

POPULATION GROWTH AND PROJECTED WASTE STREAM

Population Growth:

Henderson County, located in the south west portion of North Carolina, encompasses an area of approximately 375.1 square miles with a total estimated population of 102,412 persons as of July 2007. The County is bordered on the north by Buncombe County; on the south by the State of South Carolina; on the southeast by Polk County; on the northeast by Rutherford County; and on the west by Transylvania County. Interstate 26 and US Route 25 and 74 run generally north-south through the center of the County and US Route 64 traverses generally east-west through the northern half of the County. The County seat is located in the City of Hendersonville which is centrally located in the County just west of Interstate 26 and encompasses approximately 6.91 square miles. The County also includes four additional incorporated local government entities. The Town of Mills River, located in the northwestern portion of the County encompasses approximately 22.5 square miles of incorporated area. The Town of Fletcher is located in the north central portion of the County bordering on Buncombe County. The Town of Fletcher incorporates approximately 6.1 square miles. The Village of Flat Rock, located just south of the City of Hendersonville encompasses approximately 8.13 square miles. The Town of Laurel Park, located just west of the City of Hendersonville, incorporates approximately 2.87 square miles.

Henderson County is a dynamic location with a modest potential for growth as defined by the State Demographics Branch of the Office of State Budget and Management. The County has seen and projected to see a generally steady rate of growth over the next twenty years. In 1990, the County had a population estimated to be approximately 69,747 persons. By 2000, the population had increased to 89,672 persons for an average annual growth rate of approximately 2.54% per annum. By July 2007, the population was estimated to be 102,142 persons at an average annual growth rate of approximately 1.88% per annum from 2000 to 2007. The average annual growth rate of 1.88% per year is projected to remain constant through 2010 with an estimated population at that time of approximately 108,036 persons. Between 2010 and 2020, the average annual growth rate is projected to slow slightly to approximately 1.58% per annum. The projected population for the year 2020 is estimated to be approximately 126,430 persons. For the period 2020 through 2030, the average annual growth rate is projected to be approximately 1.36% per annum. By 2030, the County's projected population is estimated to be approximately 144,714 persons. The State Demographics Branch of the Office of State Budget and Management's past and projected population estimates are included in Appendix E. The historical populations from 1990 through 2007 in addition to the projected populations for 2008 through 2030 are summarized below in Table E.

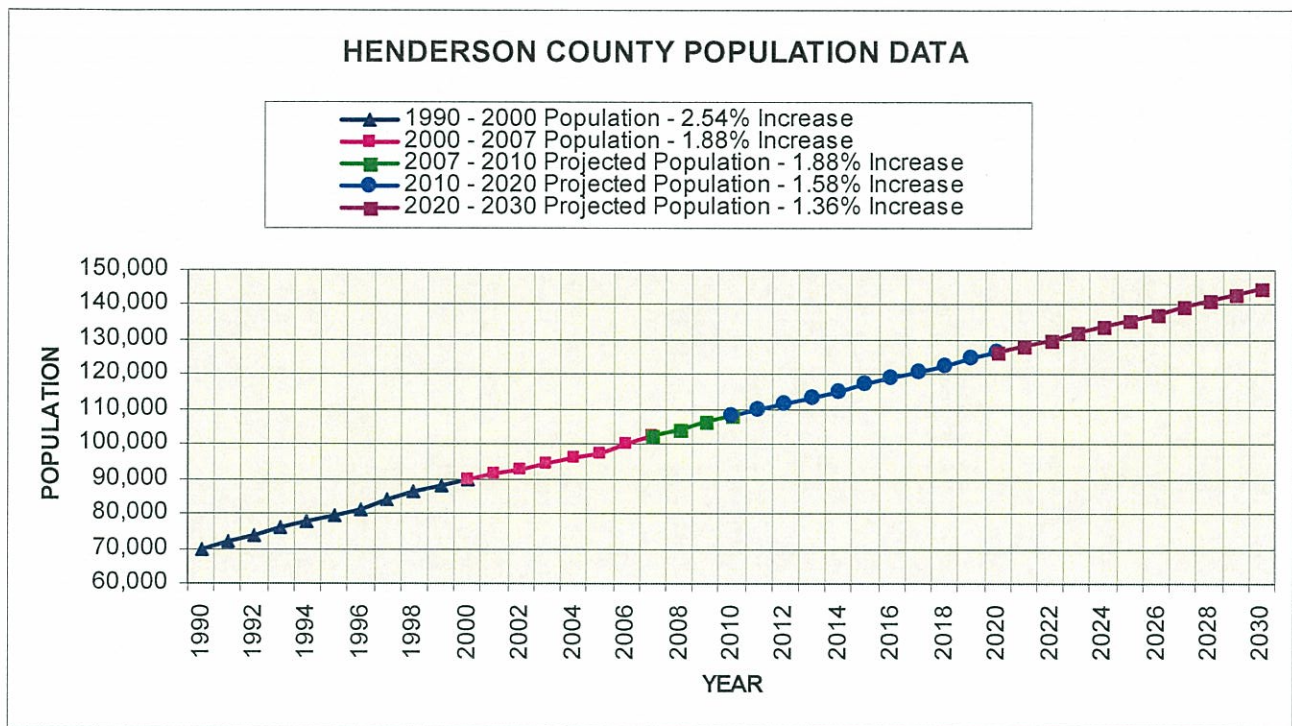
Table 10: Past and Projected Annual Population Growth

Calendar Year	Population ¹	Calendar Year	Population ¹
1990	69,747	2011	109,852
1991	72,076	2012	111,669
1992	73,787	2013	113,485
1993	75,771	2014	115,302
1994	77,891	2015	117,129
1995	79,569	2016	118,990
1996	81,361	2017	120,850
1997	84,058	2018	122,711
1998	86,252	2019	124,571
1999	87,985	2020	126,430
2000	89,672	2021	128,285
2001	91,417	2022	130,141
2002	92,826	2023	131,996
2003	94,485	2024	133,853
2004	95,980	2025	135,718
2005	97,466	2026	137,612
2006	99,932	2027	139,506
2007	102,142	2028	141,400
2008	104,293	2029	143,294
2009	106,214	2030	144,714
2010	108,036		

Notes:

1. Population totals and projections based on data provided by NC State Demographics office.
2. 1990-2000 population increase was 2.54% per year.
3. 2000-2007 population increase was 1.88% per year.
4. 2007-2010 population increase is projected at 1.88% per year
5. 2010-2020 population increase is projected at 1.58% per year.
6. 2020-2030 population increase is projected at 1.36% per year.

The following graphical depiction of the data summarized in Table 10: Past and Projected Population Growth, illustrates the relatively steady growth that Henderson County has experienced and is projected to anticipate over the next twenty years:



In April 1990, the population of the City of Hendersonville was estimated to be approximately 7,284 persons and by April of 2000, the population had increased to approximately 10,569 persons for an increase of 45.1%. By July 2006, the population had increased to 12,499 persons for an increase of 18.3% over the six year period. In July 2007, the City of Hendersonville’s population was estimated to be approximately 12,747 for a 2.0% increase since July 2006. The 2006 -2007 increase in population is generally in line with the projected increase of 1.88% for the County as a whole.

The Town of Mills River was incorporated in June 2003 with an estimated population of approximately 5,965 persons. By April 2006, the population had increased to an estimated 6,290 persons for an increase of approximately 5.5% since 2003. In July 2007, the population of the Town of Mills River was estimated to be 6,334 persons for an approximate increase of 1.0% since July 2006. The 2006-2007 population increase is approximately 0.88% below the projected County wide population increase of 1.88% for the same period.

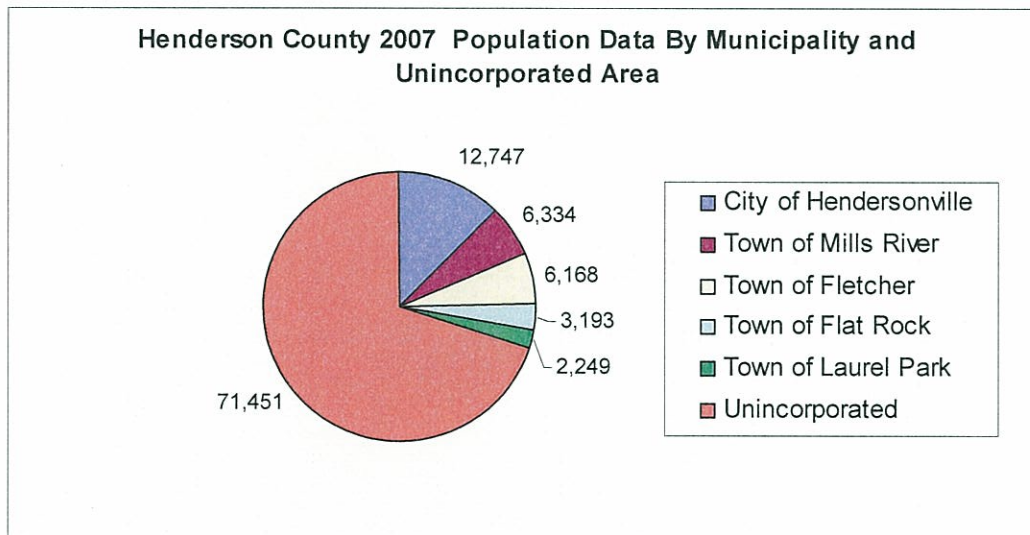
In April 1990, the Town of Fletcher had an estimated population of 2,787 persons. By April 2000, the estimated population had increased to 4,185 persons for an increase of approximately 50.2%. The July 2006 population was estimated to be 5,343 persons for a 27.7% increase since April 2000. The Town of Fletcher’s July 2007 population was estimated to be 6,168 persons for a 15.4% increase since July 2006. The 2006-2007 increase in population exceeds the projected County wide increase of approximately 1.88%. This significant increase

relative to the overall County percent population increase could be attributed to the town's close proximity to the transportation network allowing for easy access to the metropolitan areas associated with neighboring Buncombe County to the north and Hendersonville to the south.

The Town of Flat Rock, located just south of the City of Hendersonville, had an estimated population in April 1990 of 1,619 persons. By April 2000, the population had increased approximately 58.4% to 2,565 persons. The population increased approximately 18.2% between April 2000 and July 2006 to an estimated population of 3,031 persons. In July 2007, the Town of Flat Rock's population was estimated to be 3,193 persons for an approximate 3.6% increase since July 2006. The 2006-2007 increase in population is approximately twice the projected increase of 1.88% for the County as a whole. This increase over the County's projected population increase rate could be attributed to the Town's close proximity to the City of Hendersonville's metropolitan area.

In April 1990, the Town of Laurel Park had an estimated population of 1,322 persons. By April 2000, the estimated population had increased to 2,017 persons for an increase of approximately 52.6%. The July 2006 population was estimated to be 2,229 persons for a 10.5% increase since April 2000. In July 2007, the Town of Laurel Park's population was estimated to be 2,249 persons for an approximate increase of 1.0%. The 2006-2007 population increase is approximately 0.88% below the projected County wide population increase of 1.88% for the same period.

The following is a graphical illustration of the 2007 estimated population of Henderson County (102,142 persons) depicting the populations of the various Cities/Towns and the unincorporated area of the County:



The State Demographics Branch of the Office of State Budget and Management's 2006 and 2007 population estimates for the City of Hendersonville, the Town of Mills River, the Town of Fletcher, the Village of Flat Rock and the Town of Laurel Park are included in Appendix E.

In summary, Henderson County is projected to see an average annual increase in population in the range of approximately 1.88% for the period 2008 through 2010. For the period 2010 through 2020 the County is projected to see an average annual growth rate in the range of 1.58% per annum. Population growth is projected to increase at an average annual rate of 1.36% for the period 2020 through 2030. Associated with this growth should be an increase in the volume of waste and recycle material required to be processed and/or disposed of by the Solid Waste Division. The projected average percent annual increase in waste produced within the County should generally correlate with the projected percent population increases on a County wide basis. However, recent economic concerns appear to have and may continue to have an effect on the volume of waste generated by the citizen's of the County.

Per Capita Disposal Rates:

Calculation of per capita disposal rates for the waste collection scenario such as presently in place in Henderson County is somewhat difficult. This is due in part to the fact that there is no County wide collection operation or policy governing where the waste will be processed and/or disposed. Basically, the commercial haulers and/or citizens have the option on where to take the waste for processing whether it is the County's transfer station or a facility located in a different county. A specific example is the municipal waste collected by the Town of Fletcher. This waste is transported out of the County for processing and therefore is not included tonnage of waste processed through the Henderson County Transfer Station. Some commercially collected waste, especially along the areas bordering neighboring counties may be transported out of the County for processing. Even under these scenarios the estimated per capita disposal rate for the county is in general correlation with the 4.60-4.62 pounds per capita daily disposal rate as published by the Environmental Protection Agency (EPA).

For calendar year 2006, the County averaged approximately 5,828 tons of waste per month being processed through the transfer station for disposal off site. Assuming all waste generated within the County comes to the transfer station except the Town of Fletcher the population contributing to the waste stream can be estimated to be approximately 94,589 persons (2006 estimated County population of 99,932 persons – Town of Fletcher at 5,343 persons = 94,589 persons contributing to the waste stream). Based on this scenario, the per capita disposal rate is estimated to be approximately 4.05± pounds of municipal waste per person per day. For calendar year 2007, the per capita disposal rate was estimated to be approximately 4.11± pounds per person per day. This was calculated assuming a total County population contributing to the waste stream of approximately 95,974 persons (2007 estimated County population of 102,142 persons - Town of Fletcher at 6,168 persons = 95,974 persons contributing to the waste stream) and an average monthly tonnage of waste processed through the transfer station of approximately 6,002 tons per month. During the first ten (10) months of 2008, the County realized a decrease in the amount of municipal waste processed through the transfer station for disposal off site.

This same scenario has been seen by other locations and may be directly attributable to the downturn in the overall economy. The County has averaged only approximately 5,395 tons of municipal waste processed through the transfer station per month. With an estimated County population contributing to the waste stream of approximately 97,778 persons (total County population less the Town of Fletcher) the per capita disposal rate is estimated to be approximately 3.63 pounds per person per day. This is approximately one (1) pound per day per person less than the EPA's national average of approximately 4.60-4.62 pounds per capita. This lower per capita disposal rate trend may continue until such time as the economy begins to rebound from its present downturn. The following Table summarizes the estimated per capita disposal rates for the County for calendar years 2006 through 2008:

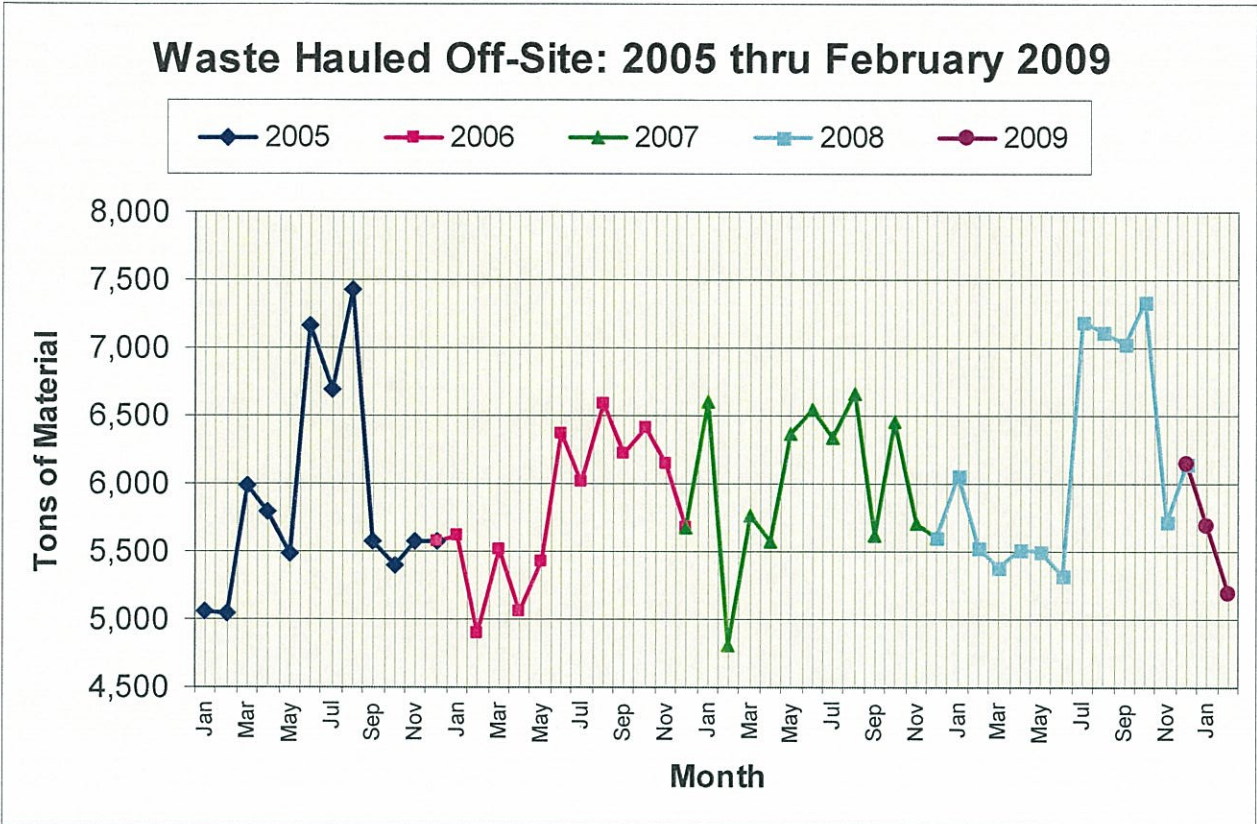
Table 11: Estimated Per Capita Disposal Rates

Calendar Year	Average Monthly Municipal Waste Disposal Rate (tons)	Assumed Contributing Population (persons)	Estimated Per Capita Disposal Rate (lbs./person/day)
2006	5,828	94,589	4.05
2007	6,002	95,974	4.11
2008*	5,395	97,778	3.63

* First ten (10) months of calendar year 2008

Projected Waste Stream:

The fluctuations in the estimated per capita disposal rate for calendar year 2006 through 2008 coupled with the difficulty in determining how much waste is actually generated within the County, but processed for disposal outside the County; render the per capita disposal rate a relatively ineffective means of projecting the County's future waste volumes. In order to project the anticipated tonnage the facility should process in the future, a review of the general trend of waste hauled off site for disposal was conducted. The review depicted a general increase in the tonnage of waste processed through the transfer station for calendar year 2005 through the first six months of 2006. From the middle of calendar year 2006 through the middle of calendar year 2007 the waste stream remained relatively steady. However, since the middle of calendar year 2007, the tonnage of waste processed through the transfer station has been in a general declining pattern which has continued into the first two months of calendar year 2009. The following graph depicts the tonnage of waste recorded as hauled off site for disposal for calendar year 2005 through February 2009.



The sudden increase in the tonnage of waste hauled off site for disposal for the month of July 2008 and the subsequent months was attributable to the closure of the C&D Landfill. The construction and demolition waste is now included in the waste stream that must now be hauled off site for disposal. Even with the inclusion of the construction and demolition waste stream, the facility has experienced an approximate 2,000 ton per month decrease in tonnage shipped off site for disposal since October 2008.

Calendar Year Waste Projections:

In order to determine a base tonnage from which to project future anticipated waste streams, a comparison of the tonnages processed for the period October 2007 through February 2008 (38,014± tons) were compared to the same period covering October 2008 through February 2009 (30,091± tons). Over the comparable periods, the tonnage of waste processed through the facility decreased approximately 7,923 tons or approximately 20.8%. The average monthly tonnage for the period October 2007 through February 2008 was approximately 7,603 tons per month. For the period October 2008 through February 2009, the average monthly tonnage was approximately 6,018 tons per month for a decrease of approximately 1,585 tons per month. It was decided through numerous discussions with the County staff to use the average tonnage processed through the transfer station (6,018± tons per month) for the base tonnage from which the future waste tonnage projections would be based.

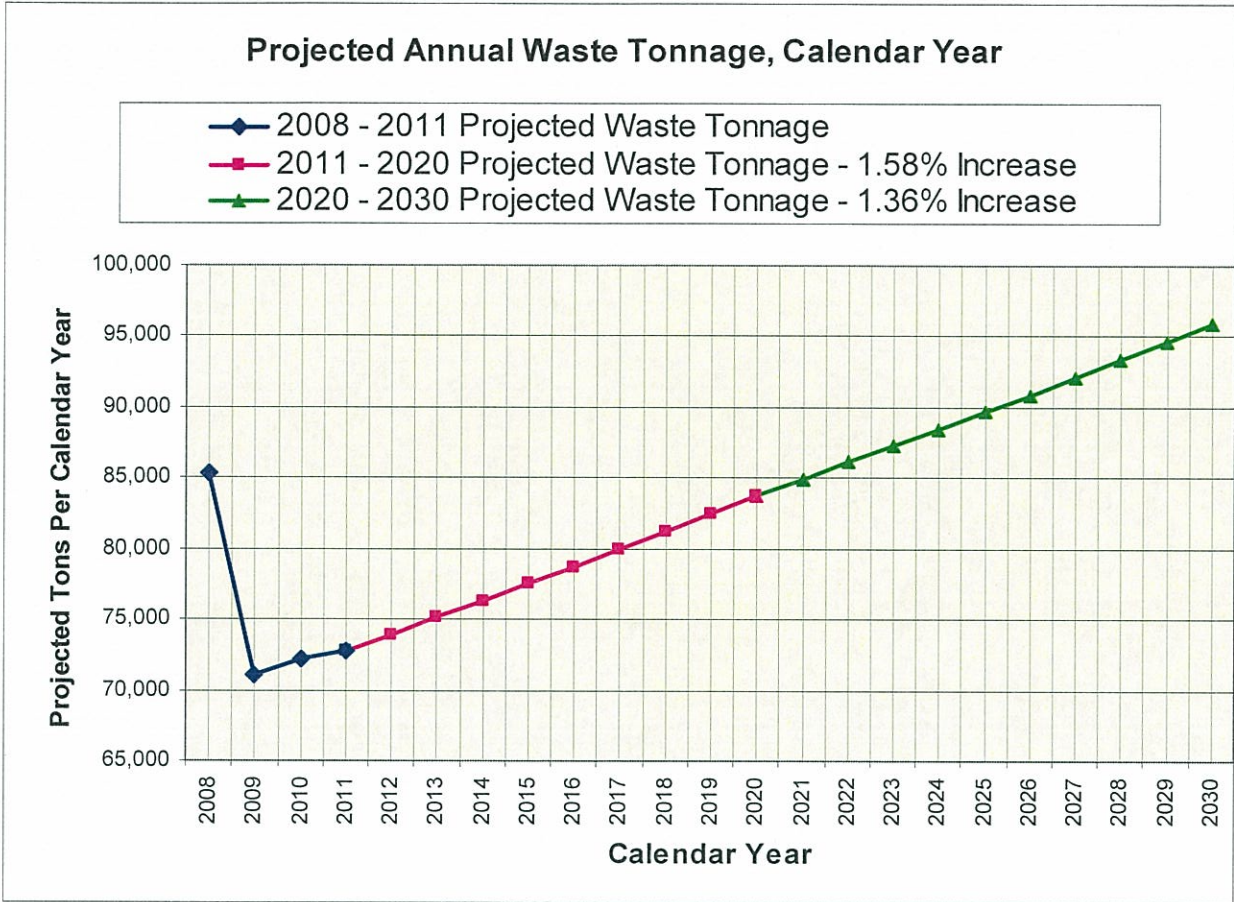
Given the fact the facility has experienced a general decline in the tonnage of waste processed through the facility since the middle of calendar year 2007 and the general state of the nations economy, it was determined to hold this base tonnage level for the remainder of calendar year 2009, all of calendar year 2010 and the first six months of calendar year 2011. Beginning in July 2011, the assumed monthly tonnage would be increased 1.58%, generally following the same growth pattern as projected by the State Demographic Branch of the Office of State Budget and Management relative to population growth. The assumed monthly tonnage for the period July 2011 through December 2001 would be approximately 6,113± tons per month. The total tonnage processed through the transfer station for calendar year 2011 would be increased by 1.58% per year through calendar year 2020. For the projection period 2021 through 2030, the increase in yearly tonnage processed through the transfer station would increase at an annual rate of 1.36% per year. These projected increases coincide with the general growth pattern projected by the State Demographic Branch of the Office of State Budget and Management for the same time periods. The following table summarizes the calendar year, the anticipated annual percent increase in annual tonnage and the projected tonnage the County should anticipate processing for disposal:

Table 12: Projected Annual Waste Tonnage, Calendar Year

Calendar Year	Projected Percent Growth (%)	Projected Tonnage (tons)	Calendar Year	Projected Percent Growth (%)	Projected Tonnage (tons)
2008 ⁽¹⁾		85,300	2020	1.58%	83,817
2009 ⁽²⁾		71,062	2021	1.36%	84,957
2010 ⁽³⁾		72,218	2022	1.36%	86,113
2011 ⁽⁴⁾		72,788	2023	1.36%	87,284
2012	1.58%	73,938	2024	1.36%	88,471
2013	1.58%	75,106	2025	1.36%	89,674
2014	1.58%	76,293	2026	1.36%	90,894
2015	1.58%	77,498	2027	1.36%	92,130
2016	1.58%	78,723	2028	1.36%	93,383
2017	1.58%	79,967	2029	1.36%	94,653
2018	1.58%	81,230	2030	1.36%	95,940
2019	1.58%	82,514			

1. Actual tonnage handled – MSW + C&D for the calendar year.
2. Tonnages for January (5,692 tons) and February (5,189) were held with March through December projected at 6,018 tons per month.
3. Calendar year 2010 was projected at 6,018 tons per month.
4. The first six months of calendar year 2011 were projected at 6,018 tons per month and the last six months were projected at 6,113 tons per month or a 1.58% increase over the projected monthly tonnage for the first six months.

The following graphical depiction of the data summarized in Table 12: Projected Annual Waste Tonnage, Calendar Year, illustrates the anticipated waste stream that should be processed through the transfer station for disposal at an off-site location.



Fiscal Year Waste Projections:

County annual operating budgets are based on a fiscal year beginning July 1st and ending June 30th of the following year. For the purposes of preparing the financial assessment and tipping fee rate projections for the County’s solid waste program, the projected tonnage of waste processed through the transfer station for FY 2009 (July 1, 2008 – June 30, 2009) was estimated to be approximately 76,522 tons. Based on the prior waste tonnage assessment, it was determined that a base monthly tonnage of approximately 6,018± tons of waste per month would be the base tonnage from which future waste tonnage projections would be based for the financial planning period covering FY 2010 through FY 2019. Given the present state of the economy, it was agreed upon to hold this monthly base tonnage level through FY 2011 (June 30, 2011) for financial planning purposes. Basically, the tonnage of waste processed through the transfer facility for FY 2010 (July 1, 2009 – June 30, 2010) and FY 2011 (July 1, 2010 – June 30, 2011) would be held at approximately 72,216± tons per year. For each fiscal year, beginning in FY 2012, through the end of the financial planning period (FY 2019), the anticipated waste tonnage processed through the transfer station would increase in accordance with the population growth patterns as projected by the State Demographic Branch of the Office of State Budget and Management. For the remainder of the financial planning period (FY 2012 through FY 2019), the County’s population is projected to increase approximately 1.58% per year. The following

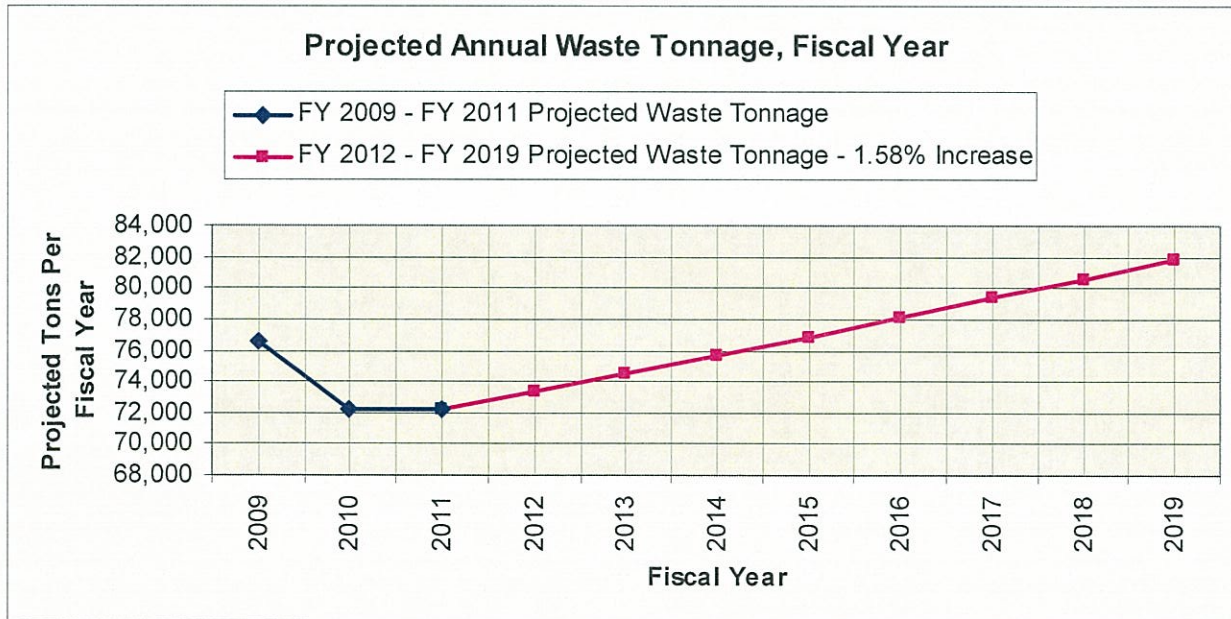
table summarizes the projected waste tonnages by fiscal year, beginning in FY 2009 through the financial planning period covering FY 2010 through FY 2019:

Table 13: Projected Annual Waste Tonnage, Fiscal Year

Fiscal Year	Projected Percent Growth (%)	Projected Tonnage (tons)
2009 ⁽¹⁾		76,522
2010 ⁽²⁾		72,216
2011 ⁽²⁾		72,216
2012	1.58%	73,357
2013	1.58%	74,516
2014	1.58%	75,693
2015	1.58%	76,889
2016	1.58%	78,104
2017	1.58%	79,338
2018	1.58%	80,591
2019	1.58%	81,865

1. Tonnage projected for FY 2009.
2. Projected tonnage held constant at 6,018 tons per month.

The following graphical depiction of the data summarized in Table 13: Projected Annual Waste Tonnage, Fiscal Year, illustrates the projected waste stream by fiscal year that should be processed through the transfer station through the end of the financial planning period (FY 2019).



Summary:

Population growth projections for the County were assumed to generally following the growth patterns as projected by the State Demographics Branch of the Office of State Budget and Management. In general, the County could expect to see the population increase at an annual rate of approximately 1.88% through 2010 and 1.58% per year for the period 2010 through 2020. For the period 2020 through 2030, the projected annual population increase is anticipated to be approximately 1.36% per year.

Through numerous discussions with County staff coupled with the analysis of past and present waste disposal patterns, it was decided to hold the base line tonnage, disposed of off-site through the transfer station, at approximately 6,018 tons per month through June 2011. In other words, the tonnage disposed of off-site would be held at approximately 72,218± tons per fiscal year for FY 2010 and FY 2011. Beginning in July 2011, the monthly tonnage disposed of off-site was assumed to increase in general correlation with the projected population increases as published by the State Demographics Branch of the Office of State Budget and Management.