

Charlotte County Utilities Wastewater and Water Status

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Board of County Commissioners Meeting

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Charlotte
County
Utilities

Agenda

- Overview of Wastewater Status and Projects
 - Current status of wastewater treatment facilities
 - Regulatory requirements for plant expansion
 - Projected wastewater generation rates
 - Proposed expansion schedules
 - CIP Projects
- Overview of Water Status and Projects
 - Current status of water demands and projected water demands
 - CIP Projects and Status
 - Peace River/Manasota Regional Water Supply Authority

Current Status of Wastewater Treatment Capacities

Wastewater Treatment Facility	Permitted Capacity (MGD)	2005 Annual Average Influent (MGD)
East County	6.0	4.43
West County*	2.225	1.38
South County	0.5	0.25

* Includes West Port (1.2 MGD), Rotonda (0.625 MGD), and flow diversion to Englewood Water District (0.4 MGD)

Regulatory Requirements for Plant Expansion

- Capacity Analysis Report (CAR) must be submitted when 3-month average daily flow exceeds 50% of permitted capacity
- Documentation of planning, design and construction of needed facility expansions must be submitted in accordance with the following schedule:

If permitted capacity will be equaled/exceeded in:	Required Action for Expansion
5 years	Planning/preliminary design initiated
4 years	Plans and specifications being prepared
3 years	Construction permit application to be submitted within 30 days
6 months	Application for operation permit for expanded facility must be submitted

Wastewater Treatment Facility Compliance with Regulatory Requirements

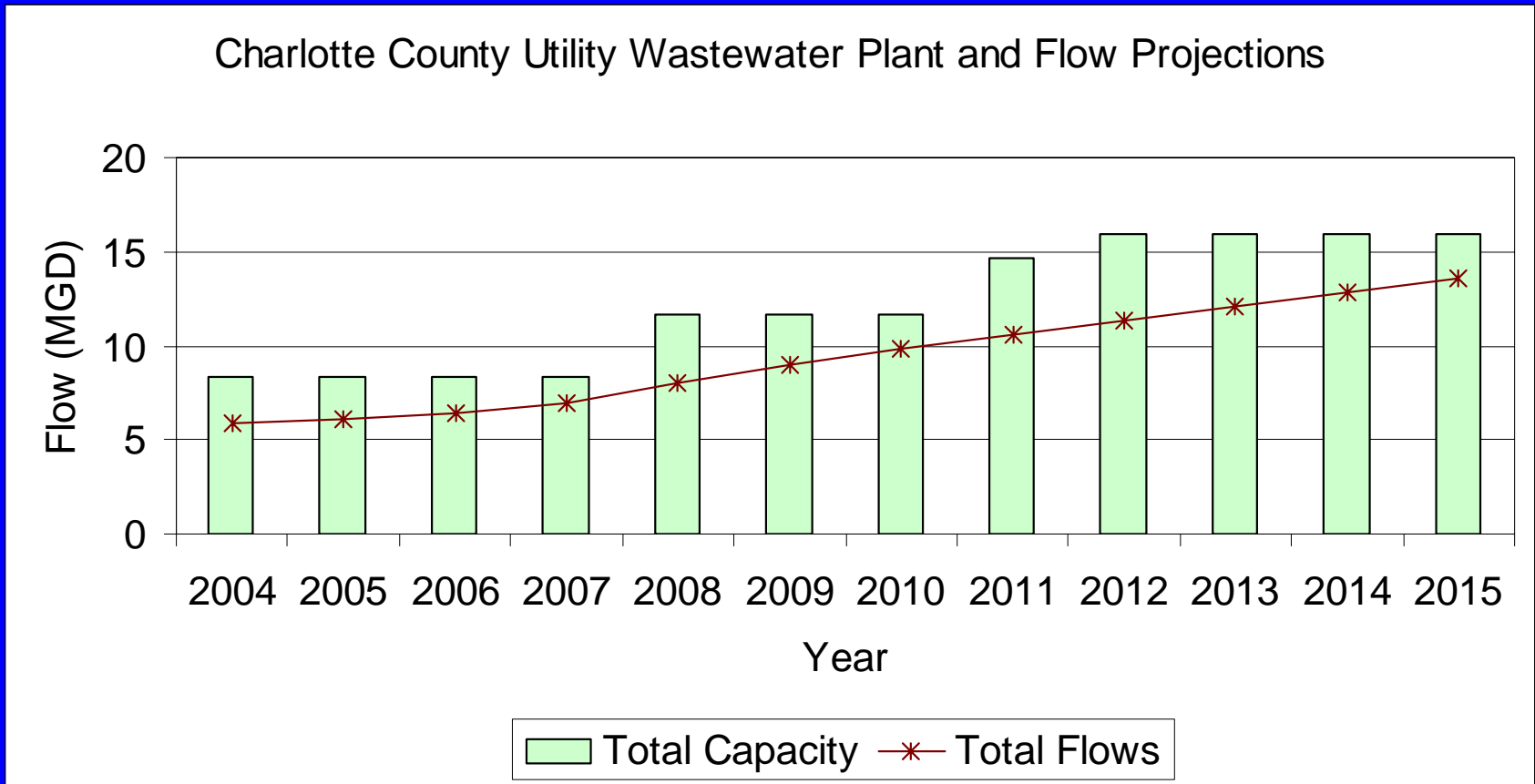
Facility	CAR Submitted?	Prelim. Design Initiated	Plans/Specs in Prep.?	FDEP Permit App. Filed?
East Port	Yes	Yes	Not required	Not required
West Port	Yes	Not required	Not required	Not required
Rotonda	Yes	Yes	Pending	Yes
Burnt Store	Yes	Yes	No	No

Projected Wastewater Generation Rates

	CENTRAL COUNTY		WEST COUNTY					SOUTH COUNTY		CCU Total Flows		
	EAST PORT		WEST PORT		ROTONDA		COMBINED		BURNT STORE (4)			
Year	Annual Average Influent (MGD)	Projected Plant Capacity (MGD)	Annual Average Influent (MGD)	Projected Plant Capacity (MGD)	Annual Average Influent (MGD)	Projected Plant Capacity (MGD)	Annual Average Influent (MGD)	Projected Plant Capacity (MGD)	Annual Average Influent (MGD)	Projected Plant Capacity (MGD)	Total Annual Average Influent (MGD)	Total Projected Plant Capacity (MGD)
2004	4.22	6.00	0.39	1.20	0.80	0.625	1.19	1.825	0.20	0.50	5.91	8.33
2005	4.43	6.00	0.45	1.20	0.93	0.625	1.38	1.825	0.248	0.50	6.06	8.33
2006	4.65	6.00	0.49	1.20	1.00	0.625	1.49	1.825	0.33	0.50	6.47	8.33
2007	4.89	6.00	0.53	1.20	1.07	0.625	1.60	1.825	0.49	0.50	6.98	8.33
2008	5.13	6.00	0.57	1.20	1.36	2.00	1.93	3.20	0.93	2.50	7.99	11.70
2009	5.39	6.00	0.62	1.20	1.49	2.00	2.12	3.20	1.44	2.50	8.94	11.70
2010	5.66	6.00	0.68	1.20	1.65	2.00	2.33	3.20	1.81	2.50	9.80	11.70
2011	5.94	9.00	0.73	1.20	1.84	2.00	2.57	3.20	2.03	2.50	10.54	14.70
2012	6.23	9.00	0.80	2.40	2.05	2.00	2.85	4.40	2.22	2.50	11.31	15.90
2013	6.55	9.00	0.86	2.40	2.30	2.00	3.17	4.40	2.34	2.50	12.06	15.90
2014	6.87	9.00	0.94	2.40	2.60	2.00	3.54	4.40	2.38	2.50	12.79	15.90
2015	7.22	9.00	1.02	2.40	2.94	2.00	3.96	4.40	2.41	2.50	13.59	15.90

- Notes:
- East Port Flows based on 5% growth rate
 - West Port flows based on 8.5% and is interconnected to Rotonda
 - Rotonda flows based on 10% and includes flows currently being diverted to EWD
 - Burnt Store flows derived from build-out schedules provided by developers and Burnt Store Area Plan

Projected Wastewater Generation Rates



Projected Wastewater Generation Rates – East Port

- Current permitted capacity projected to be equaled/exceeded in 2012
- Planning and preliminary design of expansion underway
- Capacity Analysis Report recommends expansion to 9 MGD, to be operational in 2010

Projected Wastewater Generation Rates – West Port

- Current permitted capacity projected to be equaled/exceeded after 2015
- West Port is interconnected with Rotonda
- Expansion of West Port will be driven by the overall projected wastewater generation in West County (Rotonda + West Port)
- Currently anticipate an expansion to 2.4 MGD to be operational in 2012

Projected Wastewater Generation Rates – Rotonda

- Current permitted capacity exceeded as of 2004
- Excess flows being conveyed through interconnects to West Port and Englewood Water District for treatment and disposal
- Rotonda under Consent Order from FDEP, which governs expansion schedule
- Construction permit application submitted on January 31, 2006
- Currently anticipate an expansion to 2 MGD to be operational in 2008

Projected Wastewater Generation Rates – Burnt Store

- Current permitted capacity projected to be equaled/exceeded as of 2008
- Expansion of Burnt Store WWTP from 0.25 MGD to 0.5 MGD completed in 2005 pursuant to Consent Order from FDEP
- Disposal capacity was limited to 0.25 MGD; we have achieved temporary enhancement of disposal capacity to 0.44 MGD; new pumps will allow use of the full, 0.5 MGD permitted disposal capacity in August 2006
- Currently anticipate an expansion to 2.5 MGD to be operational in 2008

CIP Projects – Wastewater

Facility	CIP Nos.	Funding Years
East Port WRF	350302	FY07-FY08
	350101	FY06-FY11
West Port WRF	359502	FY06-FY10
Rotonda WRF	350102	FY06-FY08
Burnt Store WWTP	350406	FY06-FY09

Current Status of Water Capacities

Water Treatment Facility	Permitted/ Allocated Capacity (MGD)	2005 Annual Average Demand (MGD)
PR/MRWSA	12.758*	9.812
Burnt Store WTP	1.127	0.403

* 2 MGD currently being sent to Sarasota County

Projected Water Demands (As of 4/25/06)

Year	PR/MRWSA		Burnt Store WTP		CCU Total Flows	
	Annual Average Demand (MGD)	CCU Allocated Capacity (MGD)	Annual Average Demand (MGD)	Projected Plant Capacity (MGD)	Annual Average Demand (MGD)	Projected Capacity (MGD)
2005	9.81	10.758	0.4	1.127	10.22	11.885
2006	10.24	12.758*	0.59	1.127	10.83	13.885
2007	11.07	12.758	0.81	1.127	11.87	13.885
2008	12.04	12.758	1.19	3.6	13.23	16.358
2009	13.16	13.895	1.68	3.6	14.84	17.495
2010	14.33	15.031	2.05	3.6	16.38	18.631
2011	15.57	16.102	2.27	3.6	17.85	19.702
2012	16.88	16.102	2.47	3.6	19.35	19.702
2013	18.24	16.102	2.61	3.6	20.85	19.702
2014	19.68	16.102	2.67	3.6	22.34	19.702
2015	21.20	16.102	2.72	3.6	23.92	19.702

* As of October 1, 2006

CIP Projects – Water

Project	CIP Nos.	Funding Years
Burnt Store WTP Expansion	330404	FY06-FY08
Regional Interconnects	330601	FY06-future
	330304	FY06-FY08
Countywide RO	330601	FY06-FY10
PR/MRWSA Expansion	Debt Service	FY09-FY35

Burnt Store WTP Expansion: Where We Stand

- Currently in the design stage. Malcolm Pirnie will submit the Preliminary Engineering Report by the end of May.
- Associated Water Use Permit application has been submitted to SWFWMD and two responses to Requests for Additional Information have been submitted.
- Pilot testing will begin in June and is expected to be completed within three months.
- Plant expansion is expected to be completed and online around April 2008.

Regional Interconnects

CCU has three emergency interconnects with the City of North Port.

CCU is working to establish regional interconnects with:

- City of Punta Gorda
- Englewood Water District
- City of Cape Coral
- Lee County

The interconnects currently under investigation would serve to further expand the cooperative regional system.

Punta Gorda Interconnect: Where We Stand

The feasibility study phase with DMK Associates is being completed, including:

- Completed modeling of the flows on both sides of the Peace River to adequately size the pipes.
- Identified primary and alternate routes.
- Completed blending analysis for water from the various utilities to address potentially troubling combinations.
- The preliminary engineering report is expected by June.

Cape Coral Interconnect: Where We Stand

- Currently in the feasibility study phase. DMK will complete the corridor analysis and survey, design the interconnect and provide bidding assistance.
- Preliminary meetings with Cape Coral staff have been positive. A new water plant is scheduled for completion in 2008 and the City has indicated it would consider selling water to Charlotte County at that time on an emergency or temporary basis. If approved by the County, an interconnect could be constructed in this timeframe.
- SFWMD has indicated that approval is possible for this sort of documented, temporary transfer of water, even if it is for several years.

Lee County Interconnect: Where We Stand

- The feasibility study, including a blending analysis and alternatives identification/evaluation, was completed and submitted in April by Jones Edmunds.
- Jones Edmunds is proceeding with the conceptual design and permitting pre-application investigations.
- A presentation will be made to the BCC upon completion of the ongoing tasks.
- Meetings have been scheduled with Lee County staff to discuss the proposed interconnect. Lee County staff will meet with their BCC upon completion of the Jones Edmunds investigations.

Countywide RO: Where We Stand

- Currently in the feasibility study phase, which will address permitting, costs and integration with CCU's existing distribution system. Conceptual design is scheduled for completion by December 2006.
- Malcolm Pirnie has produced preliminary hydrogeologic and water quality maps and completed the draft site selection memo.
- Based upon the demands in South County, it is expected that test wells will be installed in this area first. Final feasibility reports on each site, including test well data for each region, are due by the end of 2007.
- If approved, detailed design is tentatively scheduled for 2008, construction in 2009 and startup by mid-2010.

Peace River/Manasota Regional Water Supply Authority

