

SOLID WASTE DISPOSAL FACILITIES

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 2012 AUIR**

Collier County Government
Public Utilities Division
2013 Annual Update and Inventory Report (AUIR)

COLLIER COUNTY LANDFILL DISPOSAL CAPACITY

Introduction:

The Public Utilities Division's 2013 AUIR submittals are based on "Collier County Peak Season Population Estimates and Projections" dated June 7, 2013, prepared by Collier County Comprehensive Planning Section. Populations are derived from data obtained from: The 2010 Census; Bureau of Economic and Business Research (BEBR) population bulletins; Collier County Comprehensive Planning staff; and, Planning staff from the Cities of Naples and Marco Island. FY 2035 - FY 2070 projected populations are based on average annual percentage increases for FY 2032 - FY 2034 (1.12%). There are two notable changes from the 2012 Collier County Landfill Disposal Capacity AUIR:

1. The 2013 Solid Waste AUIR projects that the Collier County Landfill will have zero capacity remaining in FY 2070, while the 2012 Solid Waste AUIR projected that the Collier County Landfill would have zero capacity remaining in FY 2067. The increase of three years of 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 an update to peak population projections.
2. The projected Tons Per Capita Disposal Rate in the 2013 Solid Waste AUIR for 2014 forward is 0.51, which is a decrease from the projected Tons Per Capita Disposal Rate in the 2012 Solid Waste AUIR of 0.52. This is again reflective of the recycling and diversion initiatives evident in the previous 12 years.

The 2013 Solid Waste AUIR is presented as a snapshot of concurrency conditions. The Collier County Solid and Hazardous Waste Management Department is in compliance with concurrency requirements for FY 2013 and FY 2014, as required by FS Section 163, the Collier County Comprehensive Plan and the Land Development Code.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2013 Collier County Landfill Disposal Capacity AUIR and continue to support the Integrated Solid Waste Management Strategy initiatives to increase recycling, and to divert recyclables and hazardous waste from the Collier County Landfill.

Collier County Government
Public Utilities Division
2013 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**

July 24, 2013

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	2,623,566	1,483,837
2002	341,954	1.07	366,547	3,740,856	2,460,204	1,280,652
2003	359,191	0.80	288,409	5,820,359	2,379,102	3,441,257
2004	374,384	0.78	291,903	9,130,976	2,298,432	6,832,544
2005	386,668	0.71	274,777	9,695,124	2,238,800	7,456,324
2006	396,310	0.70	278,384	9,920,278	2,179,899	7,740,379
2007	400,027	0.64	254,889	9,594,647	2,148,918	7,445,729
2008	399,532	0.61	241,816	9,282,412	2,135,524	7,146,888
2009	399,979	0.54	215,338	9,067,074	2,153,214	6,913,860
2010	387,183	0.54	209,277	8,857,797	2,181,309	6,676,489
2011	392,180	0.52	202,226	8,655,571	2,220,525	6,435,047
2012	399,153	0.51	203,185	18,566,434	2,262,921	16,303,513
2013	405,876	0.51	207,307	18,359,127	2,305,407	16,053,720
2014	412,713	0.51	211,233	18,147,894	2,348,250	15,799,644
2015	420,355	0.51	215,145	17,932,749	2,391,121	15,541,628
2016	428,831	0.51	219,483	17,713,266	2,433,239	15,280,027
2017	437,477	0.51	223,908	17,489,358	2,474,567	15,014,791
2018	446,297	0.51	228,422	17,260,936	2,515,065	14,745,871
2019	455,296	0.51	233,028	17,027,908	2,554,695	14,473,213
2020	463,782	0.51	237,372	16,790,536	2,593,404	14,197,133
2021	471,735	0.51	241,442	16,549,094	2,631,144	13,917,951
2022	479,824	0.51	245,582	16,303,513	2,667,880	13,635,632
2023	488,051	0.51	249,793	16,053,720	2,703,578	13,350,142
2024	496,420	0.51	254,076	15,799,644	2,738,205	13,061,438
2025	504,118	0.51	258,016	15,541,628	2,772,136	12,769,491
2026	511,122	0.51	261,601	15,280,027	2,805,762	12,474,265
2027	518,224	0.51	265,236	15,014,791	2,839,070	12,175,721
2028	525,424	0.51	268,921	14,745,871	2,872,047	11,873,824
2029	532,724	0.51	272,657	14,473,213	2,904,678	11,568,535
2030	539,413	0.51	276,081	14,197,133	2,937,316	11,259,817
2031	545,473	0.51	279,182	13,917,951	2,970,320	10,947,630
2032	551,601	0.51	282,318	13,635,632	3,003,695	10,631,937
2033	557,797	0.51	285,490	13,350,142	3,037,446	10,312,697
2034	564,076	0.51	288,704	13,061,438	3,071,568	9,989,870
2035	570,413	0.51	291,947	12,769,491	3,106,074	9,663,417
2036	576,821	0.51	295,227	12,474,265	3,140,968	9,333,297
2037	583,301	0.51	298,543	12,175,721	3,176,253	8,999,468
2038	589,854	0.51	301,897	11,873,824	3,211,935	8,661,888
2039	596,481	0.51	305,289	11,568,535	3,248,018	8,320,517
2040	603,181	0.51	308,718	11,259,817	3,284,507	7,975,310
2041	609,958	0.51	312,186	10,947,630	3,321,405	7,626,226
2042	616,810	0.51	315,694	10,631,937	3,358,717	7,273,219

Collier County Government
Public Utilities Division
2013 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**

July 24, 2013

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)
2043	623,739	0.51	319,240	10,312,697	3,396,449	6,916,247
2044	630,746	0.51	322,826	9,989,870	3,434,605	6,555,265
2045	637,832	0.51	326,453	9,663,417	3,473,189	6,190,228
2046	644,997	0.51	330,120	9,333,297	3,512,207	5,821,090
2047	652,243	0.51	333,829	8,999,468	3,551,663	5,447,804
2048	659,571	0.51	337,579	8,661,888	3,591,563	5,070,326
2049	666,980	0.51	341,372	8,320,517	3,631,910	4,688,607
2050	674,473	0.51	345,207	7,975,310	3,672,711	4,302,599
2051	682,050	0.51	349,085	7,626,226	3,713,970	3,912,255
2052	689,712	0.51	353,006	7,273,219	3,755,693	3,517,526
2053	697,460	0.51	356,972	6,916,247	3,797,885	3,118,363
2054	705,296	0.51	360,982	6,555,265	3,840,550	2,714,715
2055	713,219	0.51	365,037	6,190,228	3,883,695	2,306,533
2056	721,231	0.51	369,138	5,821,090	3,927,324	1,893,765
2057	729,334	0.51	373,285	5,447,804	3,971,444	1,476,361
2058	737,527	0.51	377,479	5,070,326	4,016,059	1,054,267
2059	745,812	0.51	381,719	4,688,607	4,061,175	627,431
2060	754,191	0.51	386,007	4,302,599	4,106,799	195,801
2061	762,663	0.51	390,344	3,912,255	N/A	N/A
2062	771,231	0.51	394,729	3,517,526	N/A	N/A
2063	779,895	0.51	399,163	3,118,363	N/A	N/A
2064	788,656	0.51	403,648	2,714,715	N/A	N/A
2065	797,516	0.51	408,182	2,306,533	N/A	N/A
2066	806,476	0.51	412,768	1,893,765	N/A	N/A
2067	815,535	0.51	417,405	1,476,361	N/A	N/A
2068	824,697	0.51	422,094	1,054,267	N/A	N/A
2069	833,962	0.51	426,836	627,431	N/A	N/A
2070	843,331	0.51	431,631	195,801	N/A	N/A

Collier County Government
Public Utilities Division
2013 Annual Update and Inventory Report (AUIR)

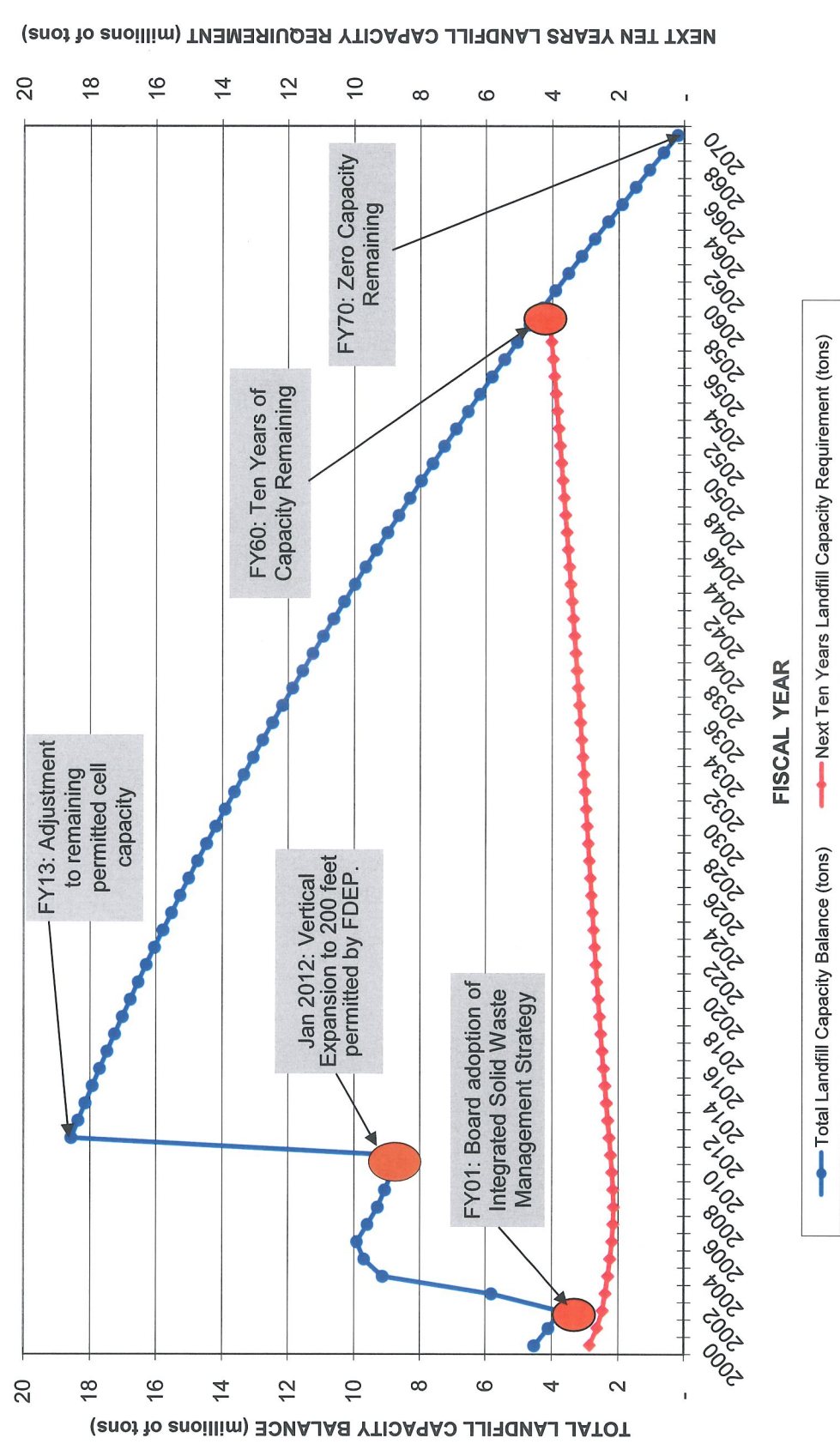
**Table 1: Collier County Landfill Disposal Capacity
Level of Service Standard: Ten Years of Permitted Landfill Capacity
at Previous Three Years Average Tons Per Capita Disposal Rate**

July 24, 2013

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 7, 2013, 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 2070 projected based on average annual percentage increase for FY 2032 - FY 2034 (1.12%).
3. Tons Per Capita Disposal Rate for FY 2012 and FY 2013 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2014 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2011, FY 2012, and FY 2013.
4. Annual Tons Disposed for FY 2012 is actual tonnage amount buried at the Collier County Landfill. FY 2013 reflects the projected tons disposed from the current year forecast. FY 2014 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's (WMIF) Annual Estimate of Remaining Life and Capacity Letter that includes the Board approved and FDEP permitted vertical expansion plus 930,000 tons of contracted disposal capacity at the Okeechobee Landfill. See graph on page SW-5.
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-5.
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
 July 24, 2013



Collier County Government
Public Utilities Division
2013 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

July 24, 2013

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	2,325,580	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	1,973,878	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	2,107,085	411,503	1,695,582
2010	387,183	0.54	209,277	2,027,287	405,411	1,621,876
2011	392,180	0.52	202,226	1,825,061	410,492	1,414,569
2012	399,153	0.51	203,185	1,621,876	418,540	1,203,336
2013	405,876	0.51	207,307	2,239,569	426,378	1,813,191
2014	412,713	0.51	211,233	2,028,336	434,628	1,593,708
2015	420,355	0.51	215,145	1,813,191	443,390	1,369,800
2016	428,831	0.51	219,483	2,973,708	452,330	2,521,378
2017	437,477	0.51	223,908	2,749,800	461,450	2,288,350
2018	446,297	0.51	228,422	2,521,378	470,400	2,050,979
2019	455,296	0.51	233,028	17,027,908	478,813	16,549,094
2020	463,782	0.51	237,372	16,790,536	487,024	16,303,513
2021	471,735	0.51	241,442	16,549,094	495,375	16,053,720
2022	479,824	0.51	245,582	16,303,513	503,869	15,799,644
2023	488,051	0.51	249,793	16,053,720	512,092	15,541,628
2024	496,420	0.51	254,076	15,799,644	519,617	15,280,027
2025	504,118	0.51	258,016	15,541,628	526,836	15,014,791
2026	511,122	0.51	261,601	15,280,027	534,156	14,745,871
2027	518,224	0.51	265,236	15,014,791	541,578	14,473,213
2028	525,424	0.51	268,921	14,745,871	548,738	14,197,133
2029	532,724	0.51	272,657	14,473,213	555,263	13,917,951
2030	539,413	0.51	276,081	14,197,133	561,500	13,635,632
2031	545,473	0.51	279,182	13,917,951	567,808	13,350,142
2032	551,601	0.51	282,318	13,635,632	574,194	13,061,438
2033	557,797	0.51	285,490	13,350,142	580,651	12,769,491
2034	564,076	0.51	288,704	13,061,438	587,174	12,474,265
2035	570,413	0.51	291,947	12,769,491	593,770	12,175,721
2036	576,821	0.51	295,227	12,474,265	600,441	11,873,824
2037	583,301	0.51	298,543	12,175,721	607,186	11,568,535
2038	589,854	0.51	301,897	11,873,824	614,007	11,259,817
2039	596,481	0.51	305,289	11,568,535	620,905	10,947,630
2040	603,181	0.51	308,718	11,259,817	627,880	10,631,937
2041	609,958	0.51	312,186	10,947,630	634,934	10,312,697
2042	616,810	0.51	315,694	10,631,937	642,067	9,989,870

Collier County Government
Public Utilities Division
2013 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**

July 24, 2013

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)
2043	623,739	0.51	319,240	10,312,697	649,280	9,663,417
2044	630,746	0.51	322,826	9,989,870	656,574	9,333,297
2045	637,832	0.51	326,453	9,663,417	663,949	8,999,468
2046	644,997	0.51	330,120	9,333,297	671,408	8,661,888
2047	652,243	0.51	333,829	8,999,468	678,951	8,320,517
2048	659,571	0.51	337,579	8,661,888	686,578	7,975,310
2049	666,980	0.51	341,372	8,320,517	694,291	7,626,226
2050	674,473	0.51	345,207	7,975,310	702,091	7,273,219
2051	682,050	0.51	349,085	7,626,226	709,978	6,916,247
2052	689,712	0.51	353,006	7,273,219	717,954	6,555,265
2053	697,460	0.51	356,972	6,916,247	726,020	6,190,228
2054	705,296	0.51	360,982	6,555,265	734,176	5,821,090
2055	713,219	0.51	365,037	6,190,228	742,423	5,447,804
2056	721,231	0.51	369,138	5,821,090	750,764	5,070,326
2057	729,334	0.51	373,285	5,447,804	759,198	4,688,607
2058	737,527	0.51	377,479	5,070,326	767,727	4,302,599
2059	745,812	0.51	381,719	4,688,607	776,351	3,912,255
2060	754,191	0.51	386,007	4,302,599	785,073	3,517,526
2061	762,663	0.51	390,344	3,912,255	793,892	3,118,363
2062	771,231	0.51	394,729	3,517,526	802,811	2,714,715
2063	779,895	0.51	399,163	3,118,363	811,830	2,306,533
2064	788,656	0.51	403,648	2,714,715	820,950	1,893,765
2065	797,516	0.51	408,182	2,306,533	830,172	1,476,361
2066	806,476	0.51	412,768	1,893,765	839,499	1,054,267
2067	815,535	0.51	417,405	1,476,361	848,929	627,431
2068	824,697	0.51	422,094	1,054,267	858,466	195,801
2069	833,962	0.51	426,836	627,431	N/A	N/A
2070	843,331	0.51	431,631	195,801	N/A	N/A

Collier County Government
Public Utilities Division
2012 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**

July 24, 2013

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 7, 2013, 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 2070 projected based on average annual percentage increase for FY 2032 - FY 2034 (1.12%).
3. Tons Per Capita Disposal Rate for FY 2000 - FY 2013 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2014 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2011, FY 2012, and FY 2013.
4. Annual Tons Disposed for FY 2000 - FY 2012 are actual tonnage amounts buried at the Collier County Landfill. FY 2013 reflects the projected tons disposed from the current year forecast. FY 2014 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-9.

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, as amended.
2002	1,173,575	Lined Cell Expansion	Complete.
2006	911,250	Lined Cell Expansion	Complete.
2009	845,250	Lined Cell Expansion	Complete.
2013	825,000	Lined Cell Expansion	Waste Management, Inc. of Florida (WMIF) 5-year Cell Development Schedule received 06/07/13.
2016	1,380,000	Lined Cell Expansion	WMIF 5-year Cell Development Schedule dated 06/07/13.
2019	14,739,558	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 03-01-13, 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-9.
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
 July 24, 2013

