

**ANNUAL UPDATE &  
INVENTORY REPORT ON  
PUBLIC FACILITIES  
2008 AUIR  
CCPC/PC SPECIAL MEETING  
OCTOBER 22, 23, 24, 2008**



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## Staff Report

**Presentation to the Collier County Planning Commission (CCPC) and the Productivity Committee (PC) of the 2008 Annual Update and Inventory Report (AUIR) on Public Facilities as provided for in Chapter 6.02.02 of the Collier County Land Development Code.**

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**OBJECTIVE:** Request that the CCPC and PC review the 2008 Annual Update and Inventory Report (AUIR) on public facilities and provide recommendations to the Collier County Board of County Commissioners (BCC) on specific projects and associated funding sources for inclusion in the Schedule of Capital Improvements of the Capital Improvement Element during the FY09 annual update and amendment (only Category "A" Public Facilities are included in the CIE), and the formation of the FY10 proposed Annual Budget. This AUIR, like last year's AUIR project, identifies capital needs for both new facilities to serve projected population growth, as well as for replacements of public facilities that will no longer be adequate in the 5-year AUIR time period as the useful life of those public facilities will be exceeded. Also like last year's AUIR, this year's AUIR presents additional information related to individual division/department operational data. This additional data set is being provided to evaluate the year to year change in demand experienced by each AUIR component and to assist the advisory boards in making recommendations upon the appropriateness of the County's current Level of Service Standards (LOSS) and timing/necessity of proposed projects. Furthermore, like last year's AUIR, the County has been mandated to operate with budgetary constraints. Based upon the January 29, 2008 election, the County is required to double the exemption for homesteaded property. This fact, in light of last year's tax rollback and the decrease in permits issued for new units over the past year, has compromised the County's ability to fully fund all components of the AUIR at the currently adopted level of service standards. Due to this recognition of limited funds, the AUIR constitutes the process of evaluating budgetary priorities as well as determining appropriateness of the County's currently adopted LOSS.

It should be noted that the County is required to provide documented revenue sources to satisfy expenses associated with achieving the level of service standards expressed within Category "A" facilities. Under no circumstances can a project be removed from the 5-year CIE where the reason is lack or decrease in revenue. Therefore, the general assumption in this AUIR is that Division Administrators and Department Directors have specifically validated and signed off on the financial feasibility of their respective Category "A" facilities. While, Category "B" facilities are non-regulatory and shortfalls associated with achieving their expressed LOSS are strictly a local decision. However, within each of the Category "B" facilities, a level of service standard has been identified by the respective Impact Fee Study and the AUIR ensures that these LOSS are maintained without any adverse impacts to the rational nexus used to establish the respective impact fees.

The population projections provided by the Bureau of Economic and Business Research (BEBR) per Florida Statutes to the County depict an approximate eight percent reduction from the numbers provided to the County for last year's AUIR. Please note there was a reduction in



population projections from the 2006 AUIR, set forth in the 2007 AUIR due to a change from BEBR high population projection to a medium population projection. The two years of reductions in population projections stands as a stark contrast to the high growth environment projected for the County only three years ago. From the years 2000 to 2006, due to astronomical growth, each of the components of the AUIR was asked to bring on improvements as quickly as possible in an attempt to satisfy the requirements of the adopted level of service standards. From this period of rapid population and infrastructure growth, the last two fiscal years have provided a new reality of growth for the County. Over the past two year's, with the reductions in population projections and corresponding decline in building permits issued, each of the AUIR components now reflect that the capital improvements and infrastructure that looked so needed while in the prior year planning stages, are no longer necessary within the time frame originally projected. With this recognition, as well as the recognition of the fiscal constraints facing the County, each AUIR component reassesses the timing of all new improvements, as well as the best approach to asset management given the budgetary constraints.

**BACKGROUND:** Chapter 163, Part II, Florida Statutes requires the County to adopt certain Land Development Regulations (LDR's) to implement its Growth Management Plan adopted on January 10, 1989. Section 6.02.00 of the LDC requires the County to, "Provide that public facilities and services meet or exceed the standards established in the CIE required by Section 163.3177 and are available when needed for the development..." This Section of Chapter 163, Part II, Florida Statutes is commonly known as the concurrency requirement. Accordingly, on March 21, 1990, the Board adopted the Collier County Adequate Public Facilities Ordinance No. 90-24. This Ordinance was subsequently codified in Chapter 6.02.02 of the Land Development Code (LDC).

Chapter 6.02.02 of the LDC established a management and monitoring program for public facilities, which provides for an annual determination of Level of Service Standard (LOSS) concurrency for Category "A" facilities and identification of additional facilities needs. Category "A" facilities are roads, solid waste, drainage canals and structures, parks and recreation, potable water, and sewer collection and treatment. The AUIR also provides analysis and recommendations on Category "B" facilities for which the County has adopted LOSS and collects impact fees. The Category "B" facilities are Jails, Law Enforcement, Libraries, Emergency Medical Services, Government Buildings and the two dependent fire districts, Ochopee and Isle of Capri. Adoption of Category "B" facilities LOSS are necessary in order to legally validate impact fees for these facilities. The adoption of category "B" items in the AUIR became necessary when the Category "B" facilities were removed from the CIE and state regulatory oversight as a part of the recent EAR-Based GMP amendments. Chapter 6.02.02 of the Land Development Code requires the preparation of an AUIR on Public Facilities for presentation to the Board of County Commissioners.

The findings of the AUIR related to Category "A" public facilities form the basis for the preparation of the Annual Update and Amendment to the Capital Improvement Element and Schedule of Capital Improvements. The AUIR establishes: all Category "A" and Category "B" proposed projects to be included in the next annual budget, the determination of any Area of Significant Influence (ASI), the review of the issuance of development orders (excluding roads)

during the next year. The AUIR also provides an update to the ledger baseline for the real-time Transportation Concurrency Management System database.

Under the provisions of Chapter 6.02.02 of the LDC, the BCC's options in response to the needs identified in the AUIR include, but are not limited to, the following:

1. Establishment of Areas of Significant Influence (ASI) surrounding deficient road segments which are not in a Traffic Congestion Management Area (TCMA) or Traffic Congestion Exception Area (TCEA).
2. In response to the needs identified in the AUIR, Public Facility projects can be added to the financially feasible Schedule of Capital Improvements in the Capital Improvements Element. Road projects must be in the first or second year of the next adopted Schedule of Capital Improvements in order to be factored as available capacity in the real-time Transportation Concurrency Management System database.
3. Deferral of development order issuance will occur for development not vested by statute in areas affected by deficient Category "A" public facilities. This applies to projects both pending and not financially feasible, or not in the 5-year CIE. Both circumstances could result in the following remedial action:
  - a. Modification of Level of Service Standards (LOSS) via Growth Management Plan Amendments.
  - b. Subsequent direction to Staff to include the necessary Category "A" Public Facility projects in a future Annual CIE Update and Amendment to be adopted by the Board.
  - c. Future approval of new or increased revenue sources for needed Public Facility projects, by the Board of County Commissioners, the State Legislature or the County voters.
  - d. Developer constructed improvements guaranteed by an enforceable development agreement.

It should be noted that the options identified above are crafted under the design of attaining a fiscally feasible CIE based on a 5-year concurrency management system. The Florida legislature and subsequently the DCA, is pushing the concept of long term financial feasibility. A system which allows for deficits in infrastructure or infrastructure funding within the early years of a 5, 10 or 15 year program, as long as a jurisdiction can show financial closure at the end of that specified period. The BCC has provided past policy direction to maintain an annual financially feasible CIE. The 2007 legislative tax reform measure and January 29, 2008 voter approved exemption increase has challenged the BCC's long term positioning for financial feasibility on an annual basis.

**GROWTH MANAGEMENT IMPACT:** The preparation and presentation of the AUIR to the BCC, CCPC and PC meets the requirements of Chapter 6.02.02 of the Land Development Code for an annual determination of the status of public facilities. Board direction to include the projects identified in the AUIR in a financially feasible FY09 Annual CIE Update and Amendment will establish and maintain concurrency for Category "A" public facilities, except roads, for the next twelve (12) months. Road projects needed to remedy LOS deficiencies must be in the first or second year of the Schedule of Capital Improvements.

#### CIE/Financial Feasibility

- CIE amendments adopted after July 1, 2005, must demonstrate financial feasibility, which means committed revenues (ad valorem taxes, bonds, state and federal funds, tax revenues, impact fees, and developer contributions) for the years 1-3 of the CIE and planned revenues (future grants, planned new sources of revenues such as taxes approved through referendum) for years 4 and beyond. The Department of Community Affairs (DCA) has indicated that projects slated for years 4 and 5 **should not** be included unless the identified funding source will exist with absolute certainty or if there is a back-up funding solution. **Based upon the County's experience with DCA throughout the EAR-based amendment process, extreme caution should be exercised in years 4 and 5 if absolute funding certainty does not exist as this could affect the role rate of Ad Valorem taxes or the distribution of projected Ad Valorem tax revenue based on the existing mileage rate.** Any subsequent changes to the CIE each following year will have to be justified with a substantive rationale. **Thus, the AUIR has to be a financially feasible document as well.**
- CIE amendments which delay a scheduled project beyond years 1-3 can only be done after a public hearing is held. An ordinance to accomplish this without a public hearing is not permitted.

The state statutes require the adoption of a financially feasible CIE prior to December 1<sup>st</sup> of each calendar year. This mandate is impossible to meet due to the following: local governments not adopting budgets until late September; the CIE requiring multiple hearings with adequate notice for CCPC and BCC meetings, the inclusion of school concurrency, and the amount of time necessary to draft a financially feasible CIE. The DCA recognizes this legislative quagmire and staff will diligently work to get this County's financially feasible CIE transmitted to DCA as soon as possible. Comprehensive Planning staff will be preparing CIE changes in conjunction with the AUIR process and will move forward with the CIE immediately after BCC adoption of the AUIR.

It should be noted that with the recent property tax reform measure, the voter approved "super homestead" referendum and the housing market slowdown has reduced the funding available to the BCC. This fact is set against the emerging recognition that the direction the State adopted with Senate Bill 360 in 2005, of requiring local units of government to be financially feasible within the 5-years Capital Improvement Program window, has been shifting to promoting, if not mandating, long term concurrency. As noted, the combination of the above mentioned initiatives have seriously challenged the County's ability to have adequate funding in the 5-year CIE window to pay for the full cost of capital infrastructure. Specifically, the combination of the County's state mandated restrictions upon taxing levels and the cost associated with the capital



improvements needed to satisfy the County's existing level of service standards could potentially force the County into a system of long term financial feasibility and eviscerate the 2-year concurrency management system. Moreover, if the State Legislature revisits the "trip mobility fee" proposed in last year's growth management bill and adopts this change, Collier County will have to modify its approach to development approval, concurrence management and developer contribution agreements. Otherwise, the "trip mobility fee" will result in traffic congestion, if not gridlock.

### **LOSS appropriateness**

As indicated within the objective portion of this staff report, the AUIR provides the platform for the Planning Commission and the Productivity Committee to make evaluations and recommendations regarding the appropriateness of the County's current LOSS. The process of capital improvement programming for the County is a linear equation for most components of the AUIR, (New Population x Level of Service Standard = Capital Improvement). It should be noted that Public Utilities and Transportation have developed a more complex formula and system for maintaining LOSS which dictates capital expansion, but the basic premise of additional demand requiring new improvements is the underlying fundamentals of the equation. The 2007 AUIR Libraries component provides an example. Between 2007 and 2008, the County per BEBR estimates and projections, has added 7,939 people. The BCC adopted LOSS for Libraries is .33 square feet per capita. To determine the capital improvement, the equation is expressed as  $7,939 \times .33 \text{ sq.ft.} = 2,620$  square feet of capital improvements required. **This equation is the only justification required of the proposed capital improvement.**

The role of the AUIR is to provide an opportunity on an annual basis for the two advisory boards to evaluate and provide recommendations on the appropriateness of the LOSS currently adopted by within the AUIR. For example, the question applied to Jails is, "Based upon the bench marks provided and the currently month demand upon the Jails system, is 3.2 beds per 1,000 and appropriate standard?" It should be noted that within the appendix section of the AUIR workbook the "Demand verses Standards" spreadsheet introduced at the 7-17-08 CCPC review of the AUIR Population Study has been included for discussion purposes in conjunction with the staff generated analysis, which has also been included.

### **LOSS and Impact Fees**

It should be noted that impact fee studies and methodologies do not establish levels of service, at a minimum they set a base line where levels of service can not fall below without invalidating the impact fee. A level of service standard that is established by an impact fee study represents the standard that has been achieved for a particular facility, but does not dictate that a local government can not adopt a level of service that is higher than the achieved level of service. However, the difference between the achieved level of service and the adopted level of service will require supplemental funding from a source other than impact fees. Government Buildings and EMS are two AUIR components in which the Impact Fee LOSS is below the AUIR adopted LOSS. As indicated, this discrepancy is resulting is a higher level of necessary general revenue supplemental funding. The adopted level of service may never be lower than the achieved level

of service (used for the impact fee) because growth would then be required to contribute toward the improvement of public facilities beyond its fair share.

## Population

The population projections utilized with the 2008 AUIR, following the precedent set in the 2007 AUIR, have been changed based upon BCC policy direction and acceptance from the Department of Community Affairs (DCA). The revised population method utilizes BEBR Medium Range projections for the entire projection period with a 20 percent seasonal adjustment factor. The below chart is a comparison of the 2008 versus the 2007 population numbers.

<b>2008 BEBR POPULATION</b>	<b>2007</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
PERMANENT	333,858	353,900	406,300	455,300	503,300	548,900	591,200
SEASONAL	400,630	424,680	487,560	546,360	603,960	658,680	709,440
<b>2007 AUIR NUMBERS</b>							
PERMANENT	339,068	379,200	440,100	497,500	549,200	598,500	
SEASONAL	406,882	455,040	528,120	597,000	659,040	718,200	
<b>Reduction from 2007 (Permanent)</b>	1.54%	6.67%	7.68%	8.48%	8.36%	8.29%	

The reduction in population projections from BEBR from 2007 to 2008 is approximately an eight percent reduction. This downward adjustment to the county's population projections is a reflection of the macro and micro economic factors which are afflicting the housing market, locally, but also nationally. As discussed within the first page of this staff report, the capital improvements identified within the 2008 AUIR is a reflection of a new emerging reality for the County in relation to growth. No one within the AUIR planning team expects that growth will no longer come to the County. The question is when growth will restart and at what annual rate. The answer to that question requires time, as it involves issues related to the County, issues related to the State of Florida, issues related to the national economy and finally issues related to the global economy. All of which can not be fully provided for at this time. One fact that is being provided for by this year's AUIR is that currently within most AUIR components, the adopted level of service standards are being met, not only today, but for the next five year planning period, with a vast majority of the proposed AUIR projects already under construction or pushed out into the second 5 year window.

The dynamics of the demographic changes will not be entirely known until the housing market returns to some semblance of stability. Hopefully, the 2010 Census will capture the true essence of the change in demographic related to permanent population and vacancy rates.

**FISCAL IMPACT:** Revenues are required to fund the CIE projects proposed in the 2008 AUIR for the FY08-09 thru FY12-13 planning period to maintain statutorily mandated financial feasibility of the CIE for category "A" facilities and must be made available by the Board of County Commissioners or fall within the Board's statutory General Fund taxing authority. Current and Proposed revenues needed to fund public facility construction/expansion for the FY08-09 thru FY12-13 CIE planning period are set forth in each respective capital facilities section of the 2008 AUIR with funding availability validated by the respective County Division responsible for capital facilities and infrastructure. Project expenditures in excess of estimated impact fee, gas tax, and user fee revenues receipts and funded bonds, are reflected as being augmented by General Fund Revenues in the body of this document or with no identified source of revenue. "General Fund Revenues" are defined as existing sales tax revenues and other state shared revenues, or ad valorem allocations at the discretion of the BCC. **Where funding sources are not identified, the BCC will make a policy decision to either dedicate a funding source or in the alternative reduce the existing level of service.** Either alternative will result in a financially feasible AUIR and CIE.

It should be pointed out, that all of the Category "B" facilities, with the exception of the dependent fire districts, required loans from the general fund to meet the necessary revenue.

### **Funding for new growth**

Throughout the previous years AUIR, the direction from the BCC has been to have new population in Collier County pay for system expansion. Acting upon that policy directive, Collier County has adopted impact fees for all appropriate capital facilities and services with annual indexing prior to updates of impact fee studies. With that fact, currently revenue from impact fees is not sufficient to satisfy the total cost of capital expansion. Examination of the components of the AUIR provides instances where capital improvements are provided for by internal County loans. Ideally, these debt obligations will be satisfied utilizing future impact fees. Based upon the cost of improvements and the schedule of impact fee revenue identified within the 2008 AUIR, general revenue in the form of a loan to impact fees will have to bridge the gap in funding. It should be noted that any delays in annual indexing or adoption of new fees based upon requisite studies will result in a higher reliance on ad valorem taxes with existing property owners bearing an increased amount of financial responsibility for new growth.

The recognition that impact fees can not cover the full cost of future improvements and the ramifications that fact has upon general revenue funds must be acknowledged. Additionally, the practice of securing commercial loans or bonds to finance improvements is called into




question as the County approaches the ceiling of its debt ratio. Moreover, the interest rates on commercial paper have increased from the 5 percent range to the 11-12 percent range during this time of national financial uncertainty. Furthermore, on January 29<sup>th</sup>, 2008, the voters of the state decided for a “super” homestead exemption, which has further reduce the County’s ability to fund government at its current level. All of these factors, coupled with a state legislature which publicly promotes the sentiment that local government has not be conservative stewards of public funds, questions severely the County ability to maintain the currently adopted LOS and still maintain fiscal integrity.

**RECOMMENDATION:** That the Collier County Planning Commission and Productivity Committee take action in the form of recommendations to the Board of County Commissioners:

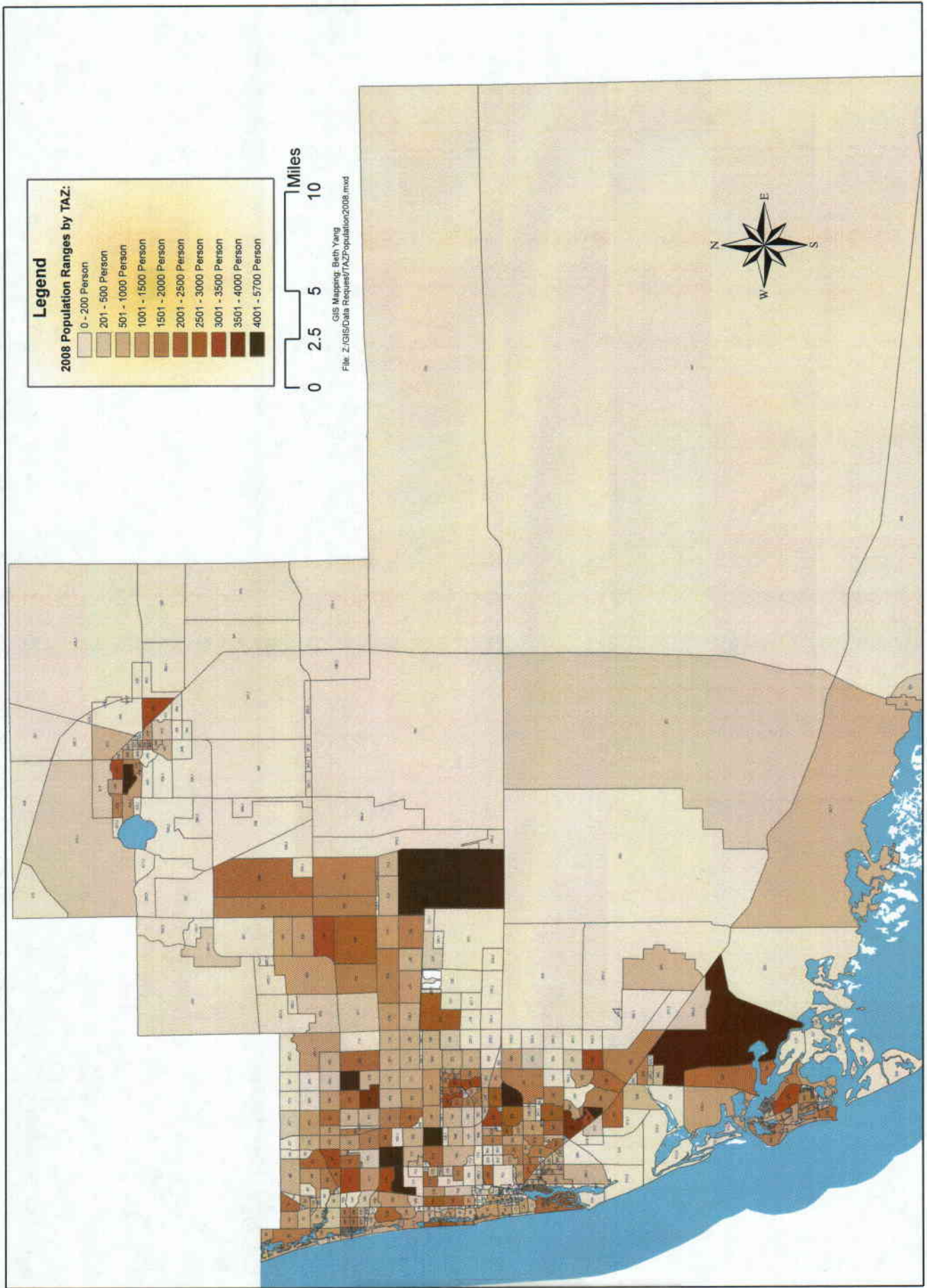
1. Find upon analysis, review, actions taken and directions given, based on the 2008 AUIR that adequate Drainage Canals and Structures, Potable Water, Sewer Treatment and Collection, Solid Waste, and Parks and Recreation facilities will be available, as defined by the Collier County Concurrency Management System, as implemented by Chapter 6.02.02 of the LDC, to support development order issuance until presentation of the 2008 AUIR.
2. Find that there is sufficient road network capacity in the Transportation Concurrency Management Database for continued operation of the real-time declining balance ledger to support development order issuance until the FY08-09 end of third quarter Status Report.
3. Accept and approve the attached document as the 2008 Annual Update and Inventory Report on Public Facilities;
4. Give the BCC direction by separate motion and vote on Category “A” and “B” facilities relative to staff recommendations for projects and revenue sources with Category “A” facilities set forth for inclusion in the FY08-09 Schedule of Capital Improvements of the Annual CIE Update and Amendment;
5. Provide the BCC with a recommendation upon the appropriateness of the existing levels of service standards associated with the individual components of the AUIR and provide alternative LOSS where deemed appropriate

PREPARED BY:  Date: 9-24-08  
MIKE BOSI, AICP, COMMUNITY PLANNING MANAGER  
COMPREHENSIVE PLANNING DEPARTMENT

APPROVED BY:  Date: 9-24-08  
RANDALL COHEN, AICP, DIRECTOR  
COMPREHENSIVE PLANNING DEPARTMENT

APPROVED BY:  Date: 9/24/08  
JOSEPH K. SCHMITT, ADMINISTRATOR  
COMMUNITY DEVELOPMENT & ENVIRONMENTAL  
SERVICES

# COLLIER COUNTY 2008 POPULATION (PEAK SEASON) DISTRIBUTION BY TRAFFIC ANALYSIS ZONE






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# **ANNUAL UPDATE AND INVENTORY REPORT ON PUBLIC FACILITIES 2008**


## **CATEGORY “A” FACILITIES (Concurrency Regulated)**

- 1. County Roads**
  - 2. Drainage Canals and Structures**
  - 3. Potable Water System**
  - 4. Sewer Treatment and Collector Systems**
  - 5. Solid Waste**
  - 6. Parks and Facilities**
- 



# COUNTY ROADS

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- **COUNTY ARTERIAL AND COLLECTOR ROADS FACILITY SUMMARY FORM**
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    - **ATTACHMENT H: PROJECTED COLLIER COUNTY DEFICIENT ROADS MAP**
    - **ATTACHMENT I: TCMA REPORT – EAST CENTRAL TCMA AND NORTHWEST TCMA**
- 



**2008 AUIR FACILITY SUMMARY FORM**

**Facility Type:** County Arterial and Collector Roads (Category A)

**Level of Service Standard:** Variable - "D" or "E"

**Unit Cost:** Variable (Average = \$8,171,422 / lane mile) Per Current Approved Transportation Impact Fee

	<u>Capital Roads</u>
Recommended Work Program FY 09-13	\$499,438,000
Recommended Revenues FY 09-13	\$499,438,000
Five-Year Surplus or (Deficit)	\$0

1. Existing Revenue Sources:

A. Current Revenues CIE FY 08-13

Impact Fees	\$170,000,000
Gas Taxes	\$104,588,000
General Fund	\$119,509,000
Grants/Reimbursements	\$23,857,000
Commercial Paper Loan	\$50,000,000 *
Carry Forward including Bonds	\$34,552,000 **
Revenue Reserve (Shown as Negative Number)	(\$3,068,000)
TOTAL	<u>\$499,438,000</u>

2. Supplemental Revenue Sources:

A. Alternative I

None Required

B. Alternative II

None Required

Recommended Action:

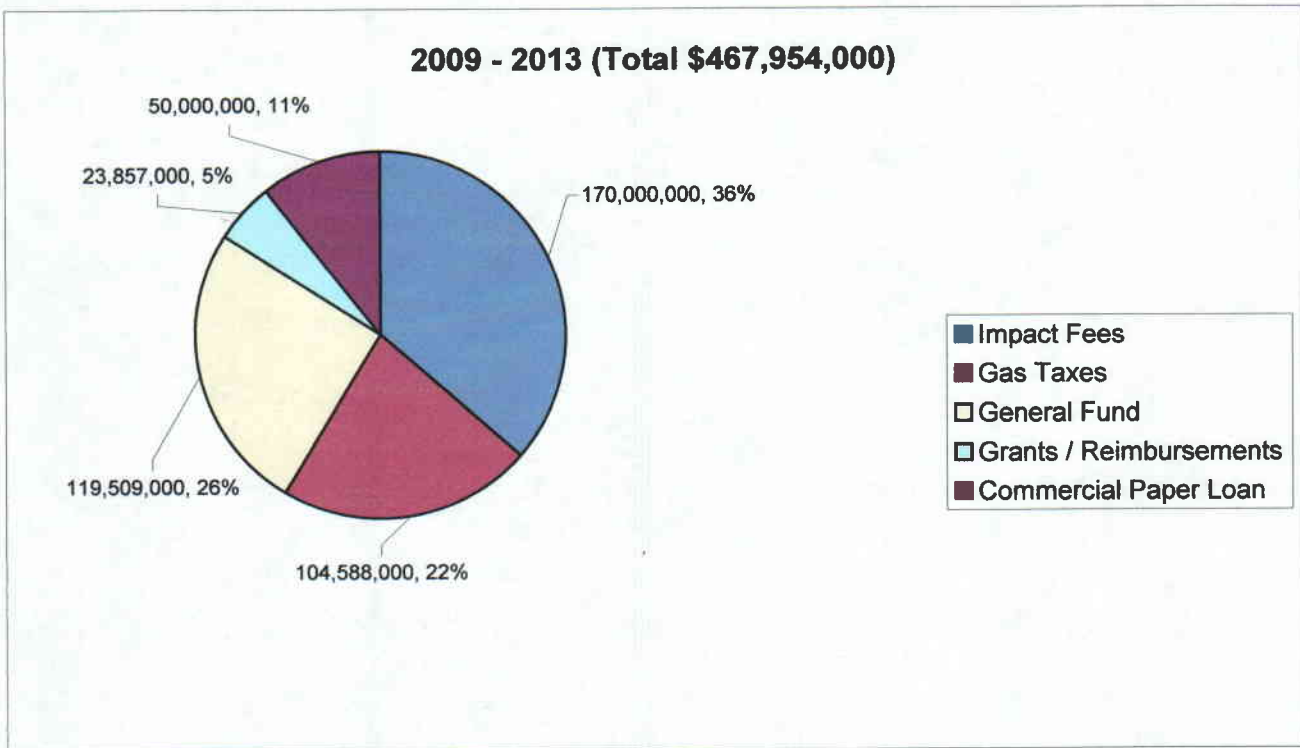
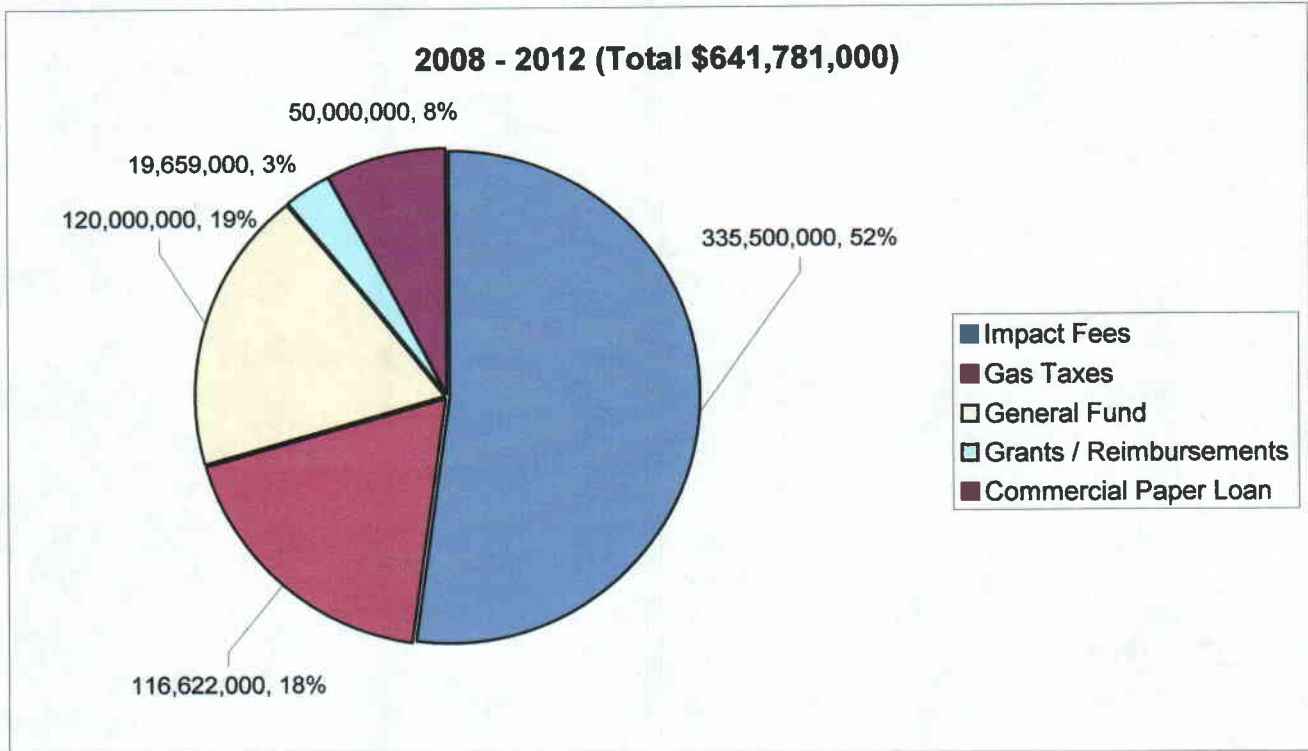
That the BCC direct staff to include County road projects appearing on "Proposed Transportation Five-Year Work Program," (Attachment D), as detailed in the "Collier County Transportation Planning Database" (Attachment F), in the next Annual CIE Update and Amendment with the application of revenues outlined on the Road Financing Plan (Attachment E) to establish statutorily required financial feasibility of the CIE.

\* \$50 Million Commercial Paper will only be drawn down in increments as needed to fund the work program.

\*\* Carry Forward includes the budgeted FY09 Carry forward and does not include project funding encumbered in prior fiscal years to be paid out over the following schedule for phases (average time for payout): This Carry Forward number that includes the roll of encumbrances will not be available until after October 1, 2008.

1. Design - 25 months
2. Right-of-Way - 4 years
3. Construction - 30-36 months

# Fiscal Year Revenues 2007 vs. 2008



\* Charts do not include Carry Forward or Revenue Reserve

## Attachment "B"

### TRANSPORTATION EXISTING CONDITIONS REPORT – 2008

#### **Objective**

To provide the Board of County Commissioners with an "existing conditions" analysis of the transportation system in Collier County.

#### **Purpose**

This analysis is provided to assist in the preparation of the Annual Update and Inventory Report (AUIR), and more specifically to assist in the determination of adequate (transportation) public facilities and to guide budgeting and project programming in the CIE.

#### **Considerations:**

- The traffic counts are based on factoring the four quarterly traffic counts to average annual daily traffic and taking an average of those counts. These factors include an axle factor of .9524 and a peak season weekday factor that varies depending on the week that the traffic count was conducted.
- The level of service (LOS) threshold volumes are calculated using Synchro software and is based on the 250<sup>th</sup> highest hour, which essentially equates to the 100<sup>th</sup> highest hour after omitting February and March data, consistent with the Growth Management and Land Development Code provisions.
- While the AUIR deals with system capacity and maintaining the established LOS through our Concurrency Management System. There is a need to focus our attention on the growing demand for Operations and Maintenance (O&M) funding. Our bridges and culverts are approaching, or at their 50 year life-cycle. Over 230 additional lane miles of urban and rural, arterial and local roads have been added to the county system for maintenance since 2000. Historical funding for O&M has not addressed industry standards for anticipated life-cycles which are 6 to 8 years for urban roadways and 12 to 15 years for rural roadways. Funding for road resurfacing is such that required maintenance can only be performed at an average 50 year cycle. Gas taxes are already at the maximum allowed by statute and unfortunately, declining as prices at the pumps are on the rise. Complicating this issue is the reliance on impact fees as directed by our "growth pays for growth" policy which can only be used to add additional capacity or new lane miles to the system. The prior aggressive program to add capacity allowed existing system mileage to be rebuilt and the mileage to be maintained throughout the construction cycle by the contractor. The limited, non-impact fee resources may need to be pulled out of capacity improvements to cover the O & M shortfall. This could reduce capital projects in the work program resulting in concurrency problems and could require an increase in the impact fee rate. With LOS standards already set at "D" or "E", O&M funding should be increased / supplemented by additional revenue sources if safe operations and preservation of the network is to be attained.

#### **Attachments**

Attached is the 2008 Collier County Transportation Planning Database table, which incorporates the proposed FY 09 to FY 13 Capital Improvement Program (CIP).

#### **Observations**

Of the 134 stations collecting traffic counts in the 2007/2008 program, the average decrease in volume between 2006 and 2007 was 10%, which reflects the expected decrease in the rate of growth and is depicted on Attachment C – the average increase between 2005 and 2006 reported in last year's AUIR was 2.19%.



The reduced traffic demand parallels a reduction in revenues for capacity improvements (especially in Impact Fee Collections) and a resulting reduction in capital projects in the Capital Improvement Element (CIE).

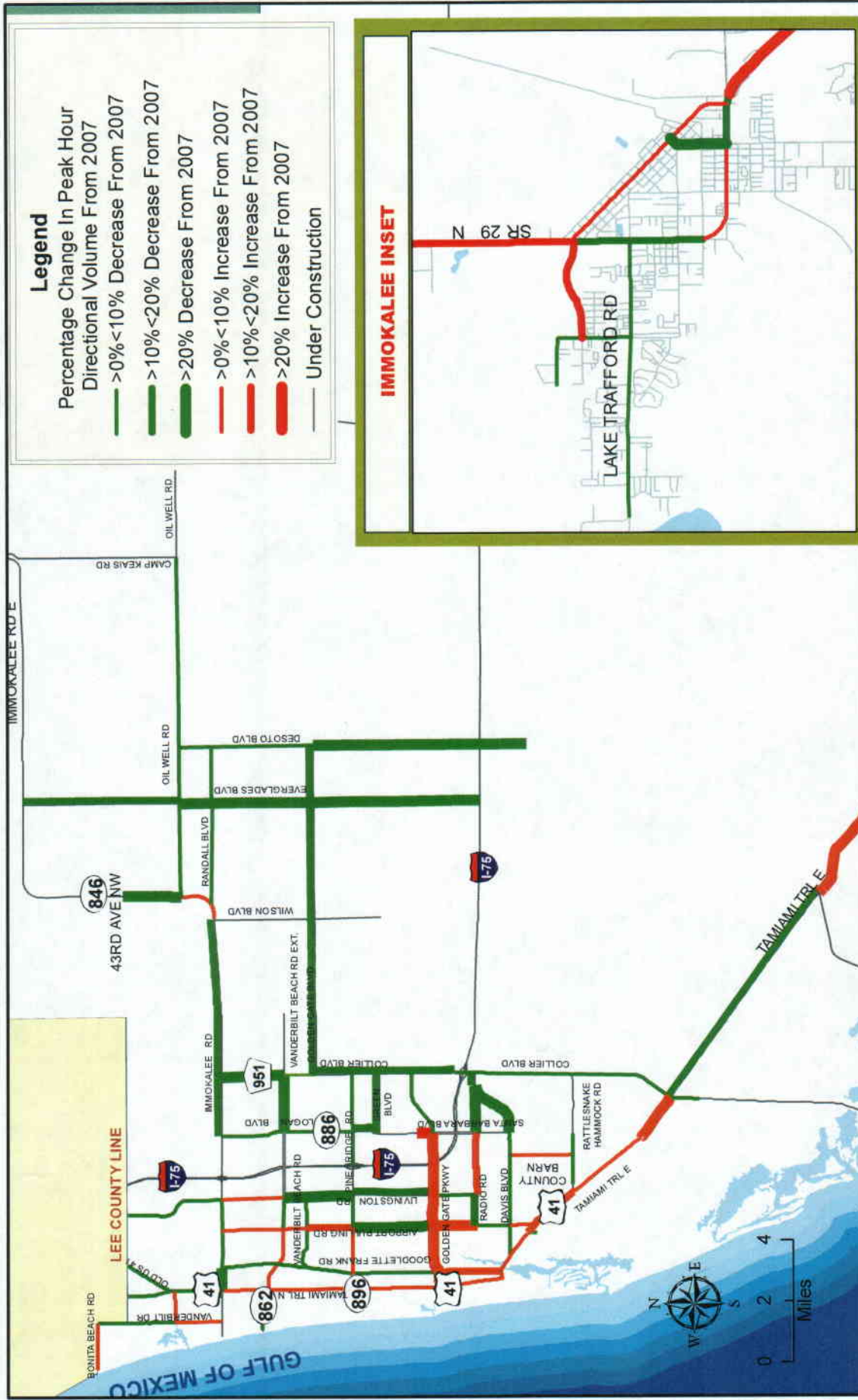
For the 2007/2008 traffic counts, 71 stations reflected a decrease, 44 stations reflect an increase, and 10 stations show no change over the previous year. Listed below are the numbers and corresponding percentages for the count stations, including the percentage changes between 2006 and 2007:

- 16% (21 stations) show an increase greater than 10% over 2006
- 7% (9 stations) show an increase of 5-10% over 2006
- 11% (14 stations) show an increase of up to 5% over 2006
- 9% (10 stations) show no change over 2006
- 20% (25 stations) show a decrease of 5% or less over 2006
- 16% (20 stations) show a decrease of 5-10% over 2006
- 21% (26 stations) show a decrease of greater than 10% over 2006

Note:

1. Some count stations experienced extreme year-to-year fluctuations due to construction traffic and some stations are new due to new segment breaks without previous year comparisons.
2. Traffic counts indicate that volumes are down approximately 10% county wide. However, there is concern that the artificially low background traffic volume will allow additional development approval which does not consider the current vacancy rate factor and the addition of trips on the network. Observation and sampling indicate there is a 20% vacancy rate east of Collier Blvd and 20% to 50% vacancy rate in certain urban areas west of Collier Blvd. Above normal vacancy rates have caused artificially low background traffic counts. Residential and commercial trips are removed from the "Trip Bank" within one year of receiving their certificate of occupancy and assumed to be occupied and accounted for in the background traffic. As vacant units realize occupancy, the traffic counts will begin to rise without additional development or a corresponding development concurrency review process.

# ATTACHMENT C



## Percentage Change In Peak Hour Directional Volume From 2007



Transportation Services Division  
Transportation Planning Department

AUIR Update 2008 5 Year Work Program/CIE  
(Dollars shown in Thousands)

Project #	Project Name	FY09 Amount		FY10 Amount		FY11		FY12		FY13		Amount
<b>SUMMARY OF PROJECTS</b>												
60005	Goodlette Frank (PRR-GGPKWY)											-
60006	Golden Gate Pkwy Overpass											-
60018	Immokalee Rd/Collier Blvd -43rd											-
66045	Immokalee Rd I75 - Collier Blvd.											-
60169	Rattlesnake Polly to Collier Blvd											-
62081A	SBB Ph I Cst/Ph I ROW											-
60091	Santa Barbara Blvd/Polly	1,506	R									1,506
63051	Vanderbilt Bch Rd/Airport-Collier Blvd.											-
65061	Collier Blvd/Immok Rd-GG Blvd.											-
66042	Immokalee Rd/US41-I75											-
60001A	Collier Blvd (US 41 to Davis)											-
	<i>Subtotal</i>	<i>1,506</i>		<i>-</i>		<i>-</i>		<i>-</i>		<i>-</i>		<i>1,506</i>
60001B	Collier Blvd (Davis to N of GG Main Canal)	10,013	C/I	12,987	C/I							23,000
60073	Davis Boulevard - Collier - Radio	21,100	C/I									21,100
60101	County Barn Road/Davis - CR864	703	R									703
60168	Vanderbilt Beach Rd/Collier Blvd-Wilson	3,097	R	10,724	R	2,500	R	2,900	R	11,500	R	30,721
60040**	Golden Gate Blvd/Wilson E to Desoto	2,320	R	10,150	R	3,600	R	38,100	C/I			54,170
68056**	Collier Blvd (GGB to Green)	2,000		6,715	R			23,400	C/I			32,115
68056B	Collier Blvd (N GG Canal - Green)							2,000	R	27,000	D/C/I	29,000
60065	Randall Blvd	1,000	R									1,000
60060	I75 Interchange @ Everglades											-
60176	Davis Blvd Lighting											-
60106	Northbrooke Widening/Valewood Ext.	5,000	C/I/R									5,000
62081B	SBB - Copperleaf to Green	4,800	R							16,100	C/I	20,900
60044	Oil Well (Immok + 1.5 mile & Camp Keis + 1.5 mile)	24,620	C	21,380	C/I							48,000
60044	Oil Well (Everglades - E Desoto)											-
60020	Wilson Blvd (GGB - Immok Rd)					1,000	D	9,940	R	2,000	R	12,940
60027	Golden Gate Pkwy											-
	Advanced Construction Contingency	11,973		3,975		4,000		3,044		4,000		26,992
	<i>Subtotal</i>	<i>86,626</i>		<i>65,931</i>		<i>11,100</i>		<i>79,384</i>		<i>60,600</i>		<i>303,641</i>
	<b>Total</b>	<b>88,132</b>		<b>65,931</b>		<b>11,100</b>		<b>79,384</b>		<b>60,600</b>		<b>305,147</b>
<b>Operations Improvements/Programs</b>												
66066	Bridge Repairs/Improvements	2,000		5,000		5,000		5,000		5,000		22,000
66065	Major Intersection Improvements	1,000		1,000		1,000		1,000		1,000		5,000
60016	Intersection Safety/Capacity Improve	750		1,750		1,750		1,750		1,750		7,750
60172	New Traffic Signals	750		750		750		750		750		3,750
69122	Shoulder Safety Program	50		50		50		50		50		250
60163	Traffic Calming/Studies	250		250		250		250		250		1,250
69081	Pathways/Sidewalks Bike Lanes	500		500		500		500		500		2,500
35010	Transit Facility & Transfer Site											-
61010	Transit Enhancements	1,750		1,500		1,250		1,000		1,000		6,500
	Major Roadway											-
60173	Resurfacing/Reconstruction											-
TBD	Road Refurbishing	109		600		600		600		600		2,509
	<b>Subtotal Operations</b>											
	<b>Improvements/Programs</b>	<b>7,159</b>		<b>11,400</b>		<b>11,150</b>		<b>10,900</b>		<b>10,900</b>		<b>51,509</b>
60003	Collector Roads/Minor Arterial Roads	1,602		1,635		1,635		1,635		1,635		8,142
60171	Advanced ROW	1,909		1,700		1,600		1,600		1,600		8,409
	Transfers to other funds	3,604		4,300		4,550		4,800		4,800		22,054
	Impact Fee Refunds	802		1,000		1,000		1,000		1,000		4,802
	Debt Service Pymts Commercial Paper	-		-		9,500		9,525		10,980		30,005
	Debt Service Payments	13,874		13,874		13,874		13,874		13,874		69,370
	<b>Total Funding Request All Funds</b>	<b>117,082</b>		<b>99,840</b>		<b>54,409</b>		<b>122,718</b>		<b>105,389</b>		<b>499,438</b>
<b>Revenues</b>												
	Impact Fees/COA Revenue	35,000		30,000		30,000		35,000		40,000		170,000
	Gas Tax Revenue	17,905		21,372		22,075		19,179		24,057		104,588
	Grants/Reimbursements	9,184		2,298		2,000		1,875		8,500		23,857
	Short Term Loan Commercial Paper			22,170				18,998		8,832		50,000
	Transfers											-
	Carry Forward	34,552										34,552
	Stormwater Funding for Projects											-
	General Fund	23,509		24,000		24,000		24,000		24,000		119,509
	General Fund Turn back											-
	Interest											-
	Revenue Reserve	(3,068)		-		-		-		-		(3,068)
	<b>Total 5 Year Revenues</b>	<b>117,082</b>		<b>99,840</b>		<b>78,075</b>		<b>99,052</b>		<b>105,389</b>		<b>499,438</b>
	Gross Surplus/Shortfall	-		-		23,666		(23,666)		-		-
	<b>Cumulative</b>					<b>23,666</b>						

Key:  
S = Study  
D = Design  
M = Mitigation  
C = Construction  
R = ROW  
LS = Landscape  
I = Inspection  
AM = Access Management  
LP- SIB Loan Repayment to State

\* Production Ready May allow for letting in FY2011  
\*\* Schedule has been adjusted based on need and financing  
Depending on actual costs for Oil Well Road, Contingency in FY09 would be used for projects including:  
▪ Pine Ridge Road @ US 41 Intersection Improvements @ 750,000 ROW, \$300,000 Construction.  
▪ Vanderbilt Beach Road @ Airport Road Intersection Improvements @ \$1,600,000 Construction.  
▪ Potential advanced funding for negotiated Vanderbilt Beach Road ROW Acquisition.



Attachment "E"

Road Financing Plan Update

	FY 09	FY 10	FY 11	FY 12	FY 13	5 Year Total
Project/Program Commitments	102,208,000	84,966,000	30,035,000	98,344,000	79,535,000	395,088,000
Existing Debt Service	13,874,000	13,874,000	13,874,000	13,874,000	13,874,000	69,370,000
Commercial Paper Debt	-	-	9,500,000	9,500,000	10,980,000	29,980,000
Impact Fee Credits	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
<b>Total Expenses</b>	<b>117,082,000</b>	<b>99,840,000</b>	<b>54,409,000</b>	<b>122,718,000</b>	<b>105,389,000</b>	<b>499,438,000</b>
Impact Fee Revenue	35,000,000	30,000,000	30,000,000	35,000,000	40,000,000	170,000,000
Gas Tax Revenue	17,905,000	21,372,000	22,075,000	19,179,000	24,057,000	104,588,000
General Fund Pay As You Go + Roads Buydown	23,509,000	24,000,000	24,000,000	24,000,000	24,000,000	119,509,000
Grants/Reimbursements *	9,184,000	2,298,000	2,000,000	1,875,000	8,500,000	23,857,000
Commercial Paper Loan BCC Approved 5/8/07 10B**	(3,068,000)	-	-	18,998,000	8,832,000	50,000,000
Revenue Reserve ( 5% Budgeted by Statute)	34,552,000	-	-	-	-	(3,068,000)
Carry Forward (Surplus or Shortfall) ***	-	-	-	-	-	34,552,000
<b>Total Revenues</b>	<b>117,082,000</b>	<b>99,840,000</b>	<b>78,075,000</b>	<b>99,052,000</b>	<b>105,389,000</b>	<b>499,438,000</b>
<b>Fiscal Year Balance (Surplus or Shortfall)</b>	<b>-</b>	<b>-</b>	<b>23,666,000</b>	<b>(23,666,000)</b>	<b>-</b>	<b>-</b>
<b>Cumulative Fiscal Year Balance (Surplus or Shortfall)</b>	<b>-</b>	<b>-</b>	<b>23,666,000</b>	<b>-</b>	<b>-</b>	<b>-</b>

\* Includes programmed FDOT Grants and Payment in Lieu Proceeds

\*\* \$50 Million Commercial Paper will only be drawn down in increments as needed to fund the work program.

\*\*\* Carry Forward includes the budgeted FY09 Carry forward and does not include project funding encumbered in prior fiscal years to be paid out over the following schedule for phases (average time for payout): This Carry Forward number that includes the roll of encumbrances will not be available until after October 1, 2008.









2008 AUIR Update Deficiencies Report

Results

Listed below are the roadway links that are currently deficient or are projected to be deficient under the concurrency system within the next five years and the programmed and proposed solutions to solve these deficiencies:

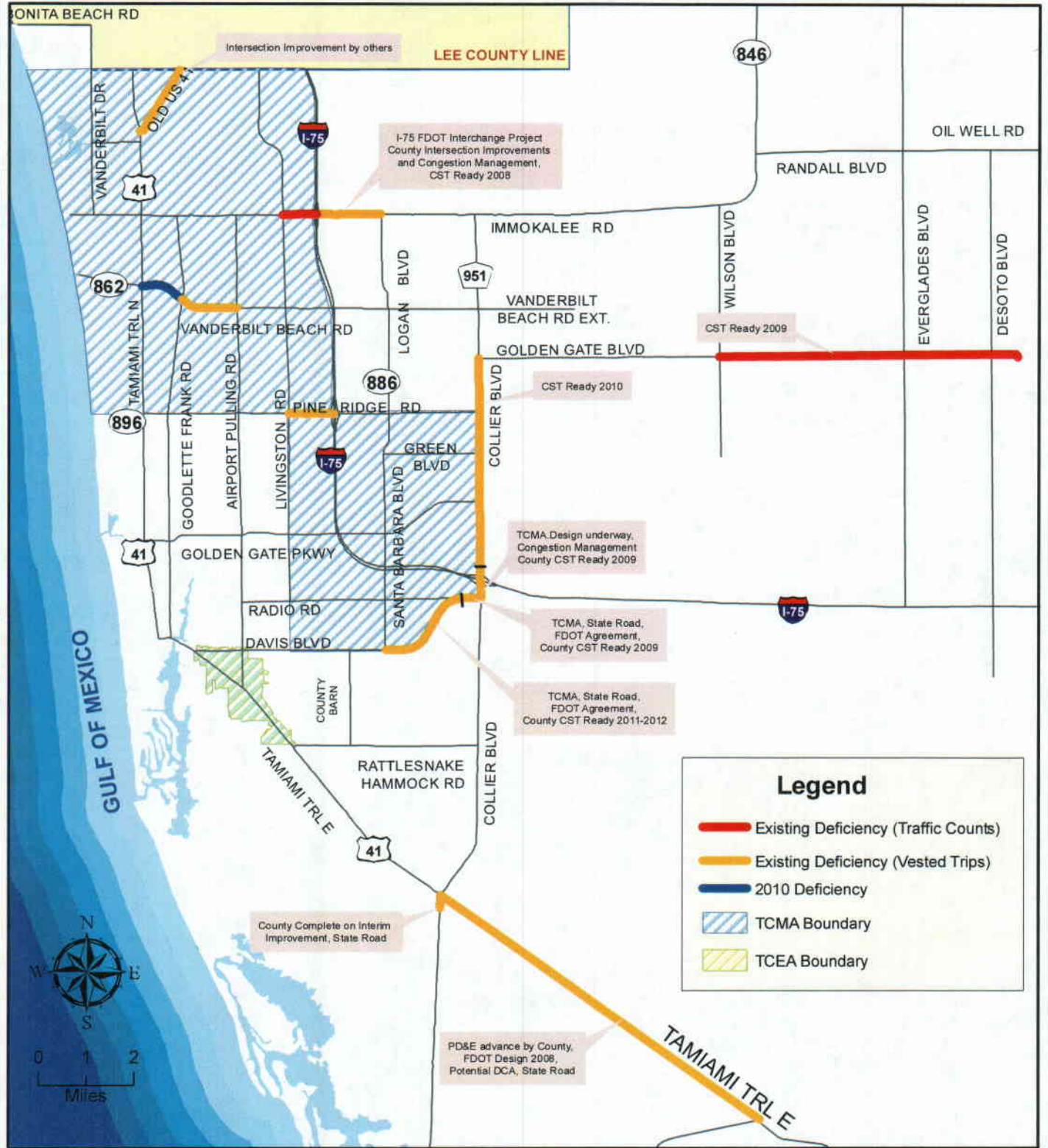
2008 Existing Deficiencies Based on Traffic Counts						
ID #	Year	Roadway	From/To	Trip Bank	Remaining Capacity	TCMA Solutions
42.2	Existing	Immokalee Rd.	Livingston Rd. to I-75	295	-748	EC
123.0	Existing	Golden Gate Blvd.	Wilson Blvd to East of Everglades Blvd	5	-157	EC
124.0	Existing	Golden Gate Blvd.	East of Everglades Blvd to DeSoto Blvd	0	-152	EC
2008 Existing Deficiencies based on vested trips added to traffic counts						
Item #	Year	Roadway	From/To	Trip Bank	Remaining Capacity	TCMA Solutions
16.1	Existing	Davis Blvd.	Santa Barbara Blvd. to Radio Rd.	207	-30	EC
16.2	Existing	Davis Blvd.	Radio Rd. to Collier Blvd.	484	-138	EC
31	Existing	Collier Blvd.	Golden Gate Blvd. to Green Blvd.	311	-15	EC
33	Existing	Collier Blvd.	I-75 to Davis Blvd.	767	-250	EC
36.1	Existing	Collier Blvd (SR 951)	US-41 to Wal Mart Driveway	856	-78	EC
36.2	Existing	Collier Blvd (SR 951)	Wal Mart Driveway to Manatee Rd.	710	-124	EC
43.1	Existing	Immokalee Rd.	I-75 to Logan Blvd.	741	-221	EC
62.0	Existing	Old US-41	Lee County to US-41	120	-3	EC
67.2	Existing	Pine Ridge Rd.	Livingston Rd. to I-75	693	-456	EC
95.0	Existing	Tamiami Trail East	Collier Blvd. to San Marco Dr.	532	-129	EC
110.2	Existing	Vanderbilt Beach Rd.	Goodlette-Frank Rd. to Airport-Pulling Rd.	638	-338	NW
Projected Deficiencies						
Item #	Year	Roadway	From/To	Trip Bank	Remaining Capacity	TCMA Solutions
88.0	2010	SR82	Lee County to SR29	48	87	
110.1	2010	Vanderbilt Beach Rd.	US-41 to Goodlette-Frank Rd.	236	64	NW

Prepared By: Nick Casalanquida, Director  
Transportation Planning Dept

Date: \_\_\_\_\_

- NOTES:
- TCMA = Transportation Concurrency Exception Area
  - EC = East Central TCMA
  - NW = Northwest TCMA
  - ITMS = Intelligent Traffic Management Systems

# ATTACHMENT H



## PROJECTED COLLIER COUNTY DEFICIENT ROADS FY 2008/2009 - 2012/2013



Transportation Services Division  
Transportation Planning Department



# TCMA Report - 2008 AUIR

## Collier County Transportation Concurrency Management System

AUIR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
<b>East Central TCMA</b>							
14.0	Davis Boulevard	Lakewood Boulevard	County Barn Road	0.77	1.90	4	7.60
15.0	Davis Boulevard	County Barn Rd	Santa Barbara Boulevard	0.77	0.70	4	2.80
16.1	Davis Boulevard	Santa Barbara Boulevard	Radio Road	<b>1.06</b>	1.75	2	3.50
16.2	Davis Boulevard	Radio Road	Collier Boulevard	<b>1.05</b>	0.65	2	1.30
21.0	Golden Gate Parkway	I-75	Santa Barbara Boulevard	0.47	1.10	6	6.60
22.0	Golden Gate Parkway	Santa Barbara Boulevard	Collier Boulevard	0.94	2.10	4	8.40
27.0	Green Boulevard	Santa Barbara Boulevard	Collier Boulevard	0.80	2.00	2	4.00
31*	Collier Boulevard	Pine Ridge Road	Green Boulevard	0.78	0.87	4	3.48
32.1	Collier Boulevard	Green Boulevard	Golden Gate Parkway	0.98	1.04	4	4.16
32.2	Collier Boulevard	Golden Gate Parkway	I-75	0.97	1.27	4	5.08
33.0	Collier Boulevard	I-75	Davis Boulevard	<b>1.05</b>	0.78	4	3.12
49.0	Logan Boulevard	Pine Ridge Road	Green Boulevard	0.76	2.60	4	10.40
54.0	Livingston Road	Pine Ridge Road	Golden Gate Parkway	0.51	2.60	6	15.60
55.0	Livingston Road	Golden Gate Parkway	Radio Road	0.51	1.40	6	8.40
67.1	Pine Ridge Rd	Airport Road	Livingston Road	0.96	1.00	6	6.00
67.2	Pine Ridge Rd	Livingston Road	I-75	<b>1.10</b>	1.00	6	6.00
68.0	Pine Ridge Rd	I-75	Logan Boulevard	0.76	1.10	6	6.60
70.0	Radio Rd	Livingston Road	Santa Barbara Boulevard	0.66	1.90	4	7.60
71.0	Radio Rd	Santa Barbara Boulevard	Davis Boulevard	0.52	1.50	4	6.00
76.0	Santa Barbara Boulevard	Green Boulevard	Golden Gate Parkway	0.80	1.70	4	6.80
77.0	Santa Barbara Boulevard	Golden Gate Parkway	Radio Road	0.56	1.40	6	8.40
78.0	Santa Barbara Boulevard	Radio Road	Davis Boulevard	0.41	1.10	6	6.60
125.0	Pine Ridge Rd	Logan Boulevard	Collier Boulevard	0.64	1.90	4	7.60

**Total Lane Miles:** **146.04**

**Lane Miles <= 1.0 V/C:** **132.12**

**Percent Lane Miles Meeting LOS Standard:** **90.47%**

\* TCMA boundary is different from the concurrency segments shown in the AUIR Attachment "F"



# TCMA Report - 2008 AUJR

## Collier County Transportation Concurrency Management System

AUJR ID	Name	From	To	PkHr-PkDir V/C Ratio	Length	# Lanes	Lane Miles
<b>Northwest TCMA</b>							
1.0	Airport Road	Immokalee Road	Vanderbilt Beach Road	0.66	2.00	4	8.00
2.1	Airport Road	Vanderbilt Beach Road	Orange Blossom Dr.	0.53	0.81	6	4.86
2.2	Airport Road	Orange Blossom Dr.	Pine Ridge Road	0.51	1.40	6	8.40
20.1	Golden Gate Parkway	Airport Road	Livingston Road	0.34	1.00	6	6.00
20.2	Golden Gate Parkway	Livingston Road	I-75	0.34	1.10	6	6.60
23.0	Goodlette-Frank Road	Immokalee Road	Vanderbilt Beach Road	0.81	1.80	2	3.60
24.0	Goodlette-Frank Road	Vanderbilt Beach Road	Pine Ridge Road	0.62	2.40	6	14.40
39.0	111th Avenue N.	Gulfshore Drive	Vanderbilt Drive	0.31	0.70	2	1.40
40.0	111th Avenue N.	Vanderbilt Drive	US 41	0.44	0.90	2	1.80
41.1	Immokalee Road	US 41	Goodlette-Frank Road	0.81	0.75	6	4.50
41.2	Immokalee Road	Goodlette-Frank Road	Airport Road	0.84	1.25	6	7.50
42.1	Immokalee Road	Airport Rd	Livingston Road	0.93	1.00	6	6.00
42.2	Immokalee Road *	Livingston Road	I-75	0.89	0.60	6	3.60
51.0	Livingston Road	Imperial Street	Immokalee Road	0.38	3.00	6	18.00
52.0	Livingston Road	Immokalee Road	Vanderbilt Beach Road	0.41	2.10	6	12.60
53.0	Livingston Road	Vanderbilt Beach Road	Pine Ridge Road	0.54	2.20	6	13.20
63.0	Seagate Drive	Crayton Road	US 41	0.48	0.50	4	2.00
64.0	Pine Ridge Road	US 41	Goodlette-Frank Road	0.79	0.50	6	3.00
65.0	Pine Ridge Road	Goodlette-Frank Road	Shirley Street	0.88	0.70	6	4.20
66.0	Pine Ridge Road	Shirley Street	Airport Road	0.79	0.90	6	5.40
98.0	Tamiami Trail North	Lee County Line	Wiggins Pass Road	0.82	1.50	6	9.00
99.0	Tamiami Trail North	Wiggins Pass Road	Immokalee Road	0.97	1.50	6	9.00
100.0	Tamiami Trail North	Immokalee Road	Vanderbilt Beach Road	0.94	1.50	6	9.00
101.0	Tamiami Trail North	Vanderbilt Beach Road	Gulf Park Drive	0.78	1.30	6	7.80
102.0	Tamiami Trail North	Gulf Park Drive	Pine Ridge Road	0.69	1.50	6	9.00
109.0	Vanderbilt Beach Road	Gulfshore Drive	US 41	0.85	1.80	2	3.60
110.1	Vanderbilt Beach Road	US 41	Goodlette-Frank Road	0.93	1.00	4	4.00
110.2	Vanderbilt Beach Road	Goodlette-Frank Road	Airport Road	<b>1.15</b>	1.10	4	4.40
111.1	Vanderbilt Beach Road	Airport Road	Livingston Road	0.50	1.00	6	6.00

# TCMA Report - 2008 AUIR

## Collier County Transportation Concurrency Management System

111.2	Vanderbilt Beach Road	Livingston Road	Logan Boulevard	0.50	2.00	6	12.00
114.0	Vanderbilt Drive	Bonita Beach Rd	Wiggins Pass Road	0.56	2.70	2	5.40
115.0	Vanderbilt Drive	Wiggins Pass Road	111th Avenue	0.42	1.40	2	2.80
117.0	Wiggins Pass Road	Vanderbilt Drive	US 41	0.49	1.00	2	2.00

**Total Lane Miles:** 219.06

**Lane Miles <= 1.0 V/C:** 217.91

**Percent Lane Miles Meeting LOS Standard:** 99.48%

\* V/C in this table is based on the completed 6-lane service volume. This segment is currently policy constrained to a 4-lane service volume



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# COUNTY DRAINAGE CANALS AND STRUCTURES

## CONTENTS

- SUMMARY FORM
  - TABLE 1: STORMWATER CAPITAL IMPROVEMENT ELEMENT (CIE) SUMMARY - 2008
  - TABLE 2: CAPITAL IMPROVEMENT ELEMENT (CIE) WORK PROGRAM / NON-CIE IMPROVEMENT AND MAINTENANCE PROJECT WORK PROGRAM / OPERATIONS SUPPORT / REVENUE – FUND 325 AND 324
  - PRIMARY-SECONDARY SURFACE WATER DRAINAGE SYSTEM MAP
-



## **2008 AUIR FACILITY SUMMARY FORM – Stormwater Management**

**Facility Type:** County Maintained System of Secondary Stormwater Management Canals & Structures (Category A)

### **Level of Service (LOS) Standard:**

Stormwater Management seeks to manage an important resource. As such, the Stormwater Level of Service (LOS) reflects both Flood Attenuation by controlling flooding through discharge rate (off-site discharge) measured in cubic feet per second (cfs), as well as Water Quality Treatment volume measured in acre-feet for aquifer recharge and water quality protection. All new public and private construction is required by county ordinance to adhere to the current regulations of the South Florida Water Management District (SFWMD). Both LOS standards are adequately accounted for in these regulations. Stormwater discharge rate is computed based on a storm event of 3-day duration and 10-year or 25-year return frequency. More restrictive maximum discharge rates are specified by geographic boundaries detailed in **Ordinance 90-10** and **Ordinance 2001-27**. Water quality treatment volumetric requirements are in general equal to one inch of runoff from the proposed developed site area or, if the site contains more than 40% impervious area, equal to the total runoff of 2.5 inches times the percentage imperviousness. Some public works rehabilitation and retrofit projects are occasionally approved with variances to these LOS requirements. Consistent with the Growth Management Plan, this AUIR specifically addresses the four (4) projects in the Stormwater Capital Improvement Element (CIE) in relation to both flood attenuation and water quality treatment. The status of each project is reported in table 1.

Maps of observed flooding are updated by Stormwater Management as observations of flooding are collected following large events on an on-going basis. This includes mainly observations reported through the Emergency Management Services from fire, sheriff, and ambulance crews, from property owners, from Road Maintenance and Stormwater personnel, and, on occasion, by other County staff. No LOS is applied for the County roadside tertiary system where the primary focus will be on maintenance by the Road and Maintenance Department. This parallels the process for roadway LOS for the major transportation network that is modeled, but doesn't include local streets. As with transportation, it is proposed that capital project investments of the stormwater program funding (.15mil) be focused on the secondary drainage canals and structures and the National Pollutant Discharge Elimination System (NPDES).

On January 29, 2008 the Board of County Commissioners adopted Resolution No. 2008-80 clarifying the stormwater policy and stating that improvement projects shall be primarily focused on the secondary system directed to flow capacity improvements and water retention for water quality treatment and aquifer storage/recharge. Capital project funds would only be spent on the tertiary system issues where an improvement of a tertiary system is shown as the most effective and efficient means to resolve a secondary system deficiency or where there is a specific health, safety and welfare concern (i.e. flooding into homes) on the tertiary system. Again, this parallels the LOS and capital fund expenditures for roadways. This AUIR provides the basis for updating the progress of the county's stormwater program.

Beyond the specific required reporting for the AUIR, the entire secondary system of stormwater management canals and structures is being assessed to determine it's current LOS and needed improvements. This will fully document the current capabilities of the secondary system to treat and convey stormwater from the tertiary (roadside) system to the primary system, which is maintained and operated by the Big Cypress Basin of the South Florida Water Management District. Information from the Watershed Management Planning effort currently underway by the

Community Development and Environmental Services Division will indicate the secondary system existing capacities and identify the location and nature of deficiencies directing the addition of projects for inclusion in future AUIR's and CIE's. The schedule for completing the system assessment is as follows:

**Task one:** Field survey the existing system (inventory) for input into hydrologic models of the master plan project. Completion date scheduled for January 2009.

**Task two:** Computer model construction using the updated survey info on the secondary system and existing primary system (capacity). This will be accomplished as the first step of the Watershed Master Plan project and will establish demand and capacity of the secondary system by basin. Date for completing the hydrologic computer models is scheduled for the end of 2009.

**Task three:** Use the computer model to identify where the demand exceeds the capacity of secondary system (specific deficiencies) and propose upgrades to the system. This will begin as part of the 2009 modeling effort and be refined in forward years to address specific areas.

**Stormwater Improvement Budget FY 09 thru FY 13**

Capital Improvement Element (CIE)	\$ 48,969,680
Non-CIE Improvement and Maintenance Projects	\$ 6,373,536
Operations Support	<u>\$ 4,682,484</u>
Total Stormwater Improvement Budget	\$ 60,025,700

**TABLE 1**

**Stormwater Capital Improvement Element (CIE) Summary – 2008**

**Capital Improvement Element (CIE) Drainage System Deficiencies**

CIE	SAP No.	Project	Water Quality Treatment (acre- feet)			Flood Attenuation/Discharge Rate (cfs)			
			LOS Need	Current	5 yr CIE	Shortfall	LOS Need	Current	5 yr CIE
185	510185	Freedom Park (Gordon River Water Quality Park)	24.6	24.6	0	0	NA (1)	NA (1)	NA (1)
1011	511011	Lely Area Stormwater Improvement Project (LASIP)	372	234	138	0	1546	1105	221 (2)
8031	518031	Gateway Triangle Stormwater Improvements	11.25	1.80	1.87	7.58 (3)	45	0	0
TBD	TBD	Belle Meade Stormwater Improvements	(4)	(4)	(4)	(4)	(4)	(4)	(4)

Notes: (1) The Water Quality Park by design adds WQ treatment capacity with negligible increase in attenuation.

(2) LASIP construction in FY 14 and FY 15 will address remaining 221 cfs.

(3) Potential unavailability of land, as acknowledged by permitting agencies, will leave a 7.58 acre-feet WQ treatment volume shortfall. FY 11 – 13 est. project budget includes funding for land purchase if available.

(4) Information being developed in Watershed Management Planning and Stormwater Modeling efforts.



**TABLE 2****Capital Improvement Element (CIE) Work Program**

No.	SAP No.	Project	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
1	510185	Freedom Park (Gordon River)	\$ 400,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 800,000
2	511011	LASIP	\$ 7,400,000	\$ 6,400,000	\$ 9,200,000	\$ 9,200,000	\$ 7,800,000	\$ 40,000,000
3	518031	Gateway Triangle	\$ 1,359,500	\$ 2,800,000	\$ 800,000	\$ 700,000	\$ 1,200,000	\$ 6,859,500
4	510059	Belle Meade Area Stormwater Improvements					\$ 700,000	\$ 700,000
5		Contingency	\$ 132,400	\$ 121,252	\$ 120,039	\$ 118,839	\$ 117,650	\$ 610,180
		SubTotal CEI	\$ 9,291,900	\$ 9,421,252	\$ 10,220,039	\$ 10,118,839	\$ 9,917,650	\$ 48,969,680

**Non-CIE Improvement and Maintenance Project Work Program**

No.	SAP	Project	FY 09	FY 10	FY 11	FY 12	FY 13	Total
6	510075	County Wide Swale Improvements	\$ 250,000					\$ 250,000
7	510291	Golden Gate City Outfalls Main. and Repair	\$ 250,000	\$ 250,000	\$ 200,000	\$ 250,000	\$ 250,000	\$ 1,200,000
8	511331	Wiggins Bay Basin (Old US 41) Improvements	\$ 880,000					\$ 880,000
9	511401	County Wide Storm Sewer Improvements	\$ 250,000					\$ 250,000
10	511411	County Wide Stormwater Conveyance Imp.	\$ 250,000					\$ 250,000
11	511441	Stormwater Master Plan Update	\$ 70,000	\$ 100,000	\$ 100,000			\$ 270,000
12	600034	NPDES-TMDL Program	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
13		County Wide SW and Swale Maintenance and Repair		\$ 500,000	\$ 335,000	\$ 400,000	\$ 500,000	\$ 1,735,000
14		Minor Secondary Sys. Interconnects and Repairs		\$ 858,182	\$ 162,557	\$ 138,117	\$ 129,680	\$ 1,288,536
		Sub Total Non-CEI	\$ 2,000,000	\$ 1,758,182	\$ 847,557	\$ 838,117	\$ 929,680	\$ 6,373,536

**Operations Support**

	Interfund Transfers	\$ 955,800	\$ 945,766	\$ 936,304	\$ 926,944	\$ 917,670	\$ 4,682,484
	<b>Total Program Budget</b>	<b>\$ 12,247,700</b>	<b>\$ 12,125,200</b>	<b>\$ 12,003,900</b>	<b>\$ 11,883,900</b>	<b>\$ 11,765,000</b>	<b>\$ 60,025,700</b>

**Revenue Fund 325 and 324**

No.	SAP	Project	FY 09	FY 10	FY 11	FY 12	FY 13	Total
		Grants SFWMD/BCB (1)						
1	510185	Freedom Park Land Cost Reimb (Gordon River)	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
2	511011	LASIP	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
3	518031	Gateway Triangle	\$ 200,000					\$ 200,000
		Grants Subtotal	\$ 2,200,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 10,200,000
4		Trans fm 001 Gen Fund (0.15 mills)	\$ 12,147,500	\$ 10,125,200	\$ 10,003,900	\$ 9,883,900	\$ 9,765,000	\$ 49,825,700
5		Carry Forward	\$ (1,989,800)					
6		Negative 5% Revenue Reserve	\$ (110,000)					
		<b>Total Program Revenue (2)</b>	<b>\$ 12,247,700</b>	<b>\$ 12,125,200</b>	<b>\$ 12,003,900</b>	<b>\$ 11,883,900</b>	<b>\$ 11,765,000</b>	<b>\$ 60,025,700</b>

**NOTES:**

- (1) Revenue from SFWMD/BCB as indicated in BCB's Ten-Year Grant Funding Plan. Additional grant funding being sought.
- (2) On June 22, 2004 the Collier County Board of County Commissioners established a Stormwater Program funded via 0.15 mills Ad Valorem securing funding beginning in FY 05-06 for the next 20 years
- (3) The Belle Mead Stormwater Master Plan was completed in September 2006. Initiation of Belle Mead Stormwater Improvement projects have been deferred until completion of the watershed study effort currently under way by the CDES Engineering and Environmental Services Department. The watershed study effort progress to date includes prioritization of study completion by drainage basin, consultant selection to perform hydrologic and hydraulic modeling and drafting watershed studies. The anticipated completion date of the studies including recommendations and project funding prioritization is fiscal year 2012.

# Primary-Secondary Stormwater Management System Collier County

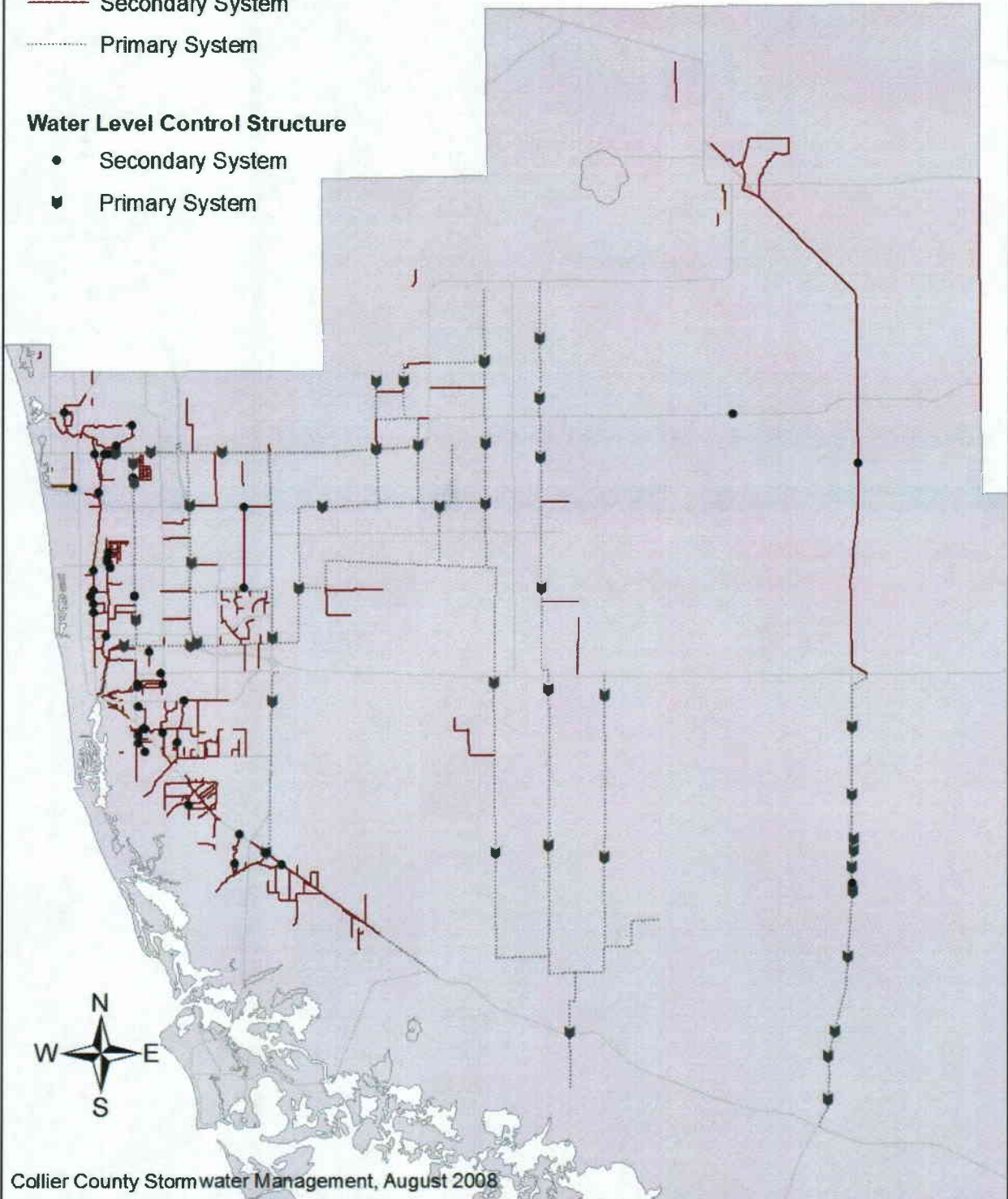
## Legend

### Channels (canal or ditch)

- Secondary System
- ⋯ Primary System

### Water Level Control Structure

- Secondary System
- ▼ Primary System




Collier County Stormwater Management, August 2008



# COUNTY POTABLE WATER

## CONTENTS

- INTRODUCTION
  - POTABLE WATER SYSTEM-TREATMENT FACILITIES LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SERVICE AREA
  - POTABLE WATER SYSTEM LOSS CHART
  - POTABLE WATER SYSTEM-LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT CHANGES FROM 2007 AUIR
  - EXISTING AND FUTURE WATER SERVICE AREAS MAP
  - 2008 AUIR SUMMARY FORM – POTABLE WATER SYSTEM – CAPITAL EXPENDITURES & FUNDING SOURCES
- 



**2008 AUIR**  
**COLLIER COUNTY WATER SEWER DISTRICT - POTABLE WATER SYSTEM**

Introduction:

The Public Utilities Division's 2008 AUIR submittals are based on the population estimates provided to us by Comprehensive Planning on June 11, 2008. There are two notable changes from the 2007 Collier County Water Sewer District (CCWSD) Potable Water System AUIR:

1. The Level of Service Standard (LOSS) for the Potable Water System decreased from 185 gallons per capita per day (gpcd) to 170 gpcd in accordance with the 2008 Water Master Plan, approved by the Board of County Commissioners (BCC) on June 24, 2008.
2. The decrease in population projections from Comprehensive Planning and the LOSS change have led to the existing plants being able to maintain reliability longer without plant expansions or new plant construction.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2008 CCWSD Potable Water System AUIR.

Collier County Government  
Public Utilities Division  
2008 ANNUAL UPDATE AND INVENTORY REPORT (AJUR)

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

August 12, 2008

1 Fiscal Year	2 Peak Population	3 Required Treatment Capacity @ 170 gpcd		4 Required Treatment Capacity Increase from Previous Year	5 Total Constructed Plant Capacity On-line	6 New Plant Constructed Capacity	7 Total Constructed Plant Capacity	8 Total Treatment Reliable System Capacity	9 Retained/ (Deficit) Constructed System Capacity	10 Retained/ (Deficit) Reliable System Capacity	11 Retained/ (Deficit) Reliable Capacity Target Values
		MGD	MGD								
2001	141,994	24.14	24.14		32.00		32.00	28.80	7.86	4.66	1.5 (Min) - 12.0 (Max)
2002	152,276	25.89	25.89	1.75	32.00		32.00	28.80	6.11	2.91	1.5 (Min) - 12.0 (Max)
2003	162,667	27.65	27.65	1.77	32.00		32.00	28.80	4.35	1.15	1.5 (Min) - 12.0 (Max)
2004	172,221	29.28	29.28	1.62	32.00		32.00	28.80	2.72	(0.48)	1.5 (Min) - 12.0 (Max)
2005	180,463	30.68	30.68	1.40	32.00	8.00	40.00	36.00	9.32	5.32	1.5 (Min) - 12.0 (Max)
2006	188,014	31.96	31.96	1.28	40.00		40.00	36.00	8.04	4.04	1.5 (Min) - 12.0 (Max)
2007	196,665	33.43	33.43	1.47	40.00		40.00	36.00	6.57	2.57	1.5 (Min) - 12.0 (Max)
2008	205,433	34.92	34.92	1.49	40.00	12.00	52.00	46.80	17.08	11.88	1.5 (Min) - 12.0 (Max)
2009	214,323	36.43	36.43	1.51	52.00		52.00	46.80	15.57	10.37	1.5 (Min) - 12.0 (Max)
2010	222,393	37.81	37.81	1.37	52.00		52.00	46.80	14.19	8.99	1.5 (Min) - 12.0 (Max)
2011	229,711	39.05	39.05	1.24	52.00		52.00	46.80	12.95	7.75	1.5 (Min) - 12.0 (Max)
2012	246,942	41.98	41.98	2.93	52.00	3.90	55.90	50.31	13.92	8.33	1.5 (Min) - 12.0 (Max)
2013	255,594	43.45	43.45	1.47	55.90		55.90	50.31	12.45	6.86	1.5 (Min) - 12.0 (Max)
2014	264,532	44.97	44.97	1.52	55.90		55.90	50.31	10.93	5.34	1.5 (Min) - 12.0 (Max)
2015	272,865	46.39	46.39	1.42	55.90		55.90	50.31	9.51	3.92	1.5 (Min) - 12.0 (Max)
2016	280,551	47.69	47.69	1.31	55.90		55.90	50.31	8.21	2.62	1.5 (Min) - 12.0 (Max)
2017	288,448	49.04	49.04	1.34	55.90		55.90	50.31	6.86	1.27	1.2 (Min) - 10.0 (Max)
2018	296,555	50.41	50.41	1.38	55.90	5.60	61.50	55.35	11.09	4.94	1.2 (Min) - 10.0 (Max)
2019	304,836	51.82	51.82	1.41	61.50		61.50	55.35	9.68	3.53	1.2 (Min) - 10.0 (Max)
2020	312,170	53.07	53.07	1.25	61.50		61.50	55.35	8.43	2.28	1.2 (Min) - 10.0 (Max)
2021	318,554	54.15	54.15	1.09	61.50		61.50	55.35	7.35	1.20	1.2 (Min) - 10.0 (Max)
2022	325,198	55.28	55.28	1.13	61.50	6.00	67.50	60.75	12.22	5.47	1.2 (Min) - 10.0 (Max)
2023	332,163	56.47	56.47	1.18	67.50		67.50	60.75	11.03	4.28	1.2 (Min) - 10.0 (Max)
2024	339,334	57.69	57.69	1.22	67.50		67.50	60.75	9.81	3.06	1.2 (Min) - 10.0 (Max)
2025	346,157	58.85	58.85	1.16	67.50		67.50	60.75	8.65	1.90	1.2 (Min) - 10.0 (Max)
2026	352,616	59.94	59.94	1.10	67.50	6.00	73.50	66.15	13.56	6.21	1.2 (Min) - 10.0 (Max)
2027	359,191	61.06	61.06	1.12	73.50		73.50	66.15	12.44	5.09	1.2 (Min) - 10.0 (Max)

Collier County Government  
Public Utilities Division  
2008 ANNUAL UPDATE AND INVENTORY REPORT (AUJR)

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

August 12, 2008

**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 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are based on using Bureau of Economic and Business Research (BEER) Medium Range growth rate through 2027. The peak population projections include the new Orangetree service area beginning in FY 2012.
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. Years 2001 to 2007 have been revised using a 170 gpcd LOSS.
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 Capacity	Description	Source of Information
2005	8.0 MGD	Reverse osmosis treatment expansion to South County Regional Water Treatment Plant (SCRWTP)	Completed
2008	12.0 MGD	Reverse osmosis treatment expansion to SCRWTP	SCRWTP Wellfield Expansion PMP
2012	2.0 MGD	High Pressure RO expansion to North County Regional Water Treatment Plant (NCRWTP)	2008 Water Master Plan Update
2012	1.9 MGD	Existing 1.9 MGD Orangetree WTP continues to serve Orangetree Service Area. Additional water demand served by NCRWTP	Capacity based on County meeting with Orangetree Utilities on 5 July 07
2012 Total:	3.9 MGD	Sum of 2012 capacity improvements.	See above
2018	7.5 MGD	New Northeast Regional Water Treatment Plant (NERWTP)	Recommended based on June 11, 2008 CDES population projections
2018	-1.9 MGD	Existing 1.9 MGD Orangetree WTP off-line as NEWTP begins operation to serve Orangetree Service Area	Recommended based on June 11, 2008 CDES population projections
2018 Total:	5.6 MGD	Sum of 2018 capacity improvements.	See above



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

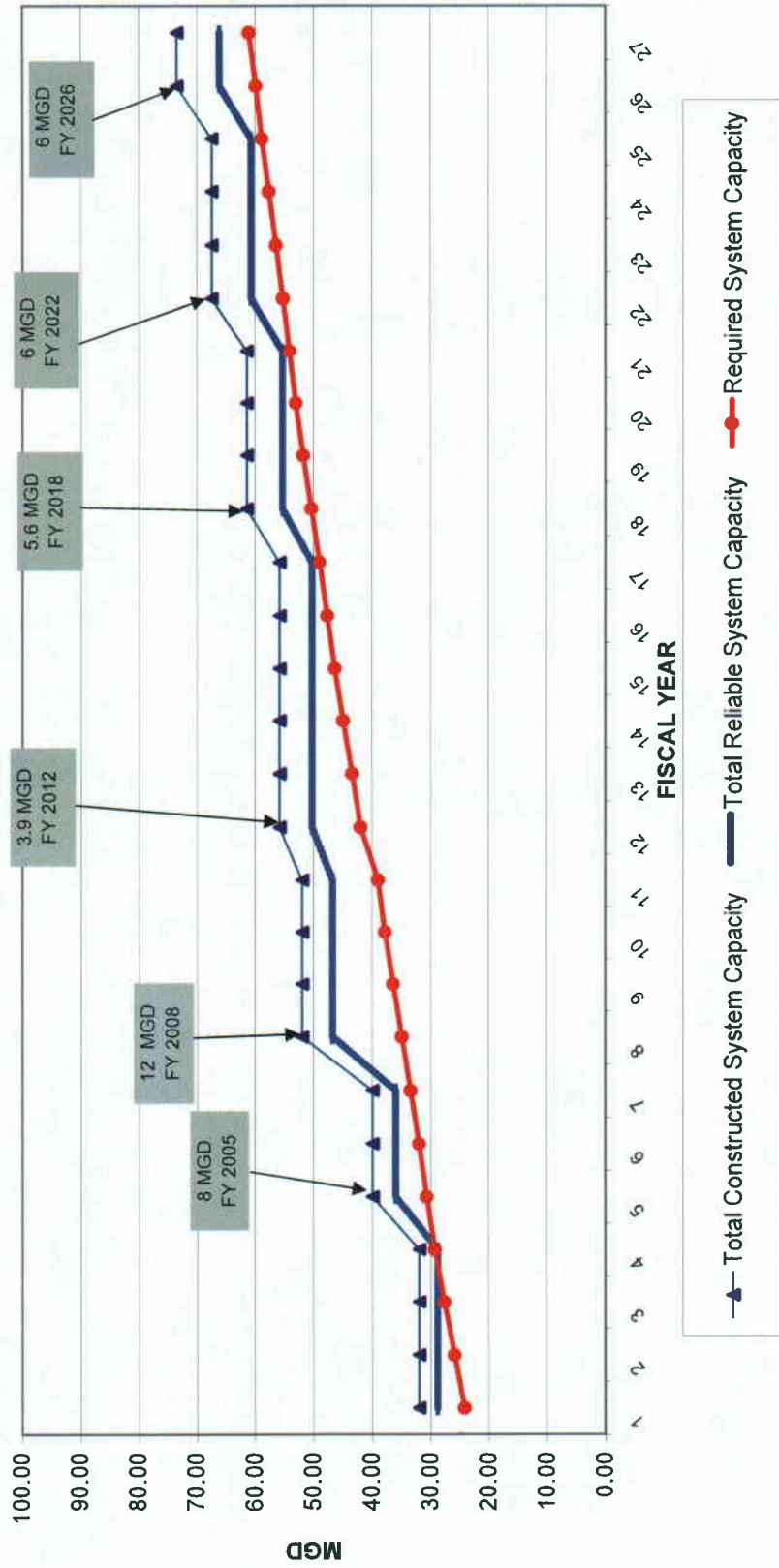
August 12, 2008

2022	6.0 MGD	New Southeast Regional Water Treatment Plant (SERWTP)	Recommended based on June 11, 2008 CDES population projections
2026	6.0 MGD	Expansion to NERWTP	Recommended based on June 11, 2008 CDES 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).
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).
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 1.5 MGD minimum and 12.0 MGD maximum through FY 2016, and 1.2 MGD minimum and 10.0 MGD maximum after FY 2016. 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  
**2008 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)**  
**POTABLE WATER SYSTEM**  
 Level of Service Standard: 170 gpcd

August 12, 2008



**POTABLE WATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
CHANGES FROM 2007 AUJR**

August 12, 2008

New Plant Constructed Capacity Schedule:

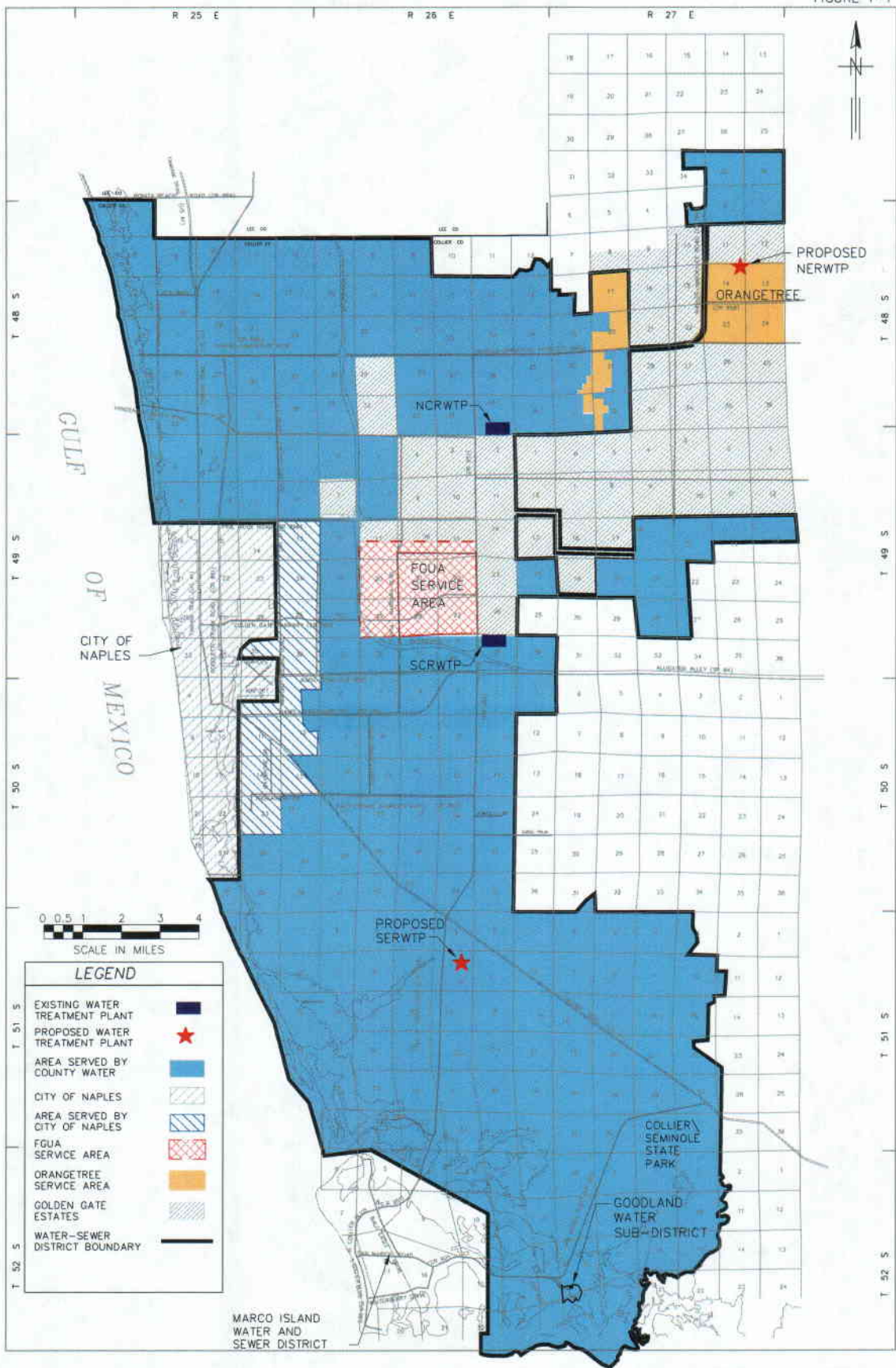
- A. SCRWTP: Changed 8.0 MGD expansion in FY 2007 and 4.0 MGD in FY 2008 to 12.0 MGD in FY 2008 to match new SCRWTP wellfield delivery schedule.
- B. NCRWTP: Changed 2.0 MGD High Pressure RO expansion from FY 2011 to FY 2012 to match the 2008 Water Master Plan.
- C. The following changes were made from the 2007 AUJR to match the June 11, 2008 CDES populations and resulting water demands:
  - NERWTP: Changed new 8.75 MGD plant in FY 2014 to new 7.5 MGD plant in FY 2018; changed 6.0 MGD expansion in FY 2023 to FY 2026.
  - SERWTP: Changed new 8.0 MGD in FY 2017 to new 6.0 MGD plant in FY 2022.

Level Of Service Standard (LOSS):

- A. LOSS changed from 185 gpcd in FY2007 to 170 gpcd in FY2008 to match the 2008 Water Master Plan.



FIGURE 1-1



EXISTING AND FUTURE  
WATER SERVICE AREAS

COLLIER COUNTY GOVERNMENT  
PUBLIC UTILITIES DIVISION  
2008 WATER AUIR

2008 AUIR SUMMARY FORM  
 POTABLE WATER SYSTEM

CAPITAL EXPENDITURES & FUNDING SOURCES (\$ MILLIONS)

	FY <u>2008-09</u>	FY <u>2009-10</u>	FY <u>2010-11</u>	FY <u>2011-12</u>	FY <u>2012-13</u>	FY 2009 - FY 2013 <u>Amount</u>	FY 2009 - FY 2013 <u>Percent</u>
<b><u>Water System Capital Expenditures</u></b>							
Expansion Related Projects	0.64	0.90	8.86	6.80	2.45	19.66	42.88%
R&R Projects	4.39	4.20	3.34	3.95	5.66	21.54	46.99%
Departmental Capital	0.79	0.90	0.96	0.99	1.01	4.65	10.13%
<b>Total Capital Expenditures</b>	<b>5.82</b>	<b>6.00</b>	<b>13.16</b>	<b>11.74</b>	<b>9.13</b>	<b>45.85</b>	<b>100.00%</b>
<b><u>Water System Funding Sources</u></b>							
Water Capital Account	4.39	4.20	3.34	3.95	5.66	21.54	46.99%
Water Impact Fees	0.62	0.77	8.56	6.78	2.39	19.11	41.68%
Series 2006 Bond Proceeds	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Annual Rate Revenue	0.79	0.90	0.96	0.99	1.01	4.65	10.13%
Operating Reserves	0.03	0.13	0.30	0.03	0.06	0.55	1.20%
<b>Total Funding Sources</b>	<b>5.82</b>	<b>6.00</b>	<b>13.16</b>	<b>11.74</b>	<b>9.13</b>	<b>45.85</b>	<b>100.00%</b>

**Source:**

Water and Wastewater Rate Study and Impact Fee Study approved by the BCC on June 24, 2008

# COUNTY SEWER TREATMENT AND COLLECTION SYSTEM

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- INTRODUCTION
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- CHART – NORTH COUNTY WATER RECLAMATION FACILITY LOSS: 120 GPCD
- WASTEWATER SYSTEM – LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA
- CHART – SOUTH COUNTY WATER RECLAMATION FACILITY LOSS: 100 GPCD
- WASTEWATER SYSTEM – LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT FOR PROPOSED NORTHEAST WATER RECLAMATION FACILITY (NEWRF) SERVICE AREA
- CHART – PROPOSED NORTHEAST WATER RECLAMATION FACILITY LOSS: 120 GPCD
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- 2008 AUIR SUMMARY FORM – WASTEWATER SYSTEM – CAPITAL EXPENDITURES & FUNDING SOURCES



**2008 AUIR**  
**COLLIER COUNTY WATER SEWER DISTRICT - WASTEWATER SYSTEM**

Introduction:

The Public Utilities Division's 2008 AUIR submittals are based on the population estimates provided to us by Comprehensive Planning on June 11, 2008. There are two notable changes from the 2007 Collier County Water Sewer District (CCWSD) Wastewater System AUIR:

1. The Level of Service Standard (LOSS) for the North County Water Reclamation Facility (NCWRF) decreased from 145 gallons per capita per day (gpcd) to 120 gpcd in accordance with the 2008 Wastewater Master Plan, approved by the BCC on June 24, 2008.
2. The decrease in population projections from Comprehensive Planning and the LOSS change have led to the existing plants being able to maintain reliability longer without plant expansions or new plant construction.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2008 CCWSD Wastewater System AUIR.

WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA

August 12, 2008

1	2	3	4	5	6	7	8	9
Fiscal Year	Peak Population	Required Capacity @ 120 gpcd	Required Capacity increase from previous year	Constructed Capacity On-line	New Plant Capacity	Total Available Constructed Capacity	Retained/ (Deficit) Constructed Capacity	Retained/ (Deficit) Constructed Capacity Target Values
		MGD	MGD	MGD	MGD	MGD	MGD	MGD
2001	79,834	9.58		12.30	6.50	18.80	9.22	1.0 (Min) - 5.0 (Max)
2002	87,226	10.47	0.89	18.80		18.80	8.33	1.0 (Min) - 5.0 (Max)
2003	94,318	11.32	0.85	18.80		18.80	7.48	1.0 (Min) - 5.0 (Max)
2004	100,503	12.06	0.74	18.80		18.80	6.74	1.0 (Min) - 5.0 (Max)
2005	105,193	12.62	0.56	18.80	5.30	24.10	11.48	1.0 (Min) - 5.0 (Max)
2006	108,791	13.05	0.43	24.10		24.10	11.05	1.0 (Min) - 5.0 (Max)
2007	112,364	13.48	0.43	24.10		24.10	10.62	1.0 (Min) - 5.0 (Max)
2008	115,915	13.91	0.43	24.10		24.10	10.19	1.0 (Min) - 5.0 (Max)
2009	119,472	14.34	0.43	24.10		24.10	9.76	1.0 (Min) - 5.0 (Max)
2010	122,681	14.72	0.39	24.10		24.10	9.38	1.0 (Min) - 5.0 (Max)
2011	131,843	15.82	1.10	24.10		24.10	8.28	1.0 (Min) - 5.0 (Max)
2012	136,810	16.42	0.60	24.10		24.10	7.68	1.0 (Min) - 5.0 (Max)
2013	141,370	16.96	0.55	24.10		24.10	7.14	1.0 (Min) - 5.0 (Max)
2014	146,088	17.53	0.57	24.10		24.10	6.57	1.0 (Min) - 5.0 (Max)
2015	150,471	18.06	0.53	24.10		24.10	6.04	1.0 (Min) - 5.0 (Max)
2016	154,498	18.54	0.48	24.10		24.10	5.56	1.0 (Min) - 5.0 (Max)
2017	158,641	19.04	0.50	24.10		24.10	5.06	1.0 (Min) - 5.0 (Max)
2018	148,724	17.85	(1.19)	24.10		24.10	6.25	1.0 (Min) - 5.0 (Max)
2019	151,887	18.23	0.38	24.10		24.10	5.87	1.0 (Min) - 5.0 (Max)
2020	154,833	18.58	0.35	24.10		24.10	5.52	1.0 (Min) - 5.0 (Max)
2021	157,548	18.91	0.33	24.10		24.10	5.19	1.0 (Min) - 5.0 (Max)
2022	160,447	19.25	0.35	24.10		24.10	4.85	1.0 (Min) - 5.0 (Max)
2023	163,591	19.63	0.38	24.10		24.10	4.47	1.0 (Min) - 5.0 (Max)
2024	166,860	20.02	0.39	24.10		24.10	4.08	1.0 (Min) - 5.0 (Max)
2025	169,971	20.40	0.37	24.10		24.10	3.70	1.0 (Min) - 5.0 (Max)
2026	172,917	20.75	0.35	24.10		24.10	3.35	1.0 (Min) - 5.0 (Max)
2027	175,915	21.11	0.36	24.10		24.10	2.99	1.0 (Min) - 5.0 (Max)

**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR NORTH COUNTY WATER RECLAMATION FACILITY (NCWRF) SERVICE AREA**

August 12, 2008

**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 the "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2027. NOTE: The populations shown between FY 2011 and 2017 reflect transfer of wastewater flow from the Northeast and Orange-tree Service Areas. This flow to the NCWRF is discontinued when the new NEWRF starts operation in 2018, thus resulting in a decrease of population (Column 2) and flow shown in FY 2018.
3. Required Capacity @ 120 gpcd is obtained by multiplying the Peak Population (Column 2) times 120 gallons per capita per day (gpcd). 120 gpcd is the established Level of Service Standard (LOSS) for the North Service Area as adopted in the 2008 Wastewater Master Plan Update approved by the Board of County Commissioners on June 24, 2008. Years 2001 to 2007 have been revised using a 120 gpcd LOSS.
4. Required Capacity increase from previous year is the increase between the Required Capacity @ 120 gpcd (Column 3) for the year listed and the previous year. (The decrease in FY 2018 is explained in Note 2 above.)
5. Constructed Capacity On-line is the plant capacity at the beginning of the fiscal year in Million Gallons per Day (MGD). All plant capacities are reliable plant capacities stated in Maximum Month Average Daily Flow (MMADF) per FDEP permit requirements.

6. New Plant Capacity schedule is as follows:

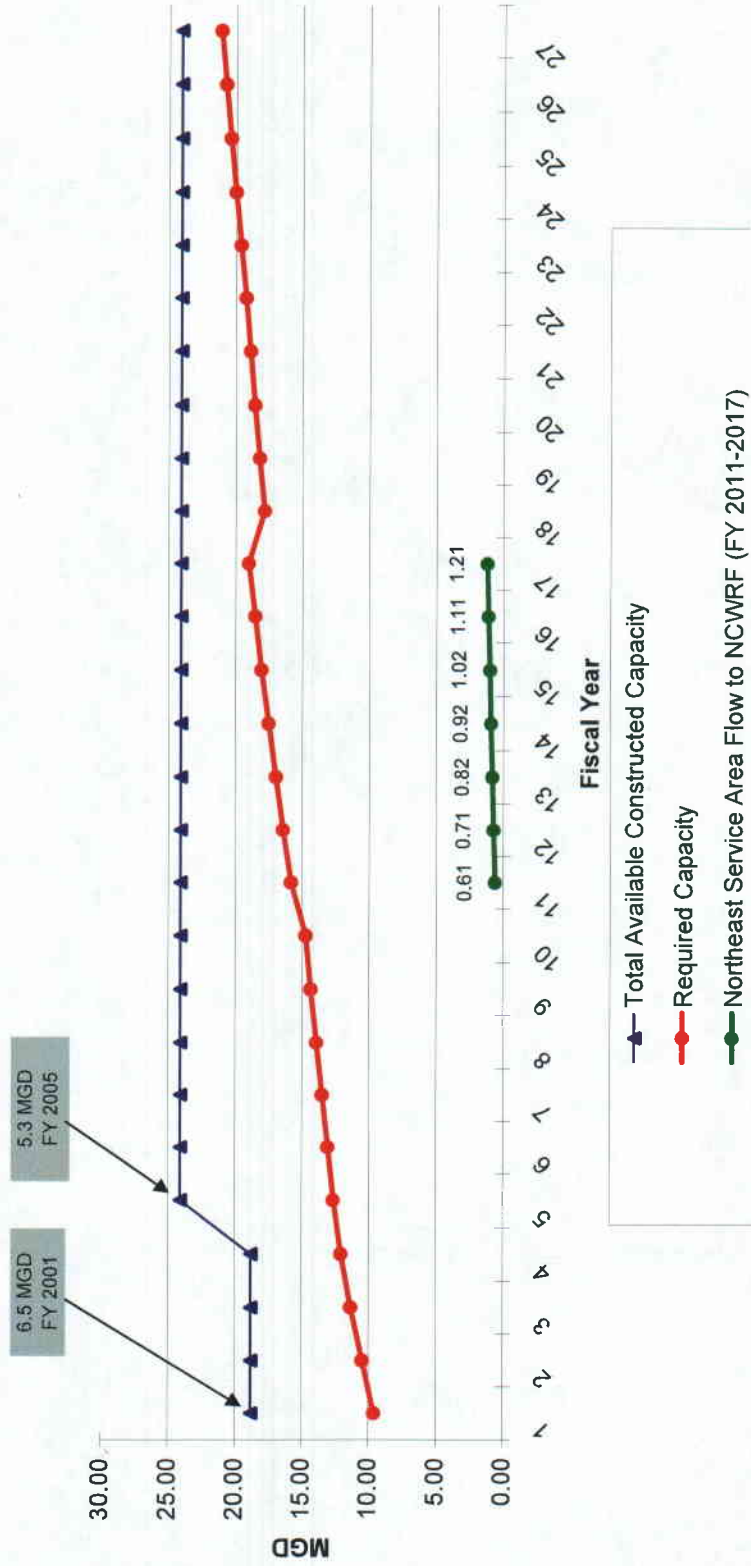
Fiscal Year	New Plant Capacity	Source of Information
2001	6.5 MGD	Completed
2005	-1.2 MGD	Completed (Pelican Bay WRF decommissioned)
2005	6.5 MGD	Completed (Pelican Bay WRF decommissioned)
2005 Total:	5.3 MGD	Sum of 2005 capacity improvements.

7. Total Available Constructed Capacity in MGD (Column 5 + Column 6).
8. Retained/(Deficit) Constructed Capacity is the difference between Total Available Constructed Capacity (Column 7) and Required Capacity (Column 3).
9. Retained/(Deficit) Constructed Capacity Target Values for planning purposes are 1.0 MGD minimum and 5.0 MGD maximum through FY 2027. The target minimum capacities represent the projected increase in the next year's wastewater flow (Column 4) and the target maximum capacities represent the projected increase in wastewater flow for the next eight years.



Collier County Government  
Public Utilities Division  
**2008 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)**  
**Wastewater- North County Water Reclamation Facility (NCWRF)**  
Level of Service Standard: 120 gpcd

August 12, 2008



Collier County Government  
Public Utilities Division  
2008 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)

WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA

August 12, 2008

1	2	3	4	5	6	7	8	9
Fiscal Year	Peak Population	Required Capacity @ 100 gpcd	Required Capacity increase from previous year	Constructed Capacity On line	New Plant Capacity	Total Available Constructed Capacity	Retained/ (Deficit) Constructed Capacity	Retained/ (Deficit) Constructed Capacity Target Value
		MGD	MGD	MGD	MGD	MGD	MGD	MGD
2001	86,667	8.67		9.20		9.20	0.53	0.60 (Min)
2002	90,059	9.01	0.34	9.20		9.20	0.19	0.60 (Min)
2003	93,729	9.37	0.37	9.20		9.20	(0.17)	0.60 (Min)
2004	97,428	9.74	0.37	9.20	6.80	16.00	6.26	0.60 (Min)
2005	100,914	10.09	0.35	16.00		16.00	5.91	0.60 (Min)
2006	104,784	10.48	0.39	16.00		16.00	5.52	0.60 (Min)
2007	109,167	10.92	0.44	16.00		16.00	5.08	0.60 (Min)
2008	113,349	11.33	0.42	16.00		16.00	4.67	0.60 (Min)
2009	117,607	11.76	0.43	16.00		16.00	4.24	0.60 (Min)
2010	121,468	12.15	0.39	16.00		16.00	3.85	0.60 (Min)
2011	124,983	12.50	0.35	16.00		16.00	3.50	0.60 (Min)
2012	128,526	12.85	0.35	16.00		16.00	3.15	0.60 (Min)
2013	132,069	13.21	0.35	16.00		16.00	2.79	0.60 (Min)
2014	135,617	13.56	0.35	16.00		16.00	2.44	0.60 (Min)
2015	141,594	14.16	0.60	16.00		16.00	1.84	0.60 (Min)
2016	145,142	14.51	0.35	16.00		16.00	1.49	0.60 (Min)
2017	148,781	14.88	0.36	16.00		16.00	1.12	0.60 (Min)
2018	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2019	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2020	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2021	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2022	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2023	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2024	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2025	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2026	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)
2027	148,781	14.88	0.00	16.00		16.00	1.12	0.60 (Min)

**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR SOUTH COUNTY WATER RECLAMATION FACILITY (SCWRF) SERVICE AREA**

August 12, 2008

**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 the "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2027.
3. Required Capacity @ 100 gpcd is obtained by multiplying the Peak Population (Column 2) times 100 gallons per capita per day (gpcd). 100 gpcd is the established Level of Service Standard (LOSS) for the South Service Area as adopted in the 2008 Wastewater Master Plan Update approved by the Board of County Commissioners on June 24, 2008.
4. Required Capacity increase from previous year is the increase between the Required Capacity @ 100 gpcd (Column 3) for the year listed and the previous year.
5. Constructed Capacity On-line is the plant capacity at the beginning of the fiscal year in Million Gallons per Day (MGD). All plant capacities are reliable plant capacities stated in Maximum Month Average Daily Flow (MMADF) per FDEP permit requirements.
6. New Plant Capacity schedule is as follows:

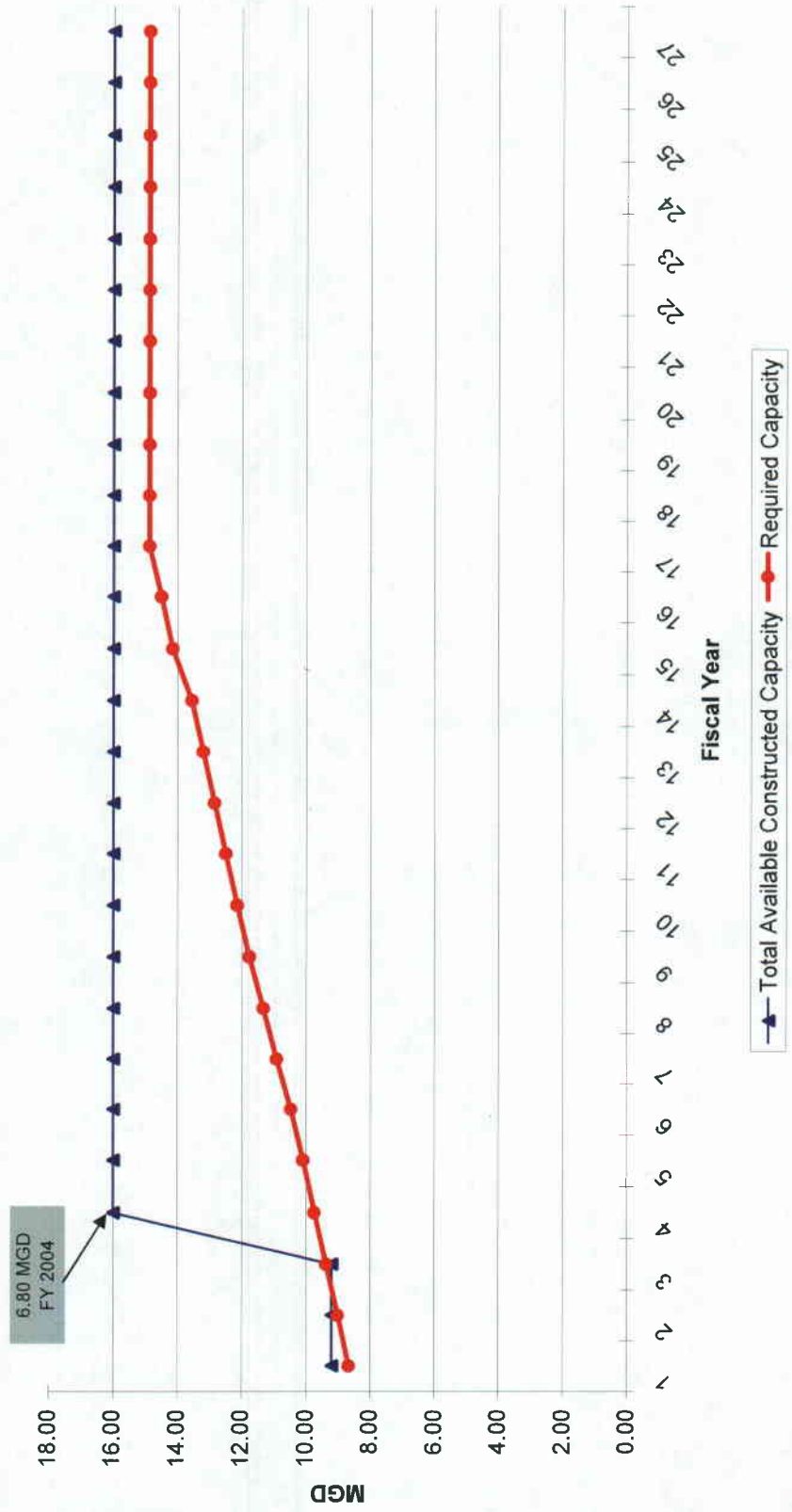
Fiscal Year	New Plant Capacity	Source of Information
2004	6.8 MGD	Completed

7. Total Available Constructed Capacity in MGD (Column 5 + Column 6).
8. Retained/(Deficit) Constructed Capacity is the difference between Total Available Constructed Capacity (Column 7) and Required Capacity (Column 3).
9. Retained/(Deficit) Constructed Capacity Target Value for planning purposes is 0.60 MGD minimum through 2017, when ultimate plant capacity is reached. The target minimum capacities represent the projected increase in the next year's wastewater flow (Column 4).



Collier County Government  
 Public Utilities Division  
 2008 ANNUAL UPDATE AND INVENTORY REPORT (AUIR)  
**Wastewater- South County Water Reclamation Facility (SCWRF)**  
 Level of Service Standard: 100 gpcd

August 12, 2008



**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR PROPOSED NORTHEAST WATER RECLAMATION FACILITY (NEWRF) SERVICE AREA**

August 12, 2008

1	2	3	4	5	6	7	8	9
Fiscal Year	Peak Population	Required Capacity @ 120 gpcd	Required Capacity increase from previous year	Constructed Capacity On-line	New Plant Capacity	Total Available Constructed Capacity	Retained/ (Deficit) Constructed Capacity	Retained/ (Deficit) Constructed Capacity Target Values
		MGD	MDG	MGD	MGD	MGD	MGD	MGD
2001	0	0.00		0.00		0.00	0.00	
2002	0	0.00	0.00	0.00		0.00	0.00	
2003	0	0.00	0.00	0.00		0.00	0.00	
2004	0	0.00	0.00	0.00		0.00	0.00	
2005	0	0.00	0.00	0.00		0.00	0.00	
2006	0	0.00	0.00	0.00		0.00	0.00	
2007	0	0.00	0.00	0.00		0.00	0.00	
2008	0	0.00	0.00	0.00		0.00	0.00	
2009	0	0.00	0.00	0.00		0.00	0.00	
2010	0	0.00	0.00	0.00		0.00	0.00	
2011	0	0.00	0.00	0.00		0.00	0.00	
2012	6,250	0.75	0.75	0.00	1.10	1.10	0.35	0.14 (Min) - 1.1 (Max)
2013	6,250	0.75	0.00	1.10		1.10	0.35	0.14 (Min) - 1.1 (Max)
2014	6,250	0.75	0.00	1.10		1.10	0.35	0.14 (Min) - 1.1 (Max)
2015	6,250	0.75	0.00	1.10		1.10	0.35	0.14 (Min) - 1.1 (Max)
2016	6,250	0.75	0.00	1.10		1.10	0.35	0.14 (Min) - 1.1 (Max)
2017	6,250	0.75	0.00	1.10		1.10	0.35	0.14 (Min) - 1.1 (Max)
2018	20,423	2.45	1.70	1.10	2.90	4.00	1.55	0.25 (Min) - 2.0 (Max)
2019	21,592	2.59	0.14	4.00		4.00	1.41	0.25 (Min) - 2.0 (Max)
2020	22,330	2.68	0.09	4.00		4.00	1.32	0.25 (Min) - 2.0 (Max)
2021	22,664	2.72	0.04	4.00		4.00	1.28	0.25 (Min) - 2.0 (Max)
2022	23,005	2.76	0.04	4.00		4.00	1.24	0.25 (Min) - 2.0 (Max)
2023	23,354	2.80	0.04	4.00		4.00	1.20	0.25 (Min) - 2.0 (Max)
2024	23,709	2.85	0.04	4.00		4.00	1.15	0.25 (Min) - 2.0 (Max)
2025	24,047	2.89	0.04	4.00		4.00	1.11	0.25 (Min) - 2.0 (Max)
2026	24,368	2.92	0.04	4.00		4.00	1.08	0.25 (Min) - 2.0 (Max)
2027	24,694	2.96	0.04	4.00		4.00	1.04	0.25 (Min) - 2.0 (Max)

**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR PROPOSED NORTHEAST WATER RECLAMATION FACILITY (NEWRF) SERVICE AREA**

August 12, 2008

**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 the "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2027. The NEWRF is placed in service in FY 2018, and prior to that year the wastewater generated in the Northeast Service Area is treated at other facilities.
3. Required Capacity @ 120 gpcd is obtained by multiplying the Peak Population (Column 2) times 120 gallons per capita per day (gpcd). 120 gpcd is the established Level of Service Standard (LOSS) for the Northeast Service Area as adopted in the 2008 Wastewater Master Plan Update approved by the Board of County Commissioners on June 24, 2008.
4. Required Capacity increase from previous year is the increase between the Required Capacity @ 120 gpcd (Column 3) for the year listed and the previous year.
5. Constructed Capacity On-line is the plant capacity at the beginning of the fiscal year in Million Gallons per Day (MGD). All plant capacities are reliable plant capacities stated in Maximum Month Average Daily Flow (MMADF) per FDEP permit requirements.

6. New Plant Capacity schedule is as follows:

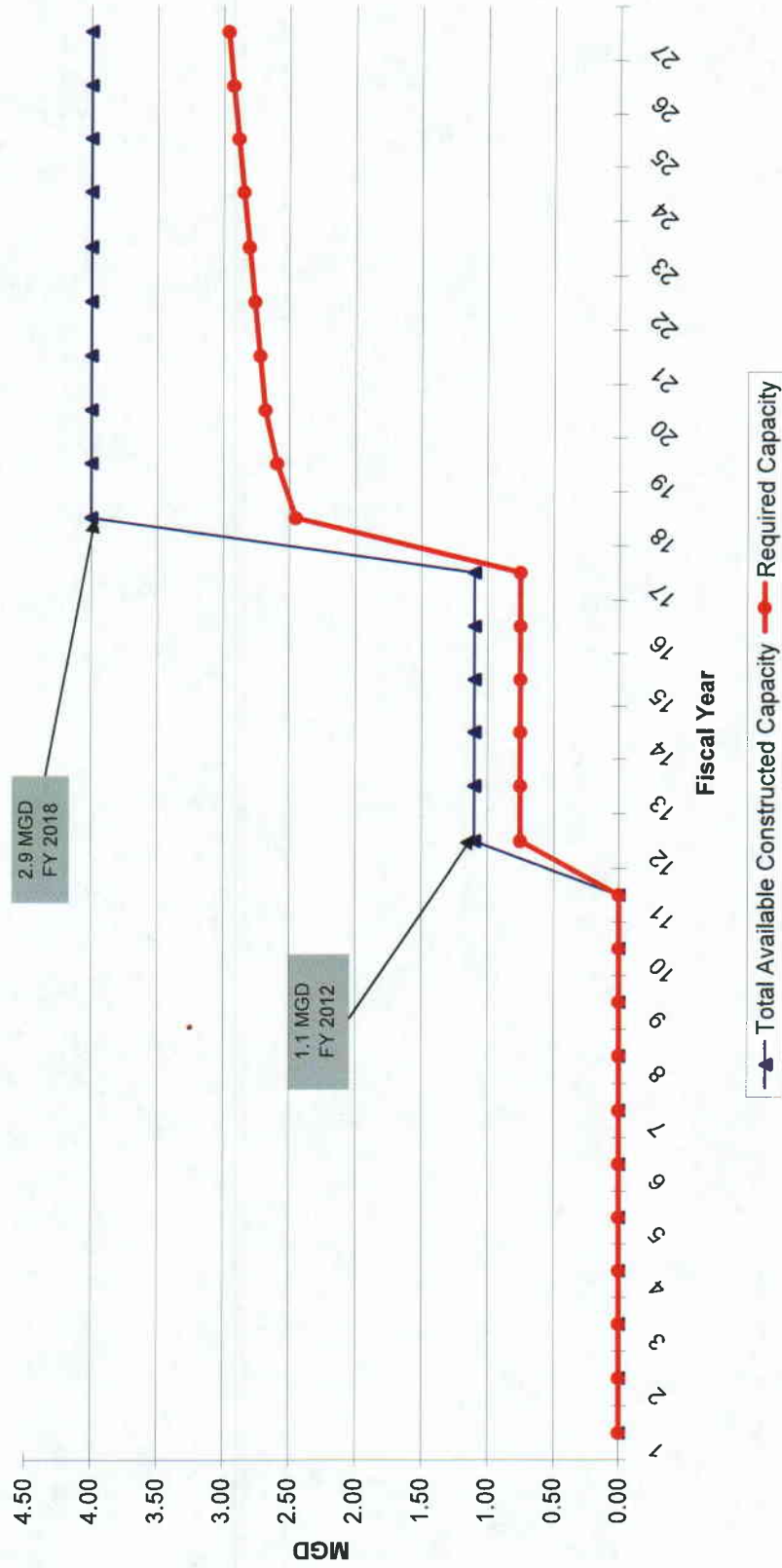
Fiscal Year	New Plant Capacity	Source of Information
2012	1.1 MGD	Capacity based on County meeting with Orangetree Utilities on 5 July 07
2018	-1.1 MGD	Recommended based on June 11, 2008 CDES population projections
2018	4.0 MGD	Recommended based on June 11, 2008 CDES population projections
2018 Total:	2.9 MGD	Sum of 2018 capacity improvements.

7. Total Available Constructed Capacity in MGD (Column 5 + Column 6).
8. Retained/(Deficit) Constructed Capacity is the difference between Total Available Constructed Capacity (Column 7) and Required Capacity (Column 3).
9. Retained/(Deficit) Constructed Capacity Target Values for planning purposes are 0.14 MGD minimum and 1.1 MGD maximum from FY 2012 through FY 2017, and 0.25 MGD minimum and 2.0 MGD maximum thereafter. The target minimum capacities represent the projected increase in the next year's wastewater flow (Column 4) and the target maximum capacities represent the projected increase in wastewater flow for the next eight years.



Collier County Government  
 Public Utilities Division  
**2008 ANNUAL UPDATE AND INVENTORY REPORT (AUJR)**  
**Wastewater- Proposed Northeast Water Reclamation Facility (NEWRF)**  
 Level of Service Standard: 120 gpcd

August 12, 2008



**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR PROPOSED SOUTHEAST WATER RECLAMATION FACILITY (SEWRF) SERVICE AREA**

August 12, 2008

1	2	3	4	5	6	7	8	9
Fiscal Year	Peak Population	Required Capacity @ 120 gpcd	Required Capacity increase from previous year	Constructed Capacity On-line	New Plant Capacity	Total Available Constructed Capacity	Retained/ (Deficit) Constructed Capacity	Retained/ (Deficit) Constructed Capacity Target Value
		MGD	MDG	MGD	MGD	MGD	MGD	MGD
2001	0	0.00		0.00		0.00	0.00	
2002	0	0.00	0.00	0.00		0.00	0.00	
2003	0	0.00	0.00	0.00		0.00	0.00	
2004	0	0.00	0.00	0.00		0.00	0.00	
2005	0	0.00	0.00	0.00		0.00	0.00	
2006	0	0.00	0.00	0.00		0.00	0.00	
2007	0	0.00	0.00	0.00		0.00	0.00	
2008	0	0.00	0.00	0.00		0.00	0.00	
2009	0	0.00	0.00	0.00		0.00	0.00	
2010	0	0.00	0.00	0.00		0.00	0.00	
2011	0	0.00	0.00	0.00		0.00	0.00	
2012	0	0.00	0.00	0.00		0.00	0.00	
2013	0	0.00	0.00	0.00		0.00	0.00	
2014	0	0.00	0.00	0.00		0.00	0.00	
2015	0	0.00	0.00	0.00		0.00	0.00	
2016	0	0.00	0.00	0.00		0.00	0.00	
2017	0	0.00	0.00	0.00		0.00	0.00	
2018	10,907	1.31	1.31	0.00	4.00	4.00	2.69	0.6 (Min) - 4.8 (Max)
2019	14,736	1.77	0.46	4.00		4.00	2.23	0.6 (Min) - 4.8 (Max)
2020	18,275	2.19	0.42	4.00		4.00	1.81	0.6 (Min) - 4.8 (Max)
2021	21,507	2.58	0.39	4.00		4.00	1.42	0.6 (Min) - 4.8 (Max)
2022	24,807	2.98	0.40	4.00		4.00	1.02	0.6 (Min) - 4.8 (Max)
2023	28,174	3.38	0.40	4.00		4.00	0.62	0.6 (Min) - 4.8 (Max)
2024	31,612	3.79	0.41	4.00	2.00	6.00	2.21	0.6 (Min) - 4.8 (Max)
2025	34,882	4.19	0.39	6.00		6.00	1.81	0.6 (Min) - 4.8 (Max)
2026	37,978	4.56	0.37	6.00		6.00	1.44	0.6 (Min) - 4.8 (Max)
2027	41,129	4.94	0.38	6.00		6.00	1.06	0.6 (Min) - 4.8 (Max)

**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
FOR PROPOSED SOUTHEAST WATER RECLAMATION FACILITY (SEWRF) SERVICE AREA**

August 12, 2008

**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 the "Collier County Water & Sewer Districts Population Estimates and Projections" dated June 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are based on using Bureau of Economic and Business Research (BEBR) Medium Range growth rate through 2027.
3. Required Capacity @ 120 gpcd is obtained by multiplying the Peak Population (Column 2) times 120 gallons per capita per day (gpcd). 120 gpcd is the established Level of Service Standard (LOSS) for the Southeast Service Area as adopted in the 2008 Wastewater Master Plan Update approved by the Board of County Commissioners on June 24, 2008.
4. Required Capacity increase from previous year is the increase between the Required Capacity @ 120 gpcd (Column 3) for the year listed and the previous year.
5. Constructed Capacity On-line is the plant capacity at the beginning of the fiscal year in Million Gallons per Day (MGD). All plant capacities are reliable plant capacities stated in Maximum Month Average Daily Flow (MMADF) per FDEP permit requirements.

6. New Plant Capacity schedule is as follows:

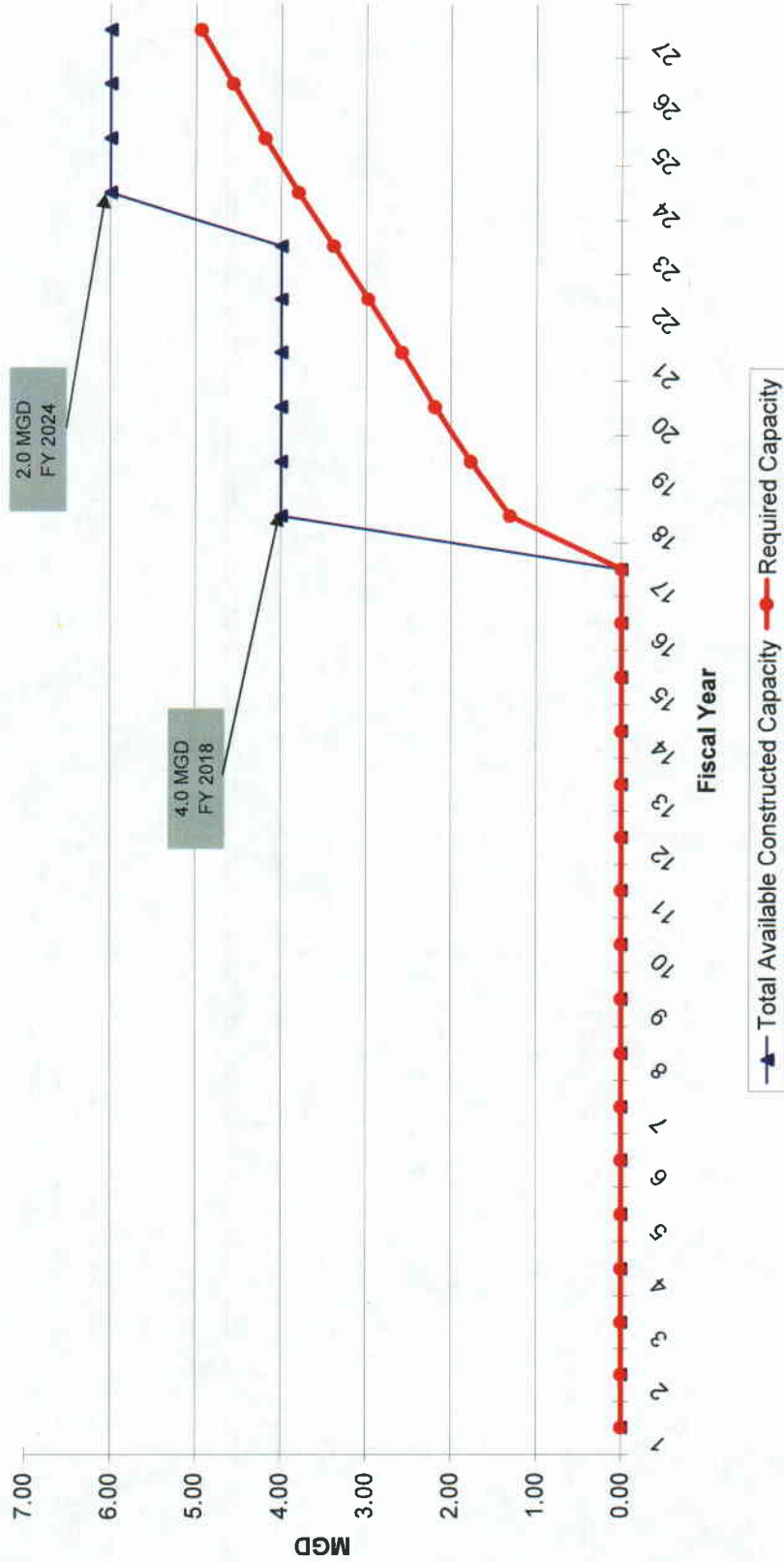
Fiscal Year	New Plant Capacity	Source of Information
2018	4.0 MGD	Recommended based on June 11, 2008 CDES population projections
2024	2.0 MGD	Recommended based on June 11, 2008 CDES population projections

7. Total Available Constructed Capacity in MGD (Column 5 + Column 6).
8. Retained/(Deficit) Constructed Capacity is the difference between Total Available Constructed Capacity (Column 7) and Required Capacity (Column 3).
9. Retained/(Deficit) Constructed Capacity Target Values for planning purposes are 0.60 MGD minimum and 4.8 MGD maximum through FY 2027. The target minimum capacities represent the projected increase in the next year's wastewater flow (Column 4) and the target maximum capacities represent the projected increase in wastewater flow for the next eight years.



Collier County Government  
 Public Utilities Division  
**2008 ANNUAL UPDATE AND INVENTORY REPORT (AUJR)**  
**Wastewater- Proposed Southeast Water Reclamation Facility (SEWRF)**  
 Level of Service Standard: 120 gpcd

August 12, 2008



**WASTEWATER SYSTEM - LEVEL OF SERVICE STANDARDS (LOSS) ASSESSMENT  
CHANGES FROM 2007 AUJR**

August 12, 2008

New Plant Constructed Capacity Schedule:

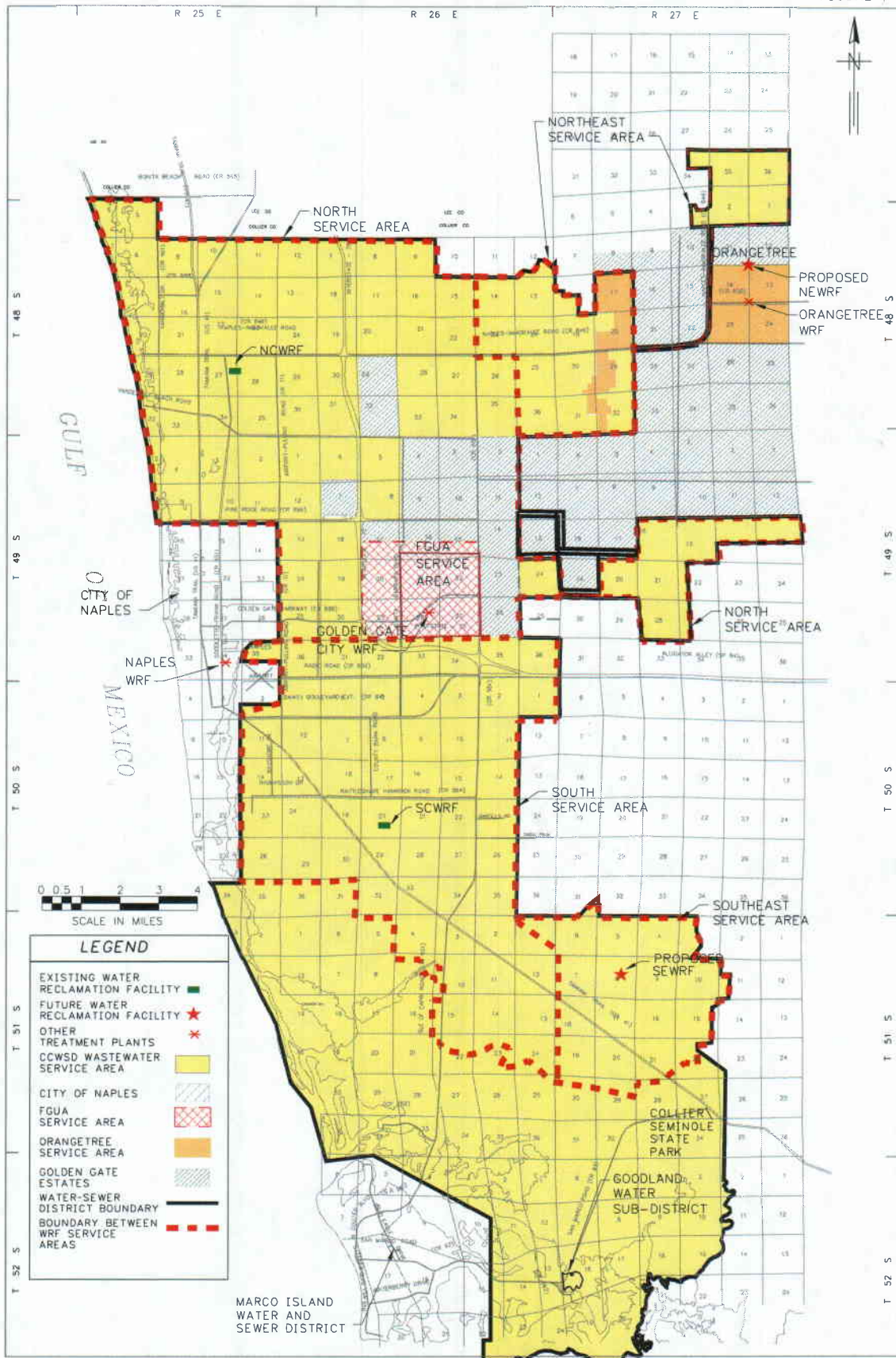
The following changes were made from the 2007 AUJR to match the June 11, 2008 CDES populations and resulting water demands:

- A. NCWRF: Deleted 6.5 MGD expansion in FY 2015.
- B. NEWRF: Changed 4.0 MGD plant in FY 2015 to FY 2018.
- C. SEWRF: Changed 4.0 MGD plant in FY 2017 to FY 2018. Changed 2.0 MGD expansion in FY 2022 to FY 2024. Deleted 2.0 MGD expansion in FY 2026.

Level Of Service Standard (LOSS):

- A. LOSS at NCWRF changed from 145 gpcd in FY 2007 to 120 gpcd in FY 2008 to match the 2008 Wastewater Master Plan.

FIGURE 1-1



EXISTING AND FUTURE  
WASTEWATER SERVICE AREAS

COLLIER COUNTY GOVERNMENT  
PUBLIC UTILITIES DIVISION  
2008 WASTEWATER AUIR



2008 AIUR SUMMARY FORM  
WASTEWATER SYSTEM

CAPITAL EXPENDITURES & FUNDING SOURCES (\$ MILLIONS)

	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2009 - FY 2013 Amount	FY 2009 - FY 2013 Percent
<b><u>Wastewater System Capital Expenditures</u></b>							
Expansion Related Projects	5.37	9.42	9.48	13.63	19.74	57.64	61.52%
R&R Projects	6.41	5.69	5.49	6.00	6.64	30.23	32.27%
Departmental Capital	1.02	0.96	0.73	1.61	1.50	5.82	6.21%
<b>Total Capital Expenditures</b>	<b>12.79</b>	<b>16.08</b>	<b>15.70</b>	<b>21.24</b>	<b>27.88</b>	<b>93.69</b>	<b>100.00%</b>
<b><u>Wastewater System Funding Sources</u></b>							
Wastewater Capital Account	6.41	5.69	5.49	6.00	6.64	30.23	32.27%
Wastewater Impact Fees	0.00	9.24	9.40	13.55	19.70	51.88	55.37%
Series 2006 Bond Proceeds	5.34	0.00	0.00	0.00	0.00	5.34	5.70%
Annual Rate Revenue	1.02	0.96	0.73	1.61	1.50	5.82	6.21%
Operating Reserves	0.03	0.19	0.08	0.08	0.04	0.42	0.45%
<b>Total Funding Sources</b>	<b>12.79</b>	<b>16.08</b>	<b>15.70</b>	<b>21.24</b>	<b>27.88</b>	<b>93.69</b>	<b>100.00%</b>


**Sources:**

Water and Wastewater Rate Study and Impact Fee Study approved by the BCC on June 24, 2008



# COUNTY SOLID WASTE

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  - CHART 1 - TWO YEARS OF LINED CELL CAPACITY
  - TABLE 2 - COLLIER COUNTY LANDFILL DISPOSAL CAPACITY LEVEL OF SERVICE STANDARD: TEN YEARS OF PERMITTED LANDFILL CAPACITY AT PREVIOUS THREE YEARS AVERAGE TONS PER CAPITA DISPOSAL RATE
  - CHART 2 - TEN YEARS OF PERMITTED LANDFILL CAPACITY
  - CHANGES FROM 2007 AUIR
  - 2008 AUIR SUMMARY FORM – SOLID WASTE – LANDFILL CAPACITY – CAPITAL EXPENDITURES & FUNDING SOURCES
- 

**2008 AUIR  
COLLIER COUNTY LANDFILL DISPOSAL CAPACITY**

Introduction:

The Public Utilities Division's 2008 AUIR submittals are based on the population estimates provided to us by Comprehensive Planning on June 11, 2008. There are four notable changes from the 2007 Collier County Landfill Disposal Capacity AUIR:

1. The 2008 AUIR projects that the Collier County Landfill will have zero capacity remaining in FY36, while the 2007 AUIR projected that the Collier County Landfill would have zero capacity remaining in FY33. This "gained" capacity reflects both the positive impacts of the past and current solid waste management initiatives that have increased recycling and decreased disposal as well as reductions in the population estimates used to calculate the remaining disposal (airspace) capacity.
2. The projected Tons Per Capita Disposal Rate in the 2008 Solid Waste AUIR for 2009 forward is 0.64, which is a decrease from the projected Tons Per Capita Disposal Rate in the 2007 Solid Waste AUIR of 0.70. This is again reflective of the recycling initiatives evident in the previous four (4) years.
3. The timing of new landfill cell construction has been updated to reflect Waste Management, Inc. of Florida's current cell development schedule, which affects when new cell capacity is recognized.
4. The Schedule of Capital Improvements, calling out the specific landfill expansions, is included in the notes section of the 2008 AUIR on pages SW-2 and SW-3.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2008 Collier County Landfill Disposal Capacity AUIR and continue to support the Integrated Solid Waste Management Strategy.



Collier County Government  
Public Utilities Division  
2008 Annual Update and Inventory Report (AUIR)

**Table 1: Collier County Landfill Disposal Capacity  
Level of Service Standard: Two Years of Lined Cell Capacity  
at Previous Three Years Average Tons Per Capita Disposal Rate**

August 12, 2008

1	2	3	4	5	6	7
Fiscal Year	Peak Population	Tons Per Capita Disposal Rate	Annual Tons Disposed	Lined Cell Capacity Balance (tons)	Next Two Years Lined Cell Capacity Requirement (tons)	Projected Lined Cell Capacity Surplus or Deficiency (tons)
2000	309,511	1.23	381,499	1,019,063	797,058	222,005
2001	325,159	1.32	430,511	588,552	654,956	(66,404)
2002	341,954	1.07	366,547	1,152,005	580,312	571,693
2003	359,191	0.80	288,409	1,480,898	566,680	914,218
2004	374,384	0.78	291,903	1,889,736	563,161	1,336,575
2005	386,668	0.71	274,777	1,430,068	533,273	896,795
2006	396,310	0.70	278,384	1,420,340	503,387	916,953
2007	404,560	0.63	254,889	1,597,250	519,767	1,077,483
2008	412,499	0.60	248,498	1,775,405	549,008	1,226,397
2009	420,593	0.64	271,269	1,762,451	563,255	1,199,196
2010	430,626	0.64	277,739	2,579,555	579,026	2,000,528
2011	442,683	0.64	285,516	2,294,039	595,239	1,698,800
2012	455,078	0.64	293,510	2,000,528	611,906	1,388,622
2013	467,820	0.64	301,729	1,698,800	628,259	1,070,541
2014	480,920	0.64	310,177	8,536,209	645,385	7,890,823
2015	493,175	0.64	318,082	8,218,127	660,208	7,557,919
2016	507,473	0.64	327,304	7,890,823	673,476	7,217,347
2017	516,156	0.64	332,904	7,557,919	688,989	6,868,930
2018	528,046	0.64	340,572	7,217,347	704,369	6,512,979
2019	540,209	0.64	348,417	6,868,930	719,111	6,149,820
2020	551,891	0.64	355,952	6,512,979	733,671	5,779,307
2021	563,066	0.64	363,159	6,149,820	748,527	5,401,293
2022	574,467	0.64	370,512	5,779,307	763,683	5,015,624
2023	586,099	0.64	378,014	5,401,293	778,611	4,622,682
2024	597,967	0.64	385,669	5,015,624	792,760	4,222,865
2025	609,244	0.64	392,942	4,622,682	806,630	3,816,052
2026	619,904	0.64	399,817	4,222,865	820,744	3,402,121
2027	630,750	0.64	406,813	3,816,052	835,105	2,980,947
2028	641,786	0.64	413,931	3,402,121	849,717	2,552,404
2029	653,016	0.64	421,174	2,980,947	864,585	2,116,362
2030	664,442	0.64	428,543	2,552,404	879,714	1,672,690
2031	676,069	0.64	436,042	2,116,362	895,107	1,221,255
2032	687,898	0.64	443,672	1,672,690	910,769	761,921
2033	699,935	0.64	451,435	1,221,255	926,705	294,549
2034	712,182	0.64	459,334	761,921	942,921	(181,000)
2035	724,644	0.64	467,371	294,549	n/a	n/a
2036	737,323	0.64	475,549	(181,000)	n/a	n/a

**Table 1: Collier County Landfill Disposal Capacity  
Level of Service Standard: Two Years of Lined Cell Capacity  
at Previous Three Years Average Tons Per Capita Disposal Rate**

August 12, 2008

**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 Peak Season Population Estimates and Projections" dated June 11, 2008, prepared by Collier County Comprehensive Planning Department. Populations are derived from data obtained from: 2000 Census; Bureau of Economic and Business Research (BEBR) population bulletins; Collier County Comprehensive Planning staff; and, Planning staff from Naples and Marco Island. FY 2030 - FY 2036 projected based on average percentage increase for FY 2027 - FY 2029 (1.75%).
3. Tons Per Capita Disposal Rate for FY 2000 - FY 2008 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2009 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2006, FY 2007, and FY 2008.
4. Annual Tons Disposed for FY 2000 - FY 2007 are actual tonnage amounts buried at the Collier County Landfill. FY 2008 reflects actual tons disposed between October 2007 and July 2008 and extrapolated for the entire Fiscal Year (sum of October 2007 through July 2008 tons disposed / 10) \* 12). FY 2009 forward are derived from Peak Population (column 2) multiplied by the Tons Per Capita Disposal Rate (column 3).
5. Lined Cell Capacity Balance (tons) is the previous years Lined Cell Capacity Balance (column 5) minus Annual Tons Disposed (column 4) at the Collier County Landfill. See below for explanations of the bolded values in the Lined Cell Capacity Balance (column 5).

Fiscal Year	New Capacity (tons)	Description	Source of Information
2002	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement
2003	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement
2004	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement
2005	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement
2006	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement

**Table 1: Collier County Landfill Disposal Capacity  
 Level of Service Standard: Two Years of Lined Cell Capacity  
 at Previous Three Years Average Tons Per Capita Disposal Rate**

August 12, 2008

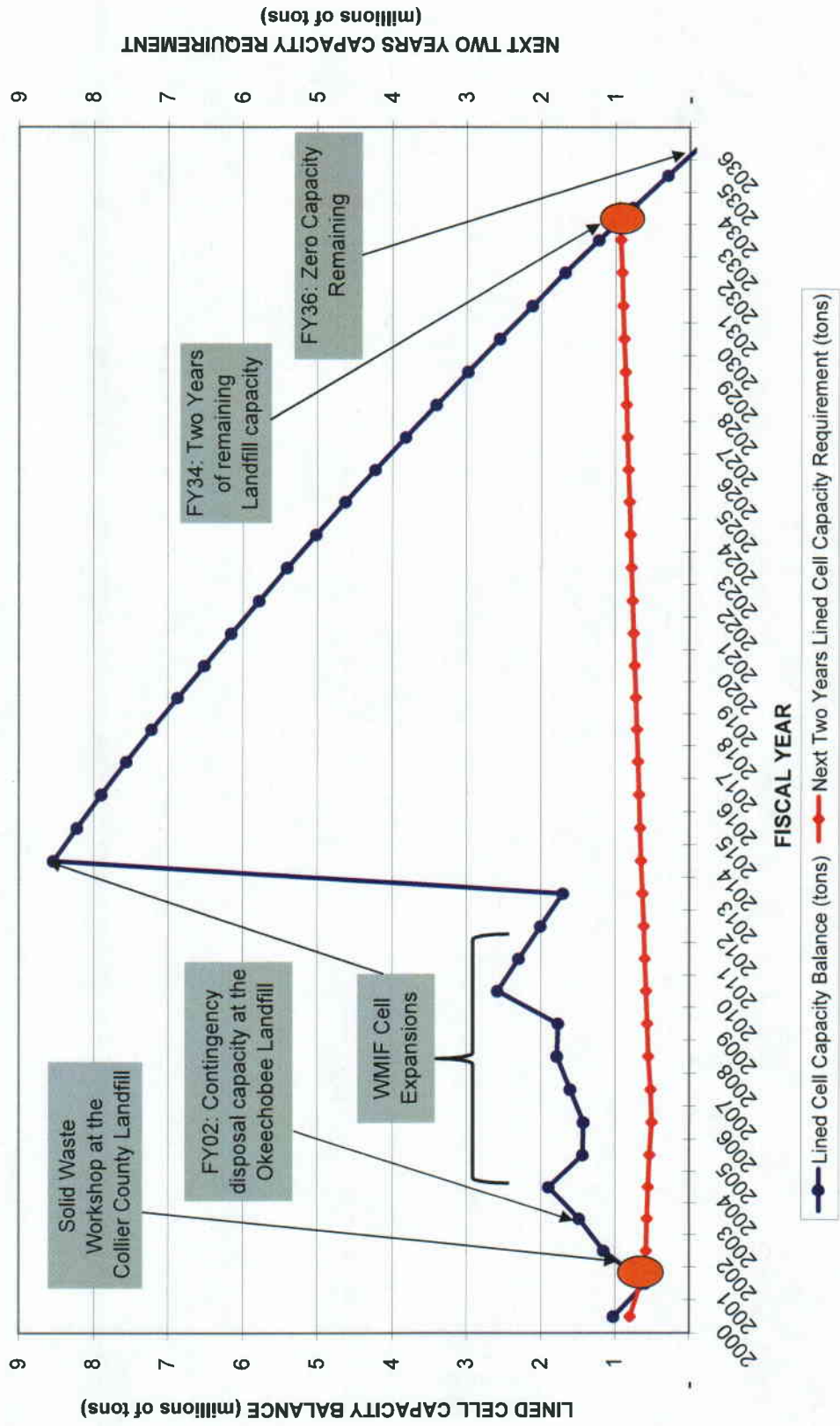
Year	930,000	Contracted disposal capacity at Okeechobee	June 12, 2001 Disposal Capacity Agreement
2008	426,653	Lined Cell Expansion	Waste Management, Inc. of Florida (WMIF) 5-year Cell Development Schedule dated 12/17/07. (This takes into account the Cells 1 & 2 Reclamation)
2009	258,315	Lined Cell Expansion	WMIF 5-year Cell Development Schedule dated 12/17/07.
2010	1,094,843	Lined Cell Expansion	WMIF 5-year Cell Development Schedule dated 12/17/07.
2014	7,147,586	Total remaining permitted capacity of landfill added. Lined cells will be constructed in future but have not been scheduled by WMIF.	WMIF Annual Estimate of Remaining Life and Capacity Letter, dated 01-28-08, less 5-year Completed Cell Development Expansions.

6. Next Two Years Lined Cell Capacity Requirement (tons) is the sum of the next two years of Annual Tons Disposed (column 4) at the Collier County Landfill.

7. Projected Lined Cell Capacity Surplus or Deficiency (tons) is the Lined Cell Capacity Balance (column 5) minus the Next Two Years Lined Cell Capacity Requirement (column 6).



**CHART 1: TWO YEARS OF LINED CELL CAPACITY**  
 Level of Service Standard = Two Years of Lined Cell Capacity at Previous Three Years Average Tons Per Capita Disposal Rate



**Table 2: Collier County Landfill Disposal Capacity  
Level of Service Standard: Ten Years of Permitted Landfill Capacity  
at Previous Three Years Average Tons Per Capita Disposal Rate**

August 12, 2008

1	2	3	4	5	6	7
Fiscal Year	Peak Population	Tons Per Capita Disposal Rate	Annual Tons Disposed	Total Landfill Capacity Balance (tons)	Next Ten Years Landfill Capacity Requirement (tons)	Ten Year Permitted Landfill Capacity Surplus or Deficiency (tons)
2000	309,511	1.23	381,499	4,537,914	2,982,926	1,554,988
2001	325,159	1.32	430,511	4,107,403	2,837,931	1,269,472
2002	341,954	1.07	366,547	<b>4,670,856</b>	2,764,894	1,905,962
2003	359,191	0.80	288,409	<b>6,750,359</b>	2,778,214	3,972,145
2004	374,384	0.78	291,903	<b>10,060,976</b>	2,796,488	7,264,488
2005	386,668	0.71	274,777	<b>10,625,124</b>	2,839,793	7,785,331
2006	396,310	0.70	278,384	<b>10,850,278</b>	2,886,713	7,961,565
2007	404,560	0.63	254,889	<b>10,524,647</b>	2,966,728	7,557,919
2008	412,499	0.60	248,498	10,276,149	3,058,802	7,217,347
2009	420,593	0.64	271,269	10,004,880	3,135,950	6,868,930
2010	430,626	0.64	277,739	9,727,141	3,214,162	6,512,979
2011	442,683	0.64	285,516	9,441,625	3,291,805	6,149,820
2012	455,078	0.64	293,510	9,148,115	3,368,807	5,779,307
2013	467,820	0.64	301,729	8,846,386	3,445,093	5,401,293
2014	480,920	0.64	310,177	8,536,209	3,520,584	5,015,624
2015	493,175	0.64	318,082	8,218,127	3,595,445	4,622,682
2016	507,473	0.64	327,304	7,890,823	3,667,958	4,222,865
2017	516,156	0.64	332,904	7,557,919	3,741,867	3,816,052
2018	528,046	0.64	340,572	7,217,347	3,815,226	3,402,121
2019	540,209	0.64	348,417	6,868,930	3,887,983	2,980,947
2020	551,891	0.64	355,952	6,512,979	3,960,575	2,552,404
2021	563,066	0.64	363,159	6,149,820	4,033,458	2,116,362
2022	574,467	0.64	370,512	5,779,307	4,106,618	1,672,690
2023	586,099	0.64	378,014	5,401,293	4,180,038	1,221,255
2024	597,967	0.64	385,669	5,015,624	4,253,704	761,921
2025	609,244	0.64	392,942	4,622,682	4,328,133	294,549
2026	619,904	0.64	399,817	4,222,865	4,403,865	(181,000)
2027	630,750	0.64	406,813	3,816,052	n/a	n/a
2028	641,786	0.64	413,931	3,402,121	n/a	n/a
2029	653,016	0.64	421,174	2,980,947	n/a	n/a
2030	664,442	0.64	428,543	2,552,404	n/a	n/a
2031	676,069	0.64	436,042	2,116,362	n/a	n/a
2032	687,898	0.64	443,672	1,672,690	n/a	n/a
2033	699,935	0.64	451,435	1,221,255	n/a	n/a
2034	712,182	0.64	459,334	761,921	n/a	n/a
2035	724,644	0.64	467,371	294,549	n/a	n/a
2036	737,323	0.64	475,549	(181,000)	n/a	n/a

**Table 2: Collier County Landfill Disposal Capacity  
Level of Service Standard: Ten Years of Lined Cell Capacity  
at Previous Three Years Average Tons Per Capita Disposal Rate**

8/12/2008

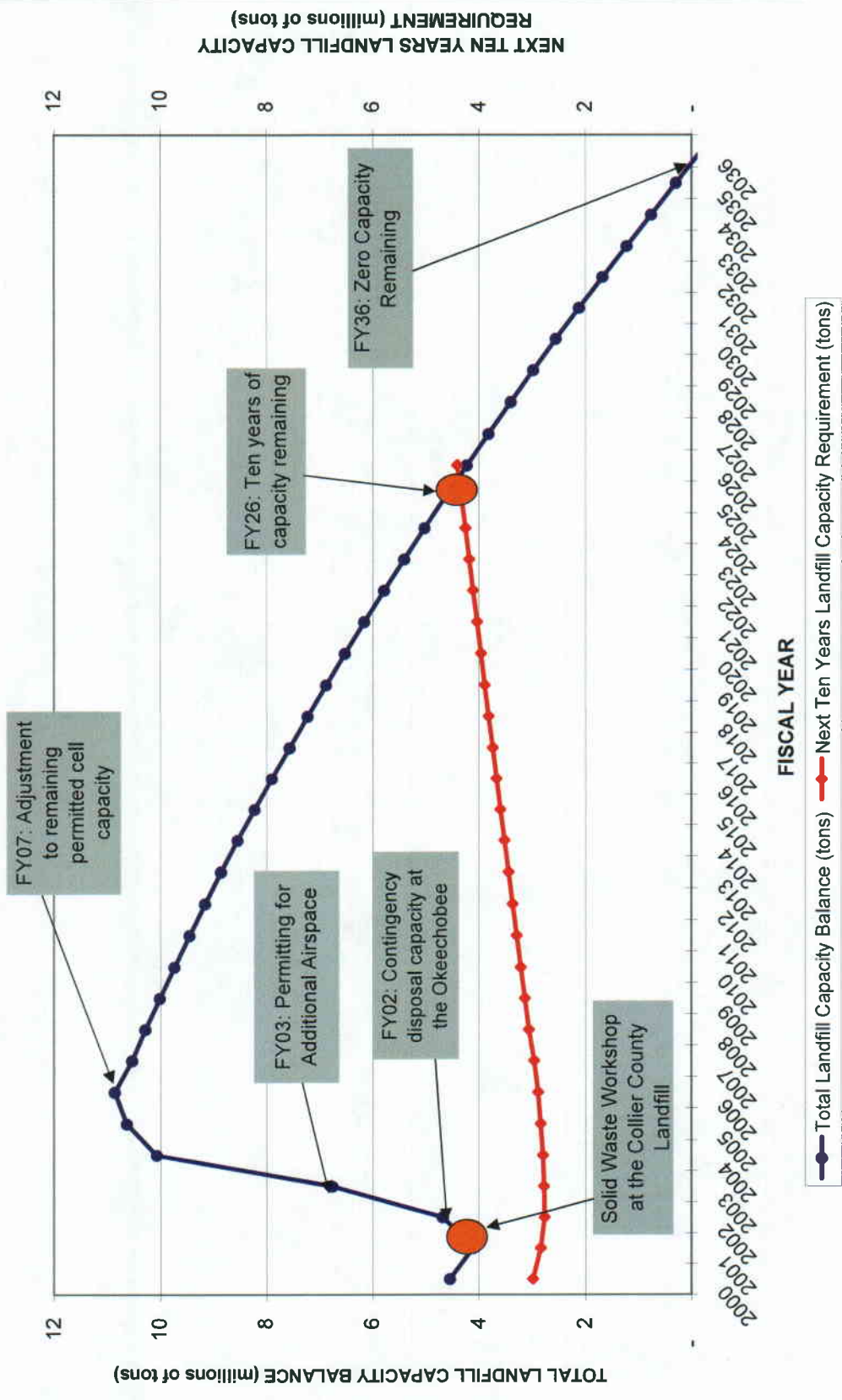
August 12, 2008

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3. Tons Per Capita Disposal Rate for FY 2000 - FY 2008 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2009 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2006, FY 2007, and FY 2008.
4. Annual Tons Disposed for FY 2000 - FY 2008 are actual tonnage amounts buried at the Collier County Landfill. FY 2008 reflects actual tons disposed between October 2007 and July 2008 and extrapolated for the entire Fiscal Year ((sum of October 2007 through July 2008 tons disposed / 10) \* 12). FY 2009 forward are derived from Peak Population (column 2) multiplied by the Tons Per Capita Disposal Rate (column 3).
5. Total Landfill Capacity Balance (tons) is the previous years Total Landfill Capacity Balance (column 5) minus Annual Tons Disposed (column 4) at the Collier County Landfill. The bolded values in the Total Landfill Capacity Balance (column 5) are from each years Waste Management, Inc. of Florida (WMIF) Annual Estimate of Remaining Life and Capacity Letter plus 930,000 tons of contracted disposal capacity at Okeechobee.
6. Next Ten Years Landfill Capacity Requirement (tons) is the sum of the next ten years of Annual Tons Disposed (column 4) at the Collier County Landfill.
7. Ten Year Permitted Landfill Capacity Surplus or Deficiency (tons) is the Total Landfill Capacity Balance (column 5) minus the Next Ten Years Landfill Capacity Requirement (column 6).



**CHART 2: TEN YEARS OF PERMITTED LANDFILL CAPACITY**  
 Level of Service Standard = Ten Years of Permitted Landfill Capacity at Previous Three Years Average Tons Per Capita Disposal Rate



Collier County Government  
Public Utilities Division  
2008 Annual Update and Inventory Report (AUJR)

**CHANGES FROM 2007 AUJR**

August 12, 2008

2007 AUJR Column Number and Category	2007 AUJR	2008 AUJR	Reason for Change
<b>BOTTOM LINE:</b> Zero Disposal (airspace) Capacity	<b>FY33</b>	<b>FY36</b>	Changes to Collier County's Peak Population Projections and incorporating the actual Annual Tons Disposed for FY08 decreased the average Tons Per Capita Disposal Rate, resulting in an increase to remaining Landfill capacity.
(1) Fiscal Year	October 1 thru Sept. 30. FY08: 430,362	October 1 thru Sept. 30. FY08: 412,499	No change.
(2) Peak Population	FY08: 430,362	FY09: 0.64 tons/capita/yr	The Collier County Peak Population Projections changed from last year.
(3) Tons Per Capita Disposal Rate	FY08: 0.70 tons/capita/yr	FY08: 248,498 tons	The change in Peak Population Projections and increased recycling lowered the three previous years' average Tons Per capital Disposal Rate.
(4) Annual Tons Disposed	FY08: 294,715 tons	FY08 and forward	Each year the Annual Tons Disposed for that year is the actual amount for that year. Future years Annual Tons Disposed are based on the Tons Per Capita Disposal Rate.
(5) Lined Cell Capacity Balance, Table 1	FY07 and forward	FY08 and forward	The 2008 AUJR was updated to reflect the actual remaining disposal (airspace) capacity data available from Waste Management Inc., of Florida (WMIF), which includes their updated cell development schedule for the next five years and the increased value includes the 930,000 tons of contingency disposal capacity at Okeechobee Landfill.
(5) Total Landfill Capacity Balance, Table 2	FY07 and forward	FY08 and forward	The 2008 AUJR was updated to reflect the actual remaining disposal (airspace) capacity data available from Waste Management Inc., of Florida (WMIF), which includes their updated Annual Estimate of Remaining Life and Capacity letter and the increased value includes the 930,000 tons of contingency disposal capacity at Okeechobee Landfill.

2008 AJIR SUMMARY FORM  
 SOLID WASTE - LANDFILL CAPACITY  
 CAPITAL EXPENDITURES & FUNDING SOURCES (\$ MILLIONS)

	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2009 - FY 2013 Amount	FY 2009 - FY 2013 Percent
<b>Solid Waste Projects</b>							
<b>Collier County Landfill Cell Construction</b>							
Cells A3 - Phases 1 & 2	1.60	0.00	0.00	0.00	0.00	1.60	39.80%
Cell A4	0.00	1.56	0.85	0.00	0.00	2.41	60.20%
<b>Total Capital Expenditures</b>	1.60	1.56	0.85	0.00	0.00	4.01	100.00%
<b>Revenue Source</b>							
Landfill Tipping Fees as part of the Landfill Operating Agreement	1.60	1.56	0.85	0.00	0.00	4.01	100.00%
<b>Total Funding Sources</b>	1.60	1.56	0.85	0.00	0.00	4.01	100.00%

**Source:**  
 Collier County landfill expansion costs are paid for by Waste Management Inc. of Florida (WMIF) through Collier County landfill tipping fees. These tipping fees are designed to cover landfill operating and administration costs as well as required construction costs associated with new cell construction as outlined in the Landfill Operating Agreement. Landfill Cell Construction is paid for by WMIF over the life of the Collier County Landfill. Construction cost figures are from WMIF as of December 17, 2007.