COUNTY SOLID WASTE

CONTENTS

- INTRODUCTION
- TABLE 1 COLLIER COUNTY LANDFILL DISPOSAL CAPACITY LEVEL OF SERVICE STANDARD: TEN YEARS OF PERMITTED LANDFILL CAPACTY 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 2009 AUIR
- CIE AMENDMENT SUBMITTAL "EXHIBIT A" & "EXHIBIT H"

COLLIER COUNTY LANDFILL DISPOSAL CAPACITY

Introduction:

The Public Utilities Division's 2010 AUIR submittals are based on "Collier County Peak Season Population Estimates and Projections" dated June 11, 2010, prepared by Collier County Comprehensive Planning Section. 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 2039 projected based on average percentage increase for FY 2026 - FY 2029 (1.61%). There is one notable change from the 2009 Collier County Landfill Disposal Capacity AUIR:

1. The projected Tons Per Capita Disposal Rate in the 2010 Solid Waste AUIR for 2011 forward is 0.55, which is a decrease from the projected Tons Per Capita Disposal Rate in the 2009 Solid Waste AUIR of 0.59. This reflects the positive impacts of the past and current solid waste management initiatives that have increased recycling and decreased disposal with the adoption of the Board approved Integrated Solid Waste Management Strategy.

Recommendations:

The Public Utilities Division's staff recommends that the Collier County Board of County Commissioners approve the 2010 Collier County Landfill Disposal Capacity AUIR and continue to support the Integrated Solid Waste Management Strategy.

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 15, 2010

| 1 | 2 | 3 | 4 | 5 6 | | 7 |
|--------|------------|----------|-------------|----------------|----------------|--------------------|
| | | | | | Next Ten Years | Ten Year |
| l | | Tons Per | | Total Landfill | Landfill | Permitted Landfill |
| Fiscal | Peak | Capita | Annual Tons | Capacity | Capacity | Capacity Surplus |
| Year | Population | Disposal | Disposed | Balance (tons) | Requirement | or Deficiency |
| | | Rate | | , , | (tons) | (tons) |
| 2000 | 309,511 | 1.23 | 381,499 | 4,537,914 | 2,851,746 | 1,686,168 |
| 2001 | 325,159 | 1.32 | 430,511 | 4,107,403 | 2,649,128 | 1,458,275 |
| 2002 | 341,954 | 1.07 | 366,547 | 3,740,856 | 2,514,700 | 1,226,156 |
| 2003 | 359,191 | 0.80 | 288,409 | 5,820,359 | 2,462,714 | 3,357,645 |
| 2004 | 374,384 | 0.78 | 291,903 | 9,130,976 | 2,411,619 | 6,719,357 |
| 2005 | 386,668 | 0.71 | 274,777 | 9,695,124 | 2,382,460 | 7,312,664 |
| 2006 | 396,310 | 0.70 | 278,384 | 9,920,278 | 2,354,944 | 7,565,333 |
| 2007 | 400,027 | 0.64 | 254,889 | 9,594,647 | 2,356,287 | 7,238,360 |
| 2008 | 399,532 | 0.61 | 241,816 | 9,282,412 | 2,376,181 | 6,906,231 |
| 2009 | 399,979 | 0.54 | 215,338 | 8,831,381 | 2,428,149 | 6,403,233 |
| 2010 | 404,032 | 0.52 | 209,172 | 8,622,209 | 2,491,663 | 6,130,547 |
| 2011 | 411,524 | 0.55 | 227,893 | 8,394,316 | 2,541,610 | 5,852,706 |
| 2012 | 419,155 | 0.55 | 232,119 | 8,162,197 | 2,592,584 | 5,569,613 |
| 2013 | 426,928 | 0.55 | 236,423 | 7,925,774 | 2,644,604 | 5,281,170 |
| 2014 | 434,845 | 0.55 | 240,808 | 7,684,966 | 2,697,693 | 4,987,273 |
| 2015 | 443,531 | 0.55 | 245,618 | 7,439,349 | 2,751,116 | 4,688,232 |
| 2016 | 453,013 | 0.55 | 250,869 | 7,188,480 | 2,804,115 | 4,384,365 |
| 2017 | 462,698 | 0.55 | 256,232 | 6,932,248 | 2,856,653 | 4,075,595 |
| 2018 | 472,590 | 0.55 | 261,710 | 6,670,538 | 2,908,696 | 3,761,842 |
| 2019 | 482,694 | 0.55 | 267,305 | 6,403,233 | 2,960,207 | 3,443,026 |
| 2020 | 492,410 | 0.55 | 272,686 | 6,130,547 | 3,011,482 | 3,119,064 |
| 2021 | 501,718 | 0.55 | 277,841 | 5,852,706 | 3,062,831 | 2,789,875 |
| 2022 | 511,202 | 0.55 | 283,093 | 5,569,613 | 3,114,240 | 2,455,373 |
| 2023 | 520,866 | 0.55 | 288,444 | 5,281,170 | 3,165,696 | 2,115,473 |
| 2024 | 530,711 | 0.55 | 293,896 | 4,987,273 | 3,217,185 | 1,770,088 |
| 2025 | 540,002 | 0.55 | 299,041 | 4,688,232 | 3,269,103 | 1,419,129 |
| 2026 | 548,716 | 0.55 | 303,867 | 4,384,365 | 3,321,859 | 1,062,506 |
| 2027 | 557,571 | 0.55 | 308,770 | 4,075,595 | 3,375,467 | 700,128 |
| 2028 | 566,568 | 0.55 | 313,753 | 3,761,842 | 3,429,940 | 331,902 |
| 2029 | 575,712 | 0.55 | 318,816 | 3,443,026 | 3,485,292 | (42,266) |
| 2030 | 585,002 | 0.55 | 323,961 | 3,119,064 | N/A | N/A |
| 2031 | 594,443 | 0.55 | 329,189 | 2,789,875 | N/A | N/A |
| 2032 | 604,036 | 0.55 | 334,502 | 2,455,373 | N/A | N/A |
| 2033 | 613,784 | 0.55 | 339,900 | 2,115,473 | N/A | N/A |
| 2034 | 623,689 | 0.55 | 345,385 | 1,770,088 | N/A | N/A |
| 2035 | 633,754 | 0.55 | 350,959 | 1,419,129 | N/A | N/A |
| 2036 | 643,982 | 0.55 | 356,623 | 1,062,506 | N/A | N/A |
| 2037 | 654,374 | 0.55 | 362,378 | 700,128 | N/A | N/A |
| 2038 | 664,934 | 0.55 | 368,226 | 331,902 | N/A | N/A |
| 2039 | 675,665 | 0.55 | 374,168 | (42,266) | N/A | N/A |

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

July 15, 2010

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

- 1. Fiscal Year starts October 1 and ends September 30.
- Peak Population. Estimates and projections for the existing service area are based on "Collier County Peak Season Population Estimates and Projections" dated June 11, 2010, prepared by Collier County Comprehensive Planning Section. 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 2039 projected based on average percentage increase for FY 2026 - FY 2029 (1.61%).
- 3. <u>Tons Per Capita Disposal Rate</u> for FY 2000 FY 2010 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2011 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2008, FY 2009, and FY 2010.
- 4. <u>Annual Tons Disposed</u> for FY 2000 FY 2009 are actual tonnage amounts buried at the Collier County Landfill. FY 2010 reflects the projected tons disposed from the current year forecast. FY 2011 forward are derived from Peak Population (column 2) multiplied by the Tons Per Capita Disposal Rate (column 3).
- 5. <u>Total Landfill Capacity Balance (tons)</u> 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 Okeechobee. 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. <u>Ten Year Permitted Landfill Capacity Surplus or Deficiency (tons)</u> is the Total Landfill Capacity Balance (column 5) minus the Next Ten Years Landfill Capacity Requirement (column 6).

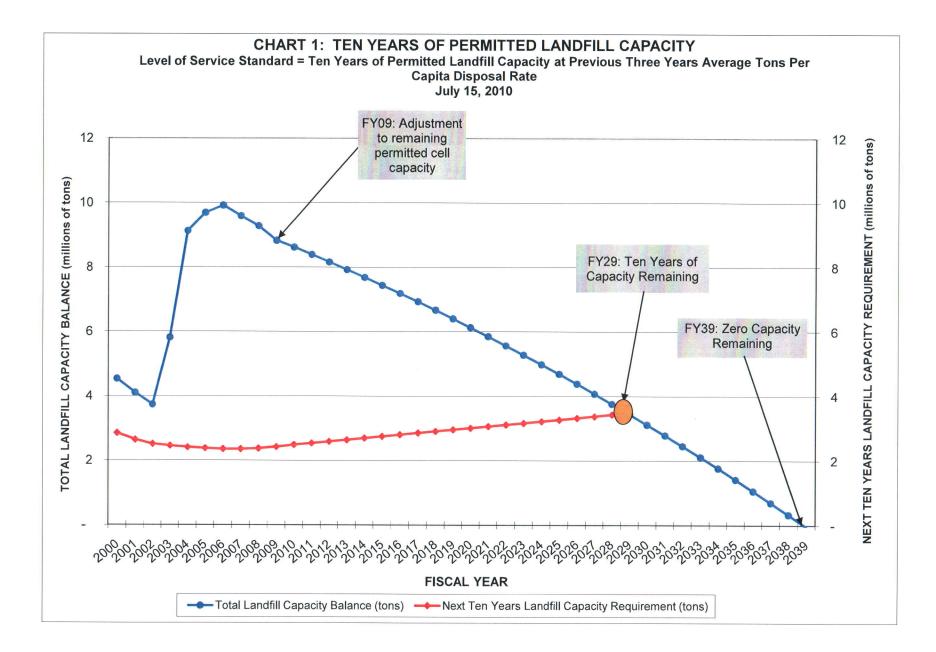


Table 2: Collier County Landfill Disposal Capacity Level of Service Standard: Two Years of Lined Cell Capacity at Previous Three Years Average Tons Per Capita Disposal Rate

July 15, 2010

| 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 | | | 222,005 | | |
| 2001 | 325,159 | 1.32 | 430,511 | 588,552 | 654,956 | (66,404) | | |
| 2002 | 341,954 | 1.07 | 366,547 | 1,395,580 | 580,312 | 815,268 | | |
| 2003 | 359,191 | 0.80 | 288,409 | 1,107,171 | 566,680 | 540,491 | | |
| 2004 | 374,384 | 0.78 | 291,903 | 815,268 | 553,161 | 262,107 | | |
| 2005 | 386,668 | 0.71 | 274,777 | 540,491 | 533,273 | 7,218 | | |
| 2006 | 396,310 | 0.70 | 278,384 | 1,043,878 | 496,705 | 547,173 | | |
| 2007 | 400,027 | 0.64 | 254,889 | 788,989 | 457,154 | 331,835 | | |
| 2008 | 399,532 | 0.61 | 241,816 | 1,477,173 | 424,510 | 1,052,663 | | |
| 2009 | 399,979 | 0.54 | 215,338 | 2,107,085 | 437,065 | 1,670,020 | | |
| 2010 | 404,032 | 0.52 | 209,172 | 1,897,913 | 460,012 | 1,437,901 | | |
| 2011 | 411,524 | 0.55 | 227,893 | 1,670,020 | 468,542 | 1,201,478 | | |
| 2012 | 419,155 | 0.55 | 232,119 | 2,274,151 | 477,231 | 1,796,920 | | |
| 2013 | 426,928 | 0.55 | 236,423 | 2,037,728 | 486,425 | 1,551,302 | | |
| 2014 | 434,845 | 0.55 | 240,808 | 1,796,920 | 496,486 | 1,300,434 | | |
| 2015 | 443,531 | 0.55 | 245,618 | 2,931,302 | 507,101 | 2,424,202 | | |
| 2016 | 453,013 | 0.55 | 250,869 | 2,680,434 | 517,942 | 2,162,492 | | |
| 2017 | 462,698 | 0.55 | 256,232 | 6,932,248 | 529,015 | 6,403,233 | | |
| 2018 | 472,590 | 0.55 | 261,710 | 6,670,538 | 539,991 | 6,130,547 | | |
| 2019 | 482,694 | 0.55 | 267,305 | 6,403,233 | <u>55</u> 0,527 | 5,852,706 | | |
| 2020 | 492,410 | 0.55 | 272,686 | 6,130,547 | 560,933 | 5,569,613 | | |
| 2021 | 501,718 | 0.55 | 277,841 | 5,852,706 | 571,536 | 5,281,170 | | |
| 2022 | 511,202 | 0.55 | 283,093 | 5,569,613 | 582,340 | 4,987,273 | | |
| 2023 | 520,866 | 0.55 | 288,444 | 5,281,170 | 592,937 | 4,688,232 | | |
| 2024 | 530,711 | 0.55 | 293,896 | 4,987,273 | 602,908 | 4,384,365 | | |
| 2025 | 540,002 | 0.55 | 299,041 | 4,688,232 | 612,637 | 4,075,595 | | |
| 2026 | 548,716 557,574 | 0.55 | 303,867 | 4,384,365 | 622,523 | 3,761,842 | | |
| 2027 2028 | 557,571 | 0.55 | 308,770 | 4,075,595 | 632,569 | 3,443,026 | | |
| | 566,568 | 0.55 | 313,753 | 3,761,842 | 642,778 | 3,119,064 | | |
| 2029 | 575,712 | 0.55 | 318,816 | 3,443,026 | 653,151 | 2,789,875 | | |
| 2030 2031 | 585,002 | 0.55 | 323,961 | 3,119,064 | 663,691 | 2,455,373 | | |
| 2031 | 594,443 604,036 | 0.55 0.55 | 329,189 | 2,789,875 | 674,402 | 2,115,473 | | |
| 2032 | 613,784 | 0.55 | 334,502 | 2,455,373 | 685,285 | 1,770,088 | | |
| 2033 | 623,689 | 0.55 | 339,900 | 2,115,473 | 696,344 | 1,419,129 | | |
| 2035 | 633,754 | 0.55 | 345,385 | 1,770,088 | 707,582 | 1,062,506 | | |
| 2036 | 643,982 | 0.55 | 350,959 | 1,419,129 | 719,001 | 700,128 | | |
| 2037 | 654,374 | 0.55 | 356,623 | 1,062,506 | 730,604 | 331,902 | | |
| 2038 | 664,934 | 0.55 | 362,378 368,226 | 700,128 331,902 | 742,394 | (42,266) | | |
| 2039 | 675,665 | 0.55 | 368,226 374 168 | | N/A | N/A | | |
| 2000 | 070,000 | 0.00 | 374,168 | (42,266) | N/A | N/A | | |

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 15, 2010

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, 2010, prepared by Collier County Comprehensive Planning Section. 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 2039 projected based on average percentage increase for FY 2026 FY 2029 (1.61%).
- 3. <u>Tons Per Capita Disposal Rate</u> for FY 2000 FY 2010 is calculated by dividing the actual Annual Tons Disposed (column 4) by the Peak Population (column 2). FY 2011 forward is the average Tons Per Capita Disposal Rate (column 3) of FY 2008, FY 2009, and FY 2010.
- 4. <u>Annual Tons Disposed</u> for FY 2000 FY 2009 are actual tonnage amounts buried at the Collier County Landfill. FY 2010 reflects the projected tons disposed from the current year forecast. FY 2011 forward are derived from Peak Population (column 2) multiplied by the Tons Per Capita Disposal Rate (column 3).
- 5. <u>Lined Cell Capacity Balance (tons)</u> 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-8.

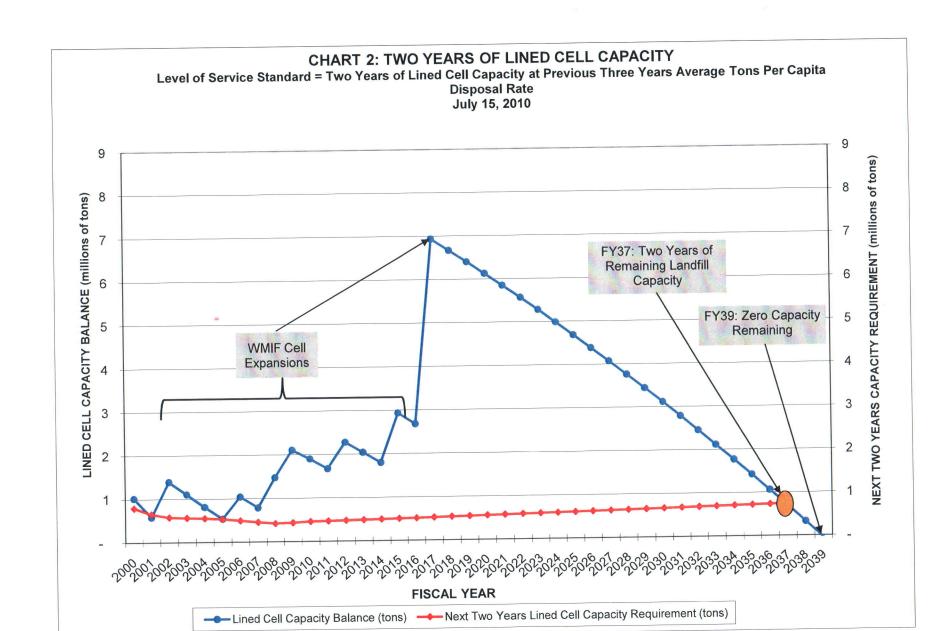
| Fiscal | New | Description | Source of Information |
|--------|-----------|--|---|
| Year | Capacity | | |
| | (tons) | | |
| 2002 | 1,173,575 | Lined Cell Expansion | Complete. |
| 2006 | 911,250 | Lined Cell Expansion | Complete. |
| 2008 | 930,000 | Contracted disposal | June 12, 2001 Disposal Capacity |
| | | capacity at Okeechobee | Agreement. |
| 2009 | 845,250 | Lined Cell Expansion | Complete. |
| 2012 | 836,250 | Lined Cell Expansion | Waste Management, Inc. of Florida (WMIF) 5-year Cell Development Schedule dated 06/15/10. |
| 2015 | 1,380,000 | Lined Cell Expansion | WMIF 5-year Cell Development Schedule dated 06/15/10. |
| 2017 | 4,508,046 | 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 01-29-10, 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-8.

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 15, 2010

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



CHANGES FROM 2009 AUIR

July 15, 2010

| 2010 AUIR Column Number and Category | 2009 AUIR | 2010 AUIR | Reason for Change |
|--|----------------------------------|----------------------------------|--|
| BOTTOM LINE: Zero Disposal (airspace) Capacity | FY39 | FY39 | No change. |
| (2) Peak Population | FY10: 401,804 | FY10: 404,032 | The Collier County Peak Population Projections increased from previous year. |
| (3) Tons Per Capita Disposal Rate | FY11: 0.59 tons/ capita/yr | FY11: 0.55 tons/ capita/yr | Increased recycling lowered the three previous years' average Tons Per Capita Disposal Rate. |
| (4) Annual Tons Disposed | FY11: 240,727 tons | FY11: 227,893 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 |
| (5) Total Landfill Capacity Balance, Table 1 | FY08 and forward | FY09 and forward | The 2010 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 | FY08 and forward | FY09 and forward | The 2010 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. |

Capital Improvement Element Amendment Submittal "Exhibit A" & "Exhibit H"

81

EXHIBIT "A" COLLIER COUNTY SCHEDULE OF CAPITAL IMPROVEMENTS FISCAL YEARS 2011-2015

| SOLID WASTE | DISPOSAL FACILITIES PROJECTS | | | | | | | | |
|-------------|-------------------------------------|--------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | CONSTRUCTION | \$ AMOUNT |
| CIE# | PROJECT | NOTES | SCHEDULE NOTES | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | TOTAL |
| | SOLID WASTE DISPOSAL FACILITIES PRO | DJECT TOTALS | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

| REVENUE KEY - REVENUE SOURCE | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | TOTAL |
|------------------------------|---------|---------|---------|---------|---------|-------|
| REVENUE TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

* 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 sping fees. By contract under the LOA, WMIF will construct any future required cells. Landfill cells vary in size and disposal capacity.

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.

APPENDIX H FUTURE COSTS AND REVENUES BY TYPE OF PUBLIC FACILITY FISCAL YEARS 2016-2020

| SOLID WASTE PROJECTS | | | | | | | | | |
|----------------------|----------------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| | | CONSTRUCTION | \$ AMOUNT | |
| CIE# | PROJECT | SCHEDULE NOTES | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | TOTAL | |
| | SOLID WASTE PROJECT TOTALS | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |

| REVENUE KEY - REVENUE SOURCE | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | TOTAL |
|------------------------------|---------|---------|---------|---------|---------|-------|
| REVENUE TOTAL | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

* 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.

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.