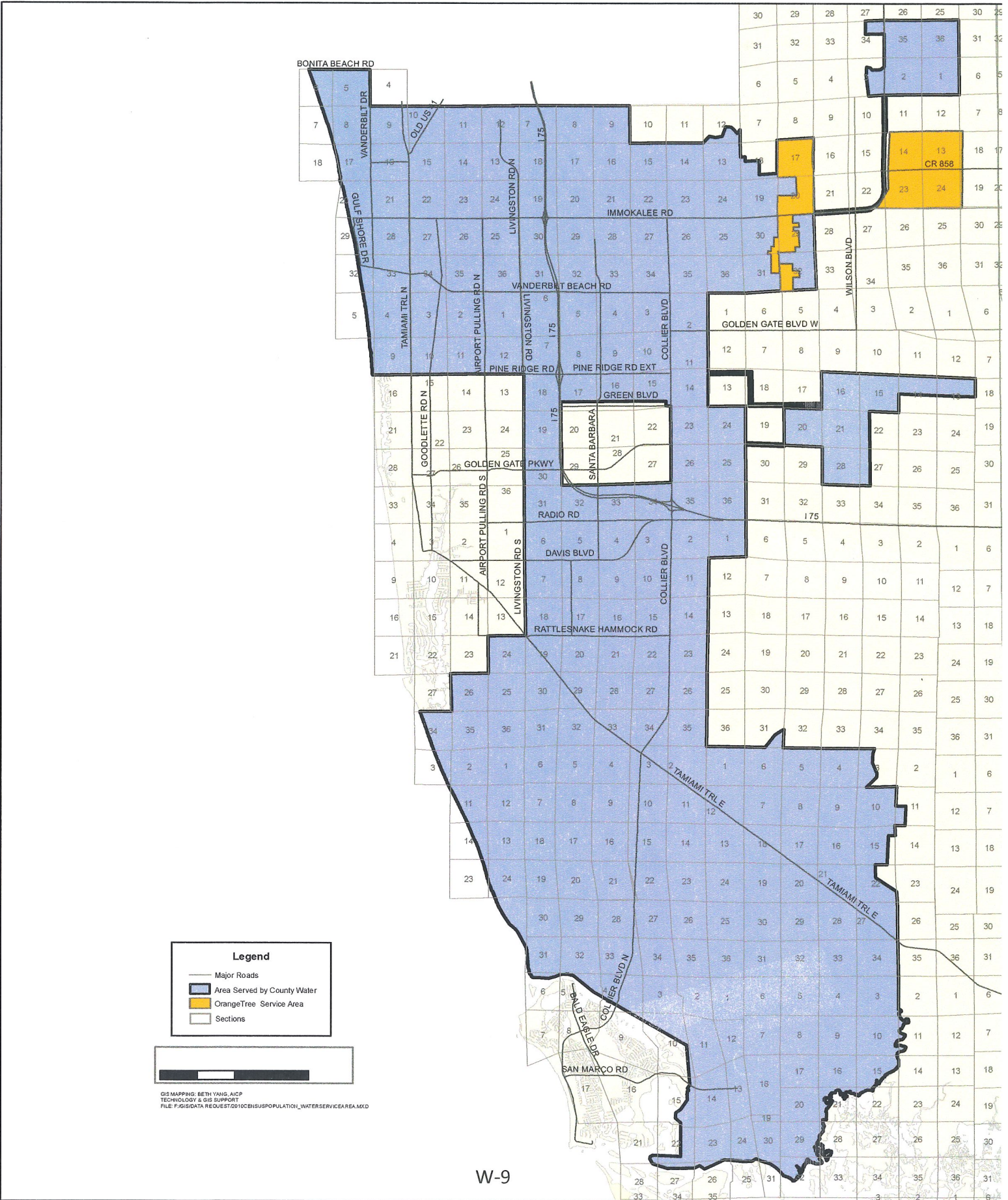
New Plant Constructed Capacity Schedule:

The following changes were made from the 2010 AUIR to match the June 29, 2011 Comprehensive Planning Section's populations and resulting system demands:

- A. NERWTP: Moved 7.5 MGD plant in FY 2027 to FY 2024 and increased capacity to 10.0 MGD.
- B. Orange Tree Utilities: Collier County Water-Sewer District's assumption of operation and maintenance of Orange Tree Utilities requires a one year notice and will now be in 2013 at the earliest subject to the Board of County Commissioners of Collier County approval as ex-officio the Governing Board of the Water-Sewer District. The Water Treatment Plant is now planned to be decommissioned as the NERWTP comes online in 2024.

Existing and Future Water Service Areas

2011 Water AIUR



Schedule of Capital Improvement

“Exhibit A & Exhibit H”

EXHIBIT "A"
COLLIER COUNTY SCHEDULE OF CAPITAL IMPROVEMENTS
FISCAL YEARS 2012-2016

POTABLE WATER SYSTEM PROJECTS			\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT
CIE #	PROJECT	CONSTRUCTION SCHEDULE NOTES	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTAL
	Debt Service		\$10,800,601	\$10,273,564	\$10,273,071	\$10,267,922	\$8,832,420	\$50,447,578
	Expansion Related Projects - Other		\$87,500	\$102,500	\$202,500	\$102,500	\$2,602,500	\$3,097,500
	Replacement & Rehabilitation Projects - Other		\$27,998,200	\$7,692,500	\$12,867,500	\$10,242,500	\$11,542,500	\$70,343,200
	Departmental Capital		\$284,350	\$294,302	\$304,603	\$315,264	\$326,298	\$1,524,817
	POTABLE WATER SYSTEM PROJECT TOTALS		\$39,170,651	\$18,362,866	\$23,647,674	\$20,928,186	\$23,303,718	\$125,413,095

REVENUE KEY - REVENUE SOURCE	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTAL
WIF - Water System Development Fees / Impact Fees	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
RR - Operating Reserve Revenues	\$7,696,351	\$7,177,602	\$7,270,164	\$7,157,825	\$8,261,217	\$37,563,159
B - Bonds	\$0	\$0	\$0	\$0	\$0	\$0
LOC - Commercial Paper	\$0	\$0	\$0	\$0	\$0	\$0
SRF - State Revolving Fund Loans	\$0	\$0	\$0	\$0	\$0	\$0
WCA - Water Capital Account	\$476,100	\$492,764	\$510,010	\$527,861	\$500,001	\$2,506,736
REV - Rate Revenue	\$27,998,200	\$7,692,500	\$12,867,500	\$10,242,500	\$11,542,500	\$70,343,200
REVENUE TOTAL	\$39,170,651	\$18,362,866	\$23,647,674	\$20,928,186	\$23,303,718	\$125,413,095

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. Figures provided for years six through ten of the Schedule of Capital Improvements 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. No new revenue bonds or State Revolving Loans are contemplated at this time. The Collier County Public Utilities Division is maintaining a pay as you go posture. To the extent that the user rates and impact fees are not adequate to cover the project costs and debt service, any shortfall will be funded by the reserves.

DATA SOURCES:
 - Expansion Related and Replacement & Rehabilitation Projects:
 FY 2012 is obtained from the 2012 Proposed Budget.
 FY 2013 to FY 2021 are obtained from an internal master plan review.
 - Department Capital:
 FY 2012 is obtained from the 2012 Proposed Budget, split 50/50 between Water and Wastewater.
 - Debt Service:
 FY 2013 to FY 2016 are obtained from the 2010 Comprehensive Annual Financial Report, Summary of Debt Service requirements to maturity. Total Debt Service amount is split 50/50 between Water and Wastewater.

POTABLE WATER PROJECTS		CONSTRUCTION	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT
CIE #	PROJECT	SCHEDULE NOTES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL
	Expansion Related Projects - Generally		\$2,702,500	\$132,500	\$102,500	\$202,500	\$102,500	\$3,242,500
	Replacement & Rehabilitation Projects - Generally		\$10,517,500	\$9,842,500	\$6,842,500	\$5,942,500	\$5,842,500	\$38,987,500
	Debt Service		\$8,832,420	\$8,832,420	\$8,832,420	\$8,832,420	\$7,862,992	\$43,192,672
	Departmental Capital		\$337,718	\$337,718	\$337,718	\$337,718	\$337,718	\$1,688,590
	POTABLE WATER PROJECT TOTALS		\$22,390,138	\$19,145,138	\$16,115,138	\$15,315,138	\$14,145,710	\$87,111,262

REVENUE KEY - REVENUE SOURCE		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL
WIF - Water System Development Fees		\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
RR - Operating Reserve Revenues		\$8,534,920	\$5,964,920	\$5,934,920	\$6,034,920	\$4,965,492	\$31,435,172
WCA - Water Capital Account		\$337,718	\$337,718	\$337,718	\$337,718	\$337,718	\$1,688,590
REV - Rate Revenue		\$10,517,500	\$9,842,500	\$6,842,500	\$5,942,500	\$5,842,500	\$38,987,500
REVENUE TOTAL		\$22,390,138	\$19,145,138	\$16,115,138	\$15,315,138	\$14,145,710	\$87,111,262

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. Figures provided for years six through ten of the Schedule of Capital Improvements 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. No new revenue bonds or State Revolving Loans are contemplated at this time. The Collier County Public Utilities Division is maintaining a pay as you go posture. To the extent that the user rates and impact fees are not adequate to cover the project costs and debt service, any shortfall will be funded by the reserves.