

# COUNTY SOLID WASTE

## CONTENTS

- INTRODUCTION
- TABLE 1 - 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 1 - TEN YEARS OF PERMITTED LANDFILL CAPACITY
- TABLE 2 - COLLIER COUNTY LANDFILL DISPOSAL CAPACITY LEVEL OF SERVICE STANDARD: TWO YEARS OF LINED CELL CAPACITY AT PREVIOUS THREE YEARS AVERAGE TONS PER CAPITAL DISPOSAL RATE
- CHART 2 - TWO YEARS OF LINED CELL CAPACITY
- CHANGES FROM 2010 AUIR
- CIE AMENDMENT SUBMITTAL “EXHIBIT A” & “EXHIBIT H”

Collier County Government  
Public Utilities Division  
2011 Annual Update and Inventory Report (AUIR)

**COLLIER COUNTY LANDFILL DISPOSAL CAPACITY**

Introduction:

The Public Utilities Division's 2011 AUIR submittals are based on "Collier County Peak Season Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are derived from data obtained from: 2010 Census; Bureau of Economic and Business Research (BEBR) population bulletins; Collier County Comprehensive Planning staff; and, Planning staff from Naples and Marco Island. FY 2035 - FY 2042 projected population based on average percentage increase for FY 2032 - FY 2034 (1.27%). There are two notable changes from the 2010 Collier County Landfill Disposal Capacity AUIR:

1. The 2011 Solid Waste AUIR projects that the Collier County Landfill will have zero capacity remaining in FY 2042, while the 2010 Solid Waste AUIR projected that the Collier County Landfill would have zero capacity remaining in FY 2039. The "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 2011 Solid Waste AUIR for 2012 forward is 0.53, which is a decrease from the projected Tons Per Capita Disposal Rate in the 2010 Solid Waste AUIR of 0.55. This is again reflective of the recycling initiatives evident in the previous ten (10) years.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2011 Collier County Landfill Disposal Capacity AUIR and continue to support the Integrated Solid Waste Management Strategy.

Collier County Government  
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2011 Annual Update and Inventory Report (AUIR)

**Table 1: 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 04, 2011

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	2,851,851	1,686,063
2001	325,159	1.32	430,511	4,107,403	2,623,814	1,483,589
2002	341,954	1.07	366,547	3,740,856	2,470,370	1,270,486
2003	359,191	0.80	288,409	5,820,359	2,398,737	3,421,622
2004	374,384	0.78	291,903	9,130,976	2,327,346	6,803,630
2005	386,668	0.71	274,777	9,695,124	2,277,057	7,418,067
2006	396,310	0.70	278,384	9,920,278	2,227,384	7,692,894
2007	400,027	0.64	254,889	9,594,647	2,205,508	7,389,139
2008	399,532	0.61	241,816	9,282,412	2,201,089	7,081,324
2009	399,979	0.54	215,338	9,067,074	2,227,612	6,839,462
2010	389,149	0.54	209,277	<b>8,589,725</b>	2,264,513	6,325,212
<b>2011</b>	<b>395,856</b>	<b>0.51</b>	<b>202,474</b>	8,387,251	2,312,378	6,074,873
2012	402,679	<b>0.53</b>	213,103	8,174,148	2,353,845	5,820,303
2013	409,620	0.53	216,776	7,957,372	2,395,941	5,561,431
2014	416,680	0.53	220,512	7,736,860	2,438,676	5,298,184
2015	424,193	0.53	224,488	7,512,372	2,481,596	5,030,776
2016	432,172	0.53	228,711	7,283,661	2,524,230	4,759,431
2017	440,302	0.53	233,013	7,050,648	2,566,559	4,484,089
2018	448,584	0.53	237,396	6,813,252	2,608,560	4,204,692
2019	457,022	0.53	241,862	6,571,390	2,650,210	3,921,180
2020	465,178	0.53	246,178	6,325,212	2,691,430	3,633,782
2021	473,040	0.53	250,339	6,074,873	2,732,141	3,342,733
2022	481,035	0.53	254,570	5,820,303	2,772,318	3,047,986
2023	489,165	0.53	258,872	5,561,431	2,811,937	2,749,494
2024	497,432	0.53	263,247	5,298,184	2,850,973	2,447,211
2025	505,294	0.53	267,408	5,030,776	2,889,689	2,141,087
2026	512,735	0.53	271,346	4,759,431	2,928,356	1,831,075
2027	520,286	0.53	275,342	4,484,089	2,966,965	1,517,124
2028	527,948	0.53	279,397	4,204,692	3,005,507	1,199,184
2029	535,724	0.53	283,512	3,921,180	3,043,974	877,206
2030	543,068	0.53	287,398	3,633,782	3,082,645	551,137
2031	549,967	0.53	291,049	3,342,733	3,121,807	220,926
2032	556,954	0.53	294,747	3,047,986	3,161,466	(113,481)
2033	564,029	0.53	298,491	2,749,494	N/A	N/A
2034	571,195	0.53	302,283	2,447,211	N/A	N/A
2035	578,451	0.53	306,124	2,141,087	N/A	N/A
2036	585,800	0.53	310,013	1,831,075	N/A	N/A
2037	593,242	0.53	313,951	1,517,124	N/A	N/A
2038	600,778	0.53	317,939	1,199,184	N/A	N/A
2039	608,411	0.53	321,979	877,206	N/A	N/A
2040	616,140	0.53	326,069	551,137	N/A	N/A
2041	623,967	0.53	330,211	220,926	N/A	N/A
2042	631,894	0.53	334,406	(113,481)	N/A	N/A

Collier County Government  
Public Utilities Division  
2011 Annual Update and Inventory Report (AUIR)

**Table 1: 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**

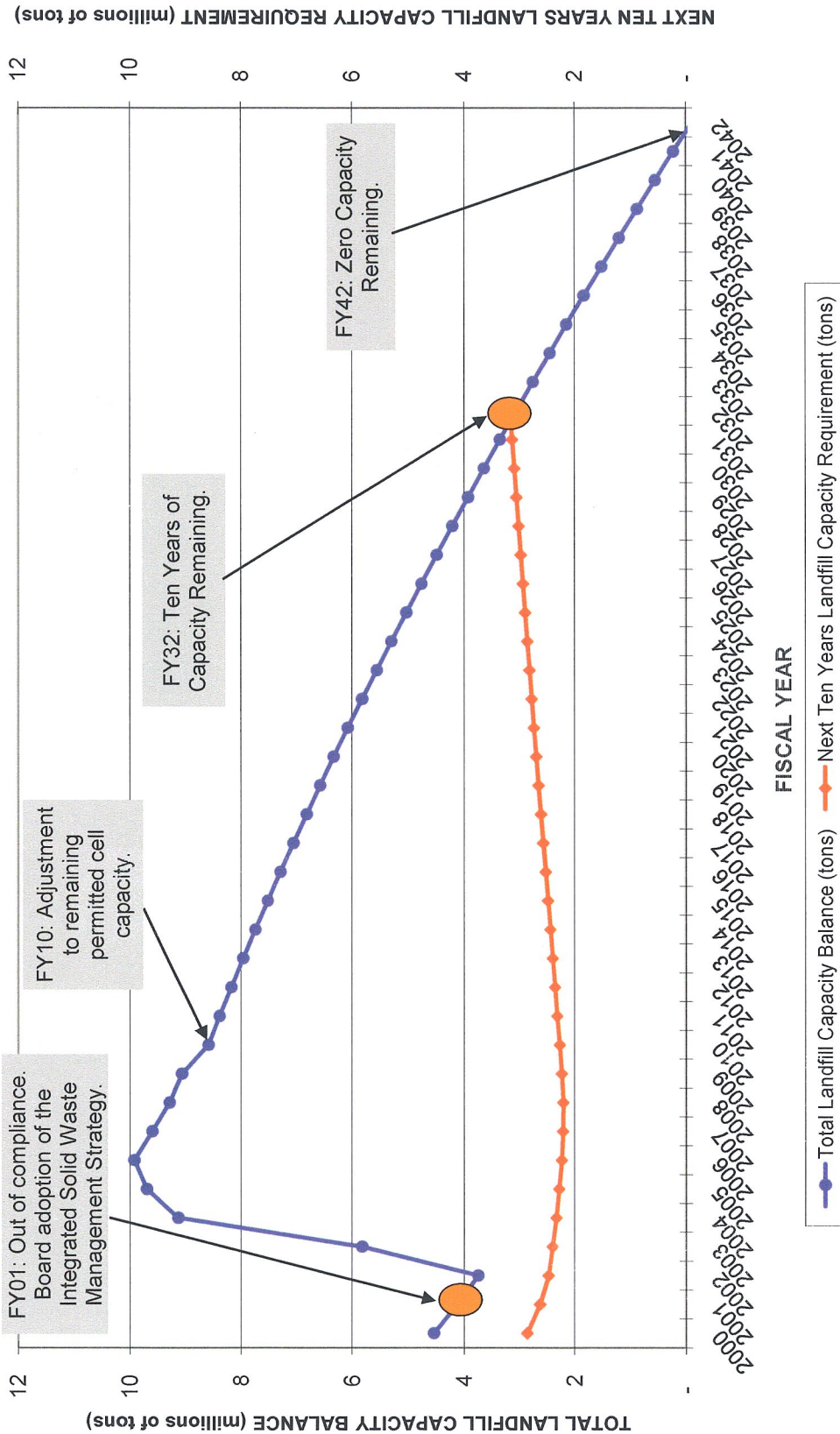
August 04, 2011

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

1. Fiscal Year starts October 1 and ends September 30.
2. Peak Population. Estimates and projections for the existing service area are based on "Collier County Peak Season Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are derived from data obtained from: 2010 Census; Bureau of Economic and Business Research (BEBR) population bulletins; Collier County Comprehensive Planning staff; and, Planning staff from Naples and Marco Island. FY 2035 - FY 2042 projected based on average percentage increase for FY 2032 - FY 2034 (1.27%).
3. Tons Per Capita Disposal Rate for FY 2010 and FY 2011 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2012 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2009, FY 2010, and FY 2011.
4. Annual Tons Disposed for FY 2010 is actual tonnage amount buried at the Collier County Landfill. FY 2011 reflects the projected tons disposed from the current year forecast. FY 2012 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 value in the Total Landfill Capacity Balance (column 5) is from Waste Management, Inc. of Florida (WMIF) Annual Estimate of Remaining Life and Capacity Letter plus 930,000 tons of contracted disposal capacity at the Okeechobee Landfill. See graph on page SW-4.
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. See graph on page SW-4.
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 1: 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  
August 04, 2011



Collier County Government  
Public Utilities Division  
2011 Annual Update and Inventory Report (AUIR)

**Table 2: 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 04, 2011

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	<b>2,325,580</b>	580,312	1,745,268
2003	359,191	0.80	288,409	2,037,171	566,680	1,470,491
2004	374,384	0.78	291,903	1,745,268	553,161	1,192,107
2005	386,668	0.71	274,777	1,470,491	533,273	937,218
2006	396,310	0.70	278,384	<b>1,973,878</b>	496,705	1,477,173
2007	400,027	0.64	254,889	1,718,989	457,154	1,261,835
2008	399,532	0.61	241,816	1,477,173	424,615	1,052,558
2009	399,979	0.54	215,338	<b>2,107,085</b>	411,751	1,695,334
2010	389,149	0.54	209,277	2,027,287	415,577	1,611,710
<b>2011</b>	<b>395,856</b>	<b>0.51</b>	<b>202,474</b>	1,824,813	429,879	1,394,934
2012	402,679	<b>0.53</b>	213,103	<b>2,436,710</b>	437,288	1,999,422
2013	409,620	0.53	216,776	2,219,934	445,000	1,774,934
2014	416,680	0.53	220,512	1,999,422	453,199	1,546,223
2015	424,193	0.53	224,488	<b>3,154,934</b>	461,724	2,693,210
2016	432,172	0.53	228,711	2,926,223	470,409	2,455,814
2017	440,302	0.53	233,013	<b>7,050,648</b>	479,258	6,571,390
2018	448,584	0.53	237,396	6,813,252	488,040	6,325,212
2019	457,022	0.53	241,862	6,571,390	496,517	6,074,873
2020	465,178	0.53	246,178	6,325,212	504,908	5,820,303
2021	473,040	0.53	250,339	6,074,873	513,442	5,561,431
2022	481,035	0.53	254,570	5,820,303	522,119	5,298,184
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2024	497,432	0.53	263,247	5,298,184	538,753	4,759,431
2025	505,294	0.53	267,408	5,030,776	546,688	4,484,089
2026	512,735	0.53	271,346	4,759,431	554,739	4,204,692
2027	520,286	0.53	275,342	4,484,089	562,909	3,921,180
2028	527,948	0.53	279,397	4,204,692	570,910	3,633,782
2029	535,724	0.53	283,512	3,921,180	578,448	3,342,733
2030	543,068	0.53	287,398	3,633,782	585,796	3,047,986
2031	549,967	0.53	291,049	3,342,733	593,238	2,749,494
2032	556,954	0.53	294,747	3,047,986	600,775	2,447,211
2033	564,029	0.53	298,491	2,749,494	608,407	2,141,087
2034	571,195	0.53	302,283	2,447,211	616,136	1,831,075
2035	578,451	0.53	306,124	2,141,087	623,964	1,517,124
2036	585,800	0.53	310,013	1,831,075	631,890	1,199,184
2037	593,242	0.53	313,951	1,517,124	639,918	877,206
2038	600,778	0.53	317,939	1,199,184	648,047	551,137
2039	608,411	0.53	321,979	877,206	656,280	220,926
2040	616,140	0.53	326,069	551,137	664,618	(113,481)
2041	623,967	0.53	330,211	220,926	N/A	N/A
2042	631,894	0.53	334,406	(113,481)	N/A	N/A

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**Table 2: 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 04, 2011

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

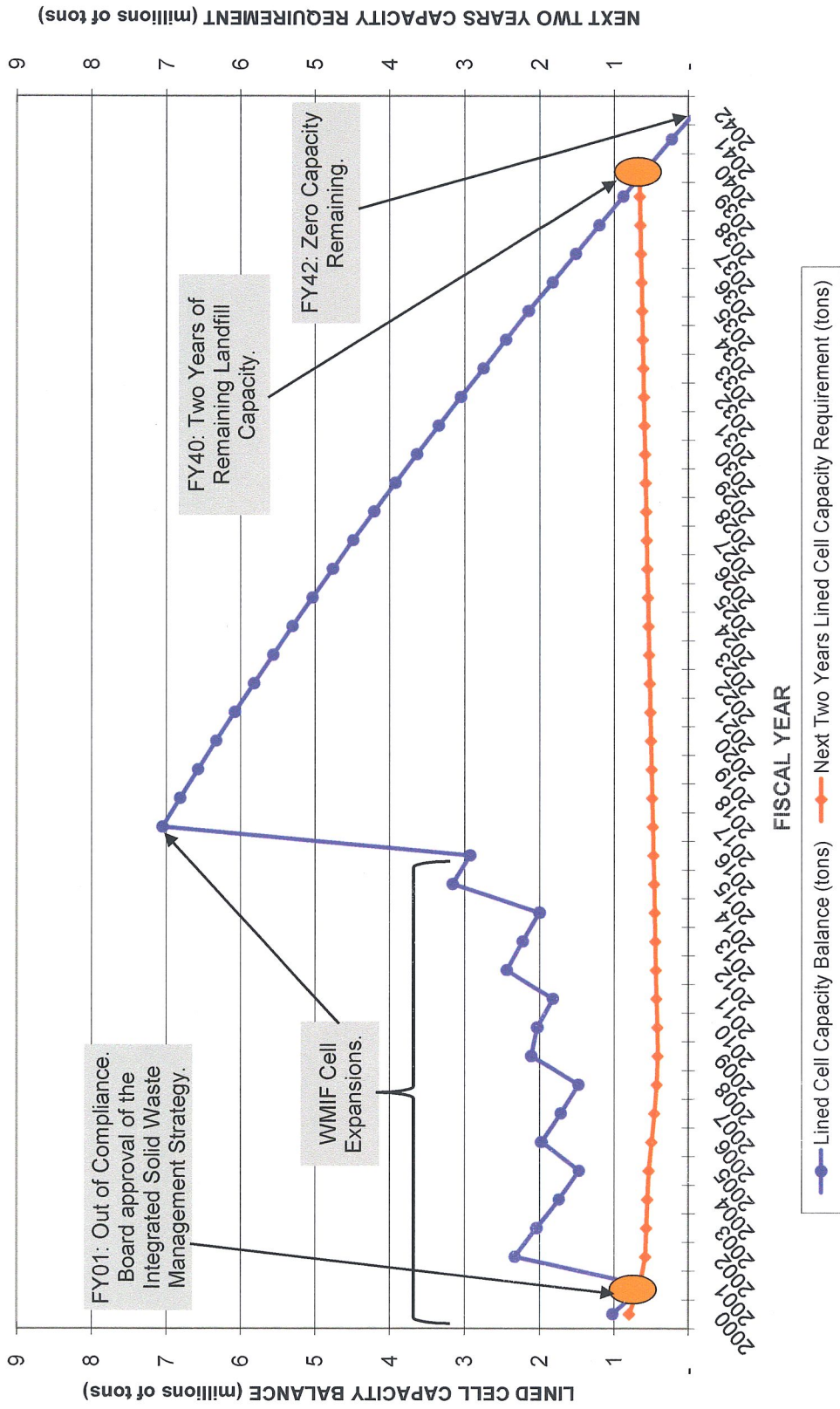
1. Fiscal Year starts October 1 and ends September 30.
2. Peak Population. Estimates and projections for the existing service area are based on "Collier County Peak Season Population Estimates and Projections" dated June 29, 2011, prepared by Collier County Comprehensive Planning Section. Populations are derived from data obtained from: 2010 Census; Bureau of Economic and Business Research (BEBR) population bulletins; Collier County Comprehensive Planning staff; and, Planning staff from Naples and Marco Island. FY 2035 - FY 2042 projected based on average percentage increase for FY 2032 - FY 2034 (1.27%).
3. Tons Per Capita Disposal Rate for FY 2000 - FY 2011 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2012 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2009, FY 2010, and FY 2011.
4. Annual Tons Disposed for FY 2000 - FY 2010 are actual tonnage amounts buried at the Collier County Landfill. FY 2011 reflects the projected tons disposed from the current year forecast. FY 2012 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). Also see graph on page SW-7.

Fiscal Year	New Capacity (tons)	Description	Source of Information
2002	930,000	Contracted disposal capacity at the Okeechobee Landfill.	June 12, 2001 Disposal Capacity Agreement.
2002	1,173,575	Lined Cell Expansion	Complete.
2006	911,250	Lined Cell Expansion	Complete.
2009	845,250	Lined Cell Expansion	Complete.
2012	825,000	Lined Cell Expansion	Waste Management, Inc. of Florida (WMIF) 5-year Cell Development Schedule received 05/20/11.
2015	1,380,000	Lined Cell Expansion	WMIF 5-year Cell Development Schedule dated 05/20/11.
2018	4,357,438	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 01-28-11, less completed and 5-year Scheduled 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. See graph on page SW-7.
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 2: 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  
 August 04, 2011





Collier County Government  
Public Utilities Division  
2011 Annual Update and Inventory Report (AUIR)

**CHANGES FROM 2010 AUIR**

August 4, 2011

2011 AUIR Column Number and Category	2010 AUIR	2011 AUIR	Reason for Change
<b>BOTTOM LINE:</b> Zero Disposal (airspace) Capacity	<b>FY39</b>	<b>FY42</b>	Two factors contributed to the extension of the Zero Disposal Capacity. First, the population projections are reduced from the previous year. Second, the Tons Per Capita Disposal Rate is reduced from the previous year.
(2) Peak Population	FY11: 411,524	FY11: 395,856	The Collier County Peak Population Projections decreased from the previous year.
(3) Tons Per Capita Disposal Rate	FY12: 0.55 tons/ capita/yr	FY12: 0.53 tons/ capita/yr	Increased recycling lowered the two previous years' average Tons Per Capita Disposal Rate.
(4) Annual Tons Disposed	FY12: 232,119 tons	FY12: 211,259 tons	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 three year average Tons Per Capita Disposal Rate.
(5) Total Landfill Capacity Balance, Table 1	FY09 and forward	FY10 and forward	The 2011 AUIR 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.
(5) Lined Cell Capacity Balance, Table 2	FY09 and forward	FY10 and forward	The 2011 AUIR 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.

# Schedule of Capital Improvement

## “Exhibit A & Exhibit H”

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

SOLID WASTE DISPOSAL FACILITIES PROJECTS		CONSTRUCTION SCHEDULE NOTES	\$ AMOUNT		\$ AMOUNT		\$ AMOUNT		\$ AMOUNT	
CIE #	PROJECT		FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTAL		
TBD	County Landfill Cell Construction		\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>SOLID WASTE DISPOSAL FACILITIES PROJECT TOTALS</b>			\$0	\$0	\$0	\$0	\$0	\$0	\$0	

REVENUE KEY - REVENUE SOURCE	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTAL
LTF - Landfill Tipping Fees	\$0	\$0	\$0	\$0	\$0	\$0
<b>REVENUE TOTAL</b>	\$0	\$0	\$0	\$0	\$0	\$0

NOTE: Collier County has adopted a two-year Concurrency Management System. Figures provided for years three, four and five of this Schedule of Capital Improvements are not part of the Concurrency Management System but must be financially feasible with a dedicated revenue source or an alternative revenue source if the dedicated revenue source is not realized. Figures provided for years six through ten of the Schedule of Capital Improvements are estimates of revenues versus project costs but do not constitute a long term concurrency system.

\* Pursuant to the Landfill Operating Agreement (LOA) with Waste Management, Inc. of Florida (WMIF), landfill cell construction is scheduled and guaranteed by WMIF over the life of the Collier County Landfill. Collier County landfill expansion costs are paid for by WMIF through agreed upon Collier County landfill tipping fees. By contract under the LOA, WMIF will construct any future required cells. Landfill cells vary in size and disposal capacity.

SOLID WASTE DISPOSAL FACILITIES PROJECTS										
CIE #	PROJECT	CONSTRUCTION	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT
TBD	County Landfill Cell Construction	SCHEDULE NOTES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL		
			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>SOLID WASTE DISPOSAL FACILITIES PROJECT TOTALS</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

REVENUE KEY - REVENUE SOURCE										
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL		
	LTF - Landfill Tipping Fees		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>REVENUE TOTAL</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

NOTE: Collier County has adopted a two-year Concurrency Management System. Figures provided for years three, four and five of this Schedule of Capital Improvements are not part of the Concurrency Management System but must be financially feasible with a dedicated revenue source or an alternative revenue source if the dedicated revenue source is not realized. Figures provided for years six through ten of the Schedule of Capital Improvements are estimates of revenues versus project costs but do not constitute a long term concurrency system.

\* Pursuant to the Landfill Operating Agreement (LOA) with Waste Management, Inc. of Florida (WMIF), landfill cell construction is scheduled and guaranteed by WMIF over the life of the Collier County Landfill. Collier County landfill expansion costs are paid for by WMIF through agreed upon Collier County landfill tipping fees. By contract under the LOA, WMIF will construct any future required cells. Landfill cells vary in size and disposal capacity.