

**Fiscal Impact Assessment:
*Jasper County, South Carolina,
Hardeeville, South Carolina, and
Ridgeland, South Carolina***

**A Report To The
County Council of Jasper County,
City Council of Hardeeville, and
Town Council of Ridgeland**

By

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INTRODUCTION

Jasper County is poised to add more than 60,000 residential units in the next 20 years. Much of this growth is projected to occur in the vicinity of the City of Hardeeville. However, other growth areas along the I-95 corridor will be impacted. Six large tracts of land have either begun the development process or are considered for large scale residential and commercial development. These tracts are contiguous to the City of Hardeeville and will most likely be annexed into the city.

Annexation and development of the six tracts and the associated growth will increase Jasper County and the municipalities' expenditures for providing services. Future development will also increase the County's and municipalities' future revenues from property taxes and other sources. If the revenue isn't sufficient to cover the costs of increased demand for public services then one or a combination of three options must be pursued: 1) taxes can be raised, 2) new sources of revenue can be found, or 3) service levels can be reduced. Growth – particularly rapid growth – also strains the capacity of existing physical infrastructure such as roads, highways and schools.

This report, prepared at the request of the Jasper County Council, presents an estimate of the fiscal impact of the projected new development on Jasper County government and the two municipal governments in the county – the City of Hardeeville and the Town of Ridgeland. The report is organized into ten sections. The current section introduces the report, and discusses the costs of population growth. The second section provides an overview of the fiscal impact analysis and presents the population projection that is used as the basis of the analysis. The third section presents the results of the analysis for Jasper County. The fourth and fifth sections present results for the City of Hardeeville and the Town of Ridgeland, respectively. The sixth section briefly discusses the differences in fiscal impact across the three government units. The seventh section briefly discusses the cost of public services and infrastructure that aren't addressed in our analysis. The eighth section outlines options for alternative revenue sources. The ninth section discusses growth management options. The final section concludes the report. Appendices contain information on key assumptions and other information underlying the estimates.¹

THE COSTS OF POPULATION GROWTH

Until the last few decades, population growth was generally considered to have a positive impact upon communities. The benefits of growth – increased tax base, jobs and economic opportunities – were the primary focus. But as the pace of growth has

¹ Appendix A, which describes the key assumptions and methodology, is included in this report. Appendix B, which contains projection details, is available as a separate document.

accelerated over the last 30 years, the research focus has expanded to include the costs of growth. Communities can generally accommodate the cost of increased service demands resulting from a 1-2 percent annual growth rate. However, the perception of growth changes when rapid growth begins to impede a community's capacity to provide essential services such as roads, recreation facilities, and schools. Clancy Mullen notes that "Rapid growth spurts in excess of three percent are much more likely to result in traffic congestion, overcrowded schools and rising tax and utility bills."²

A large body of literature has been developed on the costs to expand government services and infrastructure to serve new residents and businesses.³ Other studies have focused upon environmental issues associated with growth (e.g., excessive water consumption, air pollution, loss of wildlife habitat, and loss of farmland),⁴ transportation and commuting costs,⁵ the social consequences of suburban growth,⁶ the impact of sprawl,⁷ and techniques to reduce public and private costs through development practices, i.e., "Smart Growth".⁸

Much of the research focused on the fiscal costs and benefits of growth has concluded that residential development does not pay for itself. The American Farmland Trust (AFT) collected studies across the nation and determined that on average, residential development requires \$1.16 in community services for every \$1 of tax revenue it contributes.⁹ In Culpepper County, Virginia, researchers found that residential

² Clancy Mullen, *The Cost of Growth: A Brief Overview* (Austin, Texas: Duncan Associates, March 2002).

³ See, for example, publications on this topic available from the following organizations: the Lincoln Institute for Land Policy, <<http://www.lincolnst.edu/index-high.asp>>, the Northeast Midwest Institute <<http://www.nemw.org/reports.htm#smartgrowth>>, and the National Center for Smart Growth Research and Education <<http://www.smartgrowth.umd.edu>>.

⁴ See, for example, publications on this topic available from the following organizations: the American Farmland Trust <<http://www.farmland.org>>, the Farm Foundation <<http://www.farmfoundation.org>>, and the U.S. Environmental Protection Agency <<http://www.epa.gov/livability>>.

⁵ See, for example, publications on this topic available from the American Planning Association <<http://www.planning.org>>.

⁶ Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000). See also publications on this topic available from the American Planning Association <<http://www.planning.org>>.

⁷ <www.planning.org>, <www.sierraclub.org>, William Coyne, *The Fiscal Cost of Sprawl: How Sprawl Contributes to Local Governments' Budget Woe*, (Denver, CO: Environment Colorado Research and Policy Center, December 2003). See also publications on this topic available from the American Planning Association <<http://www.planning.org>> and the Sierra Club <<http://www.sierraclub.org>>.

⁸ Dwight Young, *Alternatives to Sprawl* (Cambridge, MA: Lincoln Institute for Land Policy, 1995). See notes 5, 6, and 7 and publications on this issue at the Brookings Institution <<http://www.brookings.edu>>.

⁹ American Farmland Trust, *Fact Sheet: Cost of Community Services Studies*, (Washington, D.C.: American Farmland Trust, November 2002), p. 2.

development costs \$1.25 in county services for every \$1 of revenue.¹⁰ A 2002 University of Georgia study of four communities found that residential development required a range of \$1.24 to \$2.26 in community services for every \$1 of tax revenue generated.¹¹ In 2005, the principle researches of this report found that residential development in Lancaster County, South Carolina required \$1.23 for every \$1.00 it increased in revenue (excluding schools).¹² Conclusions such as those above are refuted by the homebuilding industry, which argues that these analyses do not capture the associated taxes and dollars spent on home furnishings and other goods and services.¹³ However, most research concludes that residential development, especially mobile homes, puts a greater strain on public services than commercial or industrial development and does not return adequate revenue to support it.

Local governments can no longer assume that population growth alone will bring them the revenues they need. Without corresponding growth in the non-residential tax base, local governments may not have sufficient revenues to cover the cost of new residential service demands and long term infrastructure needs.¹⁴ Furthermore, the heavier reliance of bedroom communities on residential property tax revenue to support government spending can contribute to fiscal shortfalls, especially in the anti-tax climate that is common today in South Carolina and many other parts of the country. This fiscal imbalance has caused many states and communities to reassess how they grow and who will be responsible for the costs associated with growth.

¹⁰ Henry L. Diamond and Patrick F. Noonan, *Land Use in America* (Cambridge, MA: Lincoln Institute for Land Policy, 1996), p. 35.

¹¹ University of Georgia, *The Economic Costs of Development for Local Governments* (Athens, GA: University of Georgia, January 2002).

¹² William E. Molnar and Charles Taylor, *Residential Fiscal Impact Assessment, Lancaster County, South Carolina* (Clemson, SC: Clemson University, January 2005).

¹³ National Association of Home Builders, *Smart Growth, Smart Choices* (Washington, DC: National Association of Home Builders, 2002), <http://www.nahb.org/publication_details.aspx?sectionID=702&publicationID=15>.

¹⁴ Gerrit Knaap and Terry Moore, *Land Supply and Infrastructure Capacity Monitoring for Smart Urban Growth*, Lincoln Institute for Land Policy Working Paper WP00GK1 (Cambridge, MA: Lincoln Institute for Land Policy, 2000), <<http://www.lincolninst.edu/pubs/pub-detail.asp?id=96>>.

FISCAL IMPACT ANALYSIS - OVERVIEW

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the increases in local government expenditures and revenues associated with projected population growth resulting from residential development in Jasper County. We performed similar analyses for Jasper County government and the municipal governments of Ridgeland and Hardeeville. This section of the report presents the population projection that is used as the basis of the three analyses and briefly describes our methodology for estimating population-related expenditure and revenue increases. The results of the analysis for each local government are presented in separate sections following this section. Descriptions of the methodology and key assumptions are provided in Appendix A.

POPULATION PROJECTION

Five proposed developments slated for annexation into the Hardeeville city limits constitute a large share of the expected residential development within Jasper County. For the Hardeeville portion of projected county growth we used the same working estimate used by Hardeeville city officials – 50,000 residential units, or 2500 units per year over the twenty-year study period.

Ridgeland municipal officials indicated that they expected up to 1,200 residential units to be constructed over the next five years. We assumed that development within Ridgeland will occur at this same rate – 240 units per year – over the entire twenty-year period.

Jasper County officials indicated that as many as 8,000 additional residential units were planned for the unincorporated areas within Jasper County. We assumed that this development within the unincorporated areas would contribute an additional 400 residential units per year.

The projected populations of Ridgeland, Hardeeville, and the unincorporated areas of Jasper County are presented in Table 1. The projected populations assume an average household size of 2.5 persons.

**Table 1 - Projected Population of Ridgeland, Hardeeville and
Unincorporated Jasper County, 2007-2026**

Year	Ridgeland	Hardeeville	Unincorporated Areas	Total
2007	3,191	8,063	17,556	28,810
2008	3,791	14,313	18,556	36,660
2009	4,391	20,563	19,556	44,510
2010	4,991	26,813	20,556	52,360
2011	5,591	33,063	21,556	60,210
2012	6,191	39,313	22,556	68,060
2013	6,791	45,563	23,556	75,910
2014	7,391	51,813	24,556	83,760
2015	7,991	58,063	25,556	91,610
2016	8,591	64,313	26,556	99,460
2017	9,191	70,563	27,556	107,310
2018	9,791	76,813	28,556	115,160
2019	10,391	83,063	29,556	123,010
2020	10,991	89,313	30,556	130,860
2021	11,591	95,563	31,556	138,710
2022	12,191	101,813	32,556	146,560
2023	12,791	108,063	33,556	154,410
2024	13,391	114,313	34,556	162,260
2025	13,991	120,563	35,556	170,110
2026	14,591	126,813	36,556	177,960

Aside from the larger number of county residents, the growth depicted in Table 1 will change the character of Jasper County. At present almost 80 percent of county residents live within the unincorporated areas of Jasper County. Under this growth scenario, Jasper County will become a more urbanized county with only 20 percent of county residents residing within the unincorporated areas in 2026. Approximately 70 percent of Jasper County residents will reside within the Hardeeville city limits. This growth scenario also results in a county that has different characteristics than the typical large county in present day South Carolina. In the largest South Carolina counties today, most residents – approximately 60 percent – live within unincorporated areas.

However, we feel that the scenario above is realistic given the fact that county and municipal officials in Jasper County have adopted a policy of encouraging growth to occur within the incorporated municipalities.

EXPENDITURE INCREASES

An increase in population leads to increased government expenditures in three ways. First, additional local government employees are needed to provide existing local government services to new residents without decreasing the level of service provided to existing residents. For example, as new areas are developed and the population increases, additional law enforcement officers are needed to patrol the new neighborhoods and to respond to emergency calls. These additional employees not only require increased expenditures on salaries and benefits, but also result in increased operating expenditures for fuel, uniforms, and other supplies needed to conduct departmental activities. Second, a larger population will require increased expenditures for services provided by third parties, such as solid waste disposal. Third, providing services to a larger population often requires capital expenditures for new infrastructure, such as fire stations or parks, and for additional equipment such as fire engines, passenger vehicles, and road repair equipment. Fourth, residents in larger municipalities and counties often desire new government facilities, such as swimming pools, that aren't available in areas with smaller populations.

We classified governmental activities into seven functional categories. We then estimated the increase in government expenditures in each category associated with the residential development projected for Jasper County.

REVENUE INCREASES

An increase in population leads to increased local government revenues in five ways. First, the homes owned or rented by the new residents, as well as the vehicles and other taxable personal property they own, generate additional property tax revenue. Second, the new residents make taxable purchases locally, generating additional local option sales tax (LOST) revenue. Third, the new residents contribute to increases in non-tax revenues, such as fines, fees, and permits. Fourth, the larger population provides a larger market for locally-provided goods and services, which increases local business investment and generates additional property tax revenue. Fifth, the larger population provides a market for a greater variety of local goods and services, which results in greater per capita local purchases and generates additional LOST revenue.

We estimated the increase in government revenues associated with the residential development projected for Jasper County. A large portion of municipal revenue comes from property taxes, particularly those levied on residential property. Consequently, estimates of future revenue are quite sensitive to the assumed average value of future

residential construction. To illustrate the effect of home value on the revenue estimate, we have provided two estimates. The base scenario assumes that new residential construction have an initial average value of \$180,000 per residential unit in the two municipalities and \$120,000 in the unincorporated areas of the county. The value of \$180,000 is based on the minimum value guaranteed in the first development agreement negotiated by the City of Hardeeville. That developer has indicated that actual home values are expected to be in the neighborhood of \$240,000. For that reason we also estimated results for an alternate scenario in which new residential construction is assumed to have an initial value of \$240,000 per residential unit in the municipalities. In the second scenario we assumed that home values would be reduced to \$100,000 in the unincorporated areas. These residence value assumptions of the two scenarios are summarized in Table 2. Other key assumptions are explained in Appendix A.

Table 2 - Average Initial Residential Unit Values, Base and Alternate Scenarios

Location	Percentage of Total Population Growth	Initial Average Residential Unit Value	
		Base Scenario	Alternate Scenario
Ridgeland	7.6%	\$180,000	\$240,000
Hardeeville	79.6%	180,000	240,000
Unincorporated Areas	12.7%	120,000	100,000
Average		\$172,357	\$222,166

The next three sections of the report summarize the results of the fiscal impact analysis for each separate local government. The Jasper County results are presented first, followed by Hardeeville and then Ridgeland. A section comparing the results of these analyses follows the presentation of the individual results.

FISCAL IMPACT ANALYSIS – JASPER COUNTY

KEY FINDINGS

- The magnitude of the fiscal impact of population growth on Jasper County government depends, in large part, on the average value of new residences.
- Under either of two scenarios, population growth is projected to generate sufficient revenue to cover the operating and capital expenditures required to provide county government services to the new residents.
- The county expenditures associated with projected population growth are estimated at \$399,835,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of the expenditure increase is \$393,976,000. This figure is equivalent to \$11,950 per household.
- Under the more conservative base scenario (which assumes an average residence value of approximately \$172,000), the county revenue associated with population growth is estimated at \$1,023,011,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$958,818,000. This figure is equivalent to \$29,082 per household.
- Under the base scenario, the estimated revenue increase exceeds the estimated expenditure increase by \$623,176,000 (in constant 2005 dollars). The present value of this surplus is \$564,842,000. This figure is equivalent to \$17,132 per household.
- Under the alternate scenario (which assumes an average residence value of approximately \$222,000), the county revenue associated with population growth is estimated at \$1,195,963,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$1,125,851,000. This figure is equivalent to \$34,148 per household.
- Under the alternate scenario, the estimated revenue increase exceeds the estimated expenditure increase by \$796,128,000 (in constant 2005 dollars). The present value of this surplus is \$731,875,000. This figure is equivalent to \$22,198 per household.

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the increases in Jasper County government expenditures and revenues associated with population growth projected for the period. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

County activities are classified into seven functional categories. Expenditures within each functional category are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in Appendix A.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of each department within Jasper County government. These expenditures also include payments by Jasper County government to other public or private organizations for the provision of county services. Examples of third party payments include payments for landfill services and appropriations to local fire districts and the regional library system.

Capital Expenditures. These expenditures include the costs of purchasing or constructing new public facilities, such as detention centers or parks, and the cost of vehicles and equipment, such as ambulances and patrol cars.

The estimated increase in expenditures of each type within each functional category is presented in Table 3.

Table 3 – Present Value of Estimated Expenditure Increases by Type and Functional Category, Jasper County, 2007 - 2026

Category	Operating	Capital Improvement	Total
General Administration	\$21,287,000	\$1,266,000	\$22,553,000
Planning and Community Development	992,000	60,000	1,052,000
Tax Administration	9,733,000	1,348,000	11,081,000
Judicial Administration	17,419,000	1,689,000	19,108,000
Public Safety	212,262,000	40,912,000	253,174,000
Public Works	26,410,000	9,885,000	36,296,000
Recreation and Culture	24,772,000	25,938,000	50,711,000
Total	\$312,877,000	\$81,099,000	\$ 393,976,000

EXPENDITURE INCREASES BY FUNCTIONAL CATEGORY

Estimated expenditure increases within each functional category are summarized below. In addition to the expenditure estimates, each category summary includes a brief description of the activities included within the category and a brief list of the added personnel¹⁵ and facilities required to serve the increasing population. Additional estimate details are available in Appendix B.

General Administration. Expenditures in the general administration functional category include those related to operations of the County Council, County Administrator’s office, finance and human resources departments, and vehicle and building maintenance departments. Capital expenditures within the general administration category include those needed to expand office capacity to accommodate the expected increase in staffing level. Increases in general administration expenditures are summarized in Table 4.

¹⁵ The projected personnel additions are estimates based only on projected increases in population. Actual staffing decisions take into account other factors in addition to the size of the local population. Consequently, future staff levels may be higher or lower than the levels projected in this report.

**Table 4 – General Administration, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 12 building maintenance, 7 vehicle maintenance, 6 management information system, 14 finance and accounting, and 1 human resources	\$21,287,000
Capital	Additional office space with associated land	1,266,000
Total		\$22,553,000

Planning and Community Development. Expenditures in the planning and community development functional category include those related to planning, building and zoning, E-911, and economic development. Increases in population will necessitate hiring an additional planner. Capital expenditures within the planning and community development category include those needed to expand office capacity to accommodate the expected increase in staffing level. Increases in planning and community development expenditures are summarized in Table 5.

**Table 5 – Planning and Code Enforcement, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 1 planner	\$992,000
Capital	Additional office space with associated land	60,000
Total		\$1,052,000

Tax Administration. Expenditures in the tax administration functional category include those related to the treasurer, assessor and auditor offices. Increases in population will necessitate hiring additional clerks, supervisors, appraisers, and GIS operators. Capital expenditures within the tax administration category include those needed to expand office capacity to accommodate the expected increase in staffing level. Increases in tax administration expenditures are summarized in Table 6.

Table 6 – Tax Administration, Jasper County, Estimated Expenditure Increase, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 8 tax clerks, 3 treasurer supervisors, 4 appraisers, and 5 GIS operators	\$9,733,000
Capital	Additional office space with associated land; passenger vehicles for appraisers	1,348,000
Total		\$11,081,000

Judicial Administration. Expenditures in the judicial administration functional category include those related to the circuit, probate, and family courts, the Clerk of Court and Coroner’s offices, and the magistrates. Increases in population will necessitate hiring additional clerks, deputy Clerks of Court, magistrates, and solicitors. Capital expenditures within the judicial administration category include those needed to expand office and court capacity to accommodate the expected increase in staffing level. Increases in judicial administration expenditures are summarized in Table 7.

Table 7 – Judicial Administration, Jasper County, Estimated Expenditure Increase, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 magistrates, 5 deputy clerks of court, 12 clerks, and 7 solicitors	\$17,419,000
Capital	Additional office space with associated land	1,689,000
Total		\$19,108,000

Public Safety. Expenditures in the public safety functional category include those related to law enforcement, the county detention center, emergency medical services and emergency dispatch, and fire protection. Increases in population will necessitate hiring additional sworn officers and civilian employees in the Sheriff’s Department. Capital expenditures within the law enforcement subfunction include those needed to expand office capacity to accommodate additional civilian employees and to purchase additional patrol vehicles.

Increases in population will also necessitate the expansion of the county’s detention center. Detention center expansions will be accompanied by the addition of detention officers and supervisors.

A larger population will also require additional emergency medical technicians and dispatchers to take emergency calls from the public. Capital expenditures within the EMS and dispatch subfunction will include those needed to purchase additional ambulances and to expand EMS substation and dispatch center facilities.

A fire/EMS needs assessment completed earlier this year¹⁶ recommends that Jasper County increase the number of full-time firefighters on its staff and decrease its reliance on unpaid volunteers. In this projection we have assumed that the County will respond to increased demand for fire protection services by increasing its appropriations to local fire districts. The fiscal implications of adding full-time firefighters are discussed in the summary of this section.

Increases in public safety expenditures are summarized in Table 8. Summaries for each subfunction are presented in Table 9 through Table 12.

**Table 8 – Public Safety, Summary, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	See Table 9 through Table 12 for details by subfunction	\$212,262,000
Capital	See Table 9 through Table 12 for details by subfunction	40,912,000
Total		\$253,174,000

¹⁶ MGT of America, *Fire/EMS Needs Assessment: Final Report*. (Columbia, SC: MGT of America, 2005).

**Table 9 - Public Safety, Law Enforcement, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 61 patrol officers, 13 investigators, 42 civilian employees, and 1 animal control officer	\$50,109,000
Capital	Additional headquarters space with associated land; patrol vehicles	8,608,000
Total		\$58,716,000

**Table 10 - Public Safety, Detention Center, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 160 detention officers and 20 detention supervisors	\$108,329,000
Capital	Detention Center Detention center expansions	26,717,000
Total		\$135,046,000

**Table 11 – Public Safety, EMS and Dispatch, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 39 EMTs and paramedics; 26 dispatchers	\$40,848,000
Capital	Additional EMS headquarters and substation space with associated land; additional dispatch center space with associated land; ambulances	5,587,000
Total		\$46,436,000

**Table 12 – Public Safety, Fire Protection, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Increased appropriations to local fire districts	\$12,976,000
Capital	None	0
Total		\$12,976,000

Public Works. Expenditures in the public works functional category include those related to road and bridge maintenance, solid waste hauling, and operation of the county’s convenience centers. Increases in population will necessitate hiring additional equipment operators, solid waste drivers, and supervisors. Capital expenditures within the public works category include those needed to expand office capacity and storage space to accommodate the expected increase in staffing levels and the purchase of additional maintenance equipment such as backhoes and dump trucks. Increases in public works expenditures are summarized in Table 13.

**Table 13 – Public Works, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 supervisors, 30 equipment operators, and 14 solid waste drivers	\$26,410,000
Capital	Additional headquarters and storage space with associated land; road maintenance equipment and other rolling stock	9,885,000
Total		\$36,296,000

Recreation and Culture. Expenditures in the recreation and culture functional category include those related to the operation county parks and appropriations to the regional library system. Increases in population will necessitate hiring additional park maintenance workers and program specialists. Capital expenditures within the recreation and culture category include those needed for the purchase of additional park land and maintenance vehicles.

Increases in population will also necessitate the expansion of library facilities within the county. In this projection we have assumed that the County will respond to increased demand for library services by increasing its appropriations to the regional library system. The fiscal implications of expanding library facilities are discussed in the summary of this section. Increases in recreation and culture expenditures are summarized in Table 14.

**Table 14 - Recreation and Culture, Jasper County,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 park maintenance workers and 14 recreation program specialists; increased appropriation to regional library system	\$24,772,000
Capital	Additional park land; park maintenance vehicles	25,938,000
Total		\$50,711,000

SUMMARY OF PERSONNEL ADDITIONS

Our projection indicates that Jasper County will need to increase its personnel from 203 full-time equivalent (FTE) employees¹⁷ to 721 FTE over the period under study – an increase of 518 employees. The expanded staff required to serve a larger population accounts for a large share of the estimated expenditures associated with population growth over the period from 2007 to 2026. Table 15 summarizes the projected annual personnel additions over the entire period.

According to figures from the *2005 Wage and Salary Report* published by the South Carolina Association of Counties, staff ratios among counties with population of 25,000 or less range from 3.6 to 11.0 FTE per 1000 residents. The median staff ratio is 8.1 FTE per 1000; the average is 7.7 FTE per 1000. Table 15 illustrates that Jasper County’s staff ratio is projected to decline from 9.7 to 4.1 FTE per 1000 residents during the study period of 2007 through 2026. The decline in staff ratio reflects the economies of scale available to counties with larger populations.

Jasper County’s projected staff ratio in 2026 is at the lower end of staff ratios for the largest South Carolina counties. According to figures from the *2005 Wage and Salary Report*, staff ratios among counties with population of 100,000 or greater range from 4.0 to 8.6 FTE per 1000 residents. The median staff ratio is 5.0 FTE per 1000; the average is 5.5 FTE per 1000. Because the two Jasper County municipalities are expected to be the primary local service providers for a large portion of new residents, we would expect Jasper County to have a staff ratio in 2026 that is at the lower end of the range.

¹⁷ As reported in S.C. Association of Counties, *2005 Wage and Salary Report* (Columbia SC: S.C. Association of Counties, 2005), < [http://www.sccounties.org/research/ws/2005SalaryReport\(Final\).pdf](http://www.sccounties.org/research/ws/2005SalaryReport(Final).pdf)>. Part-time employees are counted as 0.5 full-time equivalent employee.

Table 15 – Summary of Personnel Additions, Jasper County, 2007-2026

Year	Full Time Equivalent Employees	New Hires	Full-Time Equivalent Employees per 1000 Residents
Current	203	-	9.7
2007	217	14	7.5
2008	222	5	6.1
2009	277	55	6.2
2010	288	11	5.5
2011	303	15	5.0
2012	323	20	4.7
2013	385	62	5.1
2014	396	11	4.7
2015	417	21	4.6
2016	434	17	4.4
2017	454	20	4.2
2018	517	63	4.5
2019	533	16	4.3
2020	555	22	4.2
2021	573	18	4.1
2022	592	19	4.0
2023	658	66	4.3
2024	678	20	4.2
2025	700	22	4.1
2026	721	21	4.1
Total		518	

Almost 70 percent of the projected staff increase occurs in the public safety functional category. Table 16 presents projected staff increases by functional category.

Table 16 - Projected Staff Increases by Functional Category, Jasper County, 2007 - 2026

Category	Staff Increase	Percent of Total Increase
General Administration	41	7.9%
Planning and Community Development	1	0.2%
Tax Administration	20	3.9%
Judicial Administration	28	5.4%
Public Safety	361	69.7%
Public Works	49	9.5%
Recreation and Culture	18	3.5%
Total	518	100.0%

REVENUE INCREASES

Jasper County has three main sources of revenue: property tax, other taxes, and non-tax sources. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in Appendix A.

Property Tax Revenue. Property taxes provide Jasper County’s largest source of revenue, approximately half of total general fund revenue. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, agricultural property, and manufacturing and industrial property. Personal property includes vehicles owned by individuals and business personal property. Utility and motor carrier property is also taxed.

Other Tax Revenue. Other taxes include the local option sales tax (LOST) and the accommodations tax. The local option sales tax provides approximately 11 percent of total general revenue. However, a large portion of the LOST revenue is used to rollback property taxes or distributed to the municipal governments within the county. Therefore, the net revenue available for other purposes is much lower. Accommodations tax provides less than 3 percent of county general revenue.

Non-tax Revenue. Non-tax revenue provides approximately 36 percent of Jasper County general revenue. Non-tax revenue includes revenue from licenses, permits, fines, intergovernmental revenue, and miscellaneous income.

The estimated increase in revenue from each source under each scenario is presented in Table 17.

Table 17 - Estimated Revenue Increases by Source, Jasper County, Present Value, 2007 - 2026

Source	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$498,040,000	\$641,967,000
Other real estate	209,578,000	233,566,000
Personal property	76,694,000	76,694,000
Business personal property	18,986,000	18,986,000
Utility and motor carrier property	68,266,000	68,266,000
Total Property Tax	871,564,000	1,039,479,000
Other Taxes	8,852,000	8,852,000
Non-tax	78,402,000	77,520,000
Total	\$958,818,000	\$1,125,851,000

Clearly, the present value of development-related revenue increases depends largely on the average value of future residential construction. Increasing the average residence value from \$172,357 (in the base scenario) to \$222,166 (in the alternate scenario) increases the present value of projected revenue by \$167 million.

COMPARISON OF EXPENDITURES AND REVENUES

Our analysis indicates that, under either scenario, the revenue generated by population growth will exceed the operating and capital expenditures required to provide county government services to the new residents over the entire twenty-year study period. Under the alternate scenario, the present value of the surplus exceeds \$564 million. Under the alternate scenario, the surplus exceeds \$731 million.

Table 18 presents the increased revenues and expenditures associated with population growth as present values. In the base scenario, population growth is projected to only increase expenditures by approximately \$0.41 for every \$1.00 it increases revenues. In the alternative scenario, expenditures increase by only \$0.35 for every \$1.00 increase in revenues.

**Table 18 - Expenditure Increases, Revenue Increases, and Surplus
or (Deficit), Jasper County, Present Value, 2007 - 2026**

Item	Present Value (Base scenario)	Present Value (Alternate scenario)
Expenditures		
Operating	\$312,877,000	\$312,877,000
Capital	81,099,000	81,099,000
Total Expenditures	393,976,000	393,976,000
Total Revenues	958,818,000	1,125,851,000
Total Surplus or (Deficit)	\$564,842,000	\$731,875,000

Annual projected expenditures, revenues, surpluses, and deficits (in constant 2005 dollars), using the base scenario, are presented in Table 19. Results for the alternate scenario are presented in Table 20.

We were able to project a year of purchase for many capital expenditures, such as vehicles purchased for use by new employees or expansions of the detention center. In these cases we assumed that the expenditure would occur during the year of need. For other capital expenditures, primarily expansion of headquarters and office spaces, the year or years in which expenditures would occur were uncertain. These expenditures are all modeled as occurring in the first year of the study period, producing a large first-year deficit. In actuality, these expenditures will most likely take place over a number of years.

**Table 19 - Projected Growth-Related Expenditures, Revenue,
Surplus or Deficit, Jasper County, Base Scenario, 2007 - 2026**

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$838,000	\$5,564,000	\$4,726,000	\$14,763,000	(\$10,037,000)
2008	1,215,000	10,699,000	9,484,000	91,000	9,393,000
2009	4,090,000	15,846,000	11,756,000	6,931,000	4,825,000
2010	4,800,000	20,933,000	16,133,000	168,000	15,965,000
2011	5,759,000	25,955,000	20,196,000	1,109,000	19,087,000
2012	6,968,000	30,910,000	23,942,000	2,002,000	21,940,000
2013	10,315,000	35,794,000	25,479,000	8,902,000	16,577,000
2014	11,122,000	40,606,000	29,484,000	2,137,000	27,347,000
2015	12,513,000	45,347,000	32,834,000	2,217,000	30,617,000
2016	13,638,000	50,015,000	36,377,000	2,291,000	34,086,000
2017	14,910,000	54,611,000	39,701,000	2,386,000	37,315,000
2018	18,673,000	59,135,000	40,462,000	9,259,000	31,203,000
2019	19,859,000	63,587,000	43,728,000	2,551,000	41,177,000
2020	21,383,000	67,970,000	46,587,000	2,635,000	43,952,000
2021	22,757,000	72,283,000	49,526,000	2,759,000	46,767,000
2022	24,251,000	76,528,000	52,277,000	2,844,000	49,433,000
2023	28,479,000	80,705,000	52,226,000	9,760,000	42,466,000
2024	30,100,000	84,816,000	54,716,000	3,073,000	51,643,000
2025	31,969,000	88,863,000	56,894,000	3,206,000	53,688,000
2026	33,800,000	92,845,000	59,045,000	3,312,000	55,733,000
Total	\$317,439,000	\$1,023,011,000	\$705,572,000	\$82,396,000	\$623,176,000

Note: Amounts in constant 2005 dollars.

Table 20 - Projected Growth-Related Expenditures, Revenue, Surplus or Deficit, Jasper County, Jasper County, Alternate Scenario, 2007 - 2026

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$838,000	6,507,000	5,669,000	\$14,763,000	(\$9,094,000)
2008	1,215,000	12,603,000	11,388,000	91,000	11,297,000
2009	4,090,000	18,681,000	14,591,000	6,931,000	7,660,000
2010	4,800,000	24,672,000	19,872,000	168,000	19,704,000
2011	5,759,000	30,573,000	24,814,000	1,109,000	23,705,000
2012	6,968,000	36,380,000	29,412,000	2,002,000	27,410,000
2013	10,315,000	42,092,000	31,777,000	8,902,000	22,875,000
2014	11,122,000	47,709,000	36,587,000	2,137,000	34,450,000
2015	12,513,000	53,229,000	40,716,000	2,217,000	38,499,000
2016	13,638,000	58,655,000	45,017,000	2,291,000	42,726,000
2017	14,910,000	63,986,000	49,076,000	2,386,000	46,690,000
2018	18,673,000	69,224,000	50,551,000	9,259,000	41,292,000
2019	19,859,000	74,370,000	54,511,000	2,551,000	51,960,000
2020	21,383,000	79,426,000	58,043,000	2,635,000	55,408,000
2021	22,757,000	84,393,000	61,636,000	2,759,000	58,877,000
2022	24,251,000	89,272,000	65,021,000	2,844,000	62,177,000
2023	28,479,000	94,065,000	65,586,000	9,760,000	55,826,000
2024	30,100,000	98,775,000	68,675,000	3,073,000	65,602,000
2025	31,969,000	103,402,000	71,433,000	3,206,000	68,227,000
2026	33,800,000	107,948,000	74,148,000	3,312,000	70,836,000
Total	\$317,439,000	1,195,963,000	878,524,000	\$82,396,000	\$796,128,000

Note: Amounts in constant 2005 dollars.

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the projected deficit or surplus by requiring new expenditures and providing new revenues. The net impact per household cannot be calculated by dividing annual deficits or surpluses by the number of new households each year. That method would not accurately allocate the costs of capital improvements because new households in early years contribute to the need for capital improvements that occur in later years and households in later years benefit from capital improvements that occur in earlier years.

We calculate the average impact per new household by dividing the present value of the net impact by the weighted total of projected new households. New households in each year are weighted by the number of years they will be served during the study period. In other words, new households in the first year are weighted twenty times as heavily as new households in the last year, because they receive services and contribute to municipal revenues for twenty years rather than for one. The estimated revenue increases per household, under both revenue assumptions, are presented in Table 21. The estimated expenditure increases per household are presented in Table 22.

**Table 21 - Revenue Increases per Household by
Source, Jasper County, Present Value, 2007-2026**

Item	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$15,106	\$19,471
Other real estate	6,357	7,084
Personal property	2,326	2,326
Business personal property	576	576
Utility and motor carrier property	2,071	2,071
Total Property Tax	26,435	31,528
Other Taxes	268	268
Non-tax	2,378	2,351
Total Revenues	\$29,082	\$34,148

**Table 22 -Expenditure per Household by Category,
Jasper County, Present Value, 2007-2026**

Category	Expenditures
General Administration	\$684
Planning and Community Development	32
Tax Administration	336
Judicial Administration	580
Public Safety	7,679
Public Works	1,101
Recreation and Culture	1,538
Total Expenditures	\$11,950

Calculated by our method, under the base scenario, the present value of the revenue generated by the average new household over the next twenty years exceeds the present value of the costs of serving it by \$17,132. Using the alternative assumption, revenues exceed expenditures by \$22,198. Revenue increases, expenditure increases, and deficits per household are summarized in Table 23.

**Table 23 - Revenue, Expenditure, and Surplus or (Deficit) per
Household, Jasper County, Present Value, 2007-2026**

Item	Amount (Base scenario)	Amount (Alternate scenario)
Expenditures		
Operating	\$9,490	\$9,490
Capital	2,460	2,460
Total Expenditures	11,950	11,950
Total Revenues	29,082	34,148
Total Surplus/(Deficit)	\$17,132	\$22,198

SUMMARY

Residential development is projected to increase Jasper County's population from approximately 21,000 to almost 178,000 residents over a period of twenty years. Jasper County government will incur substantial additional expenditures in providing public services to these new residents. We project that Jasper County will need to hire over 500 additional employees over the twenty-year period. These additional employees, the increased operating expenditures associated with their activities, and the capital expenditures required by the increased demand for county services are projected to cost almost \$400 million over the twenty-year period.

However, the increase in residential and commercial investment and the increase in economic activity resulting from the larger population are projected to generate over \$1 billion of additional county revenue over the period. Thus the new revenue is expected to offset the increased expenditures and produce a surplus.

ALTERNATIVE ESTIMATES OF FIRE PROTECTION AND LIBRARY SERVICES EXPENDITURES

In projecting future expenditures, we assumed that the county would continue to provide the services it has provided in the past by increasing the number of employees and making capital expenditures required to provide services to a larger population. We feel this method (which is explained more fully in Appendix A) provides reasonable estimates in most cases. However, it most likely understates the increased expenditures needed for two county services: fire protection and library services. Alternative estimates of future expenditures for these two services are discussed below.

Fire Protection. At present, Jasper County provides fire protection services through a combination of methods: contracting with other local governments, full-time paid firefighters, and unpaid volunteers. Jasper County has nine fire stations: one that is fully staffed with paid fire fighters, two that have one paid fire fighter, and six that are fully staffed by unpaid volunteers.

A fire/EMS needs assessment completed earlier this year¹⁸ recommends that Jasper County increase the number of full-time firefighters on its staff and decrease its reliance on unpaid volunteers. We are not sure what Jasper County's plans are for expanding the size of the paid firefighting staff or how to allocate those increased expenditures to population growth. However, we thought it might be helpful to provide an estimate of the future costs of a county-wide full-time firefighting staff.

According to the 2005-2006 Jasper County budget, total expenditures for the Cherry Point Fire Station, are approximately \$600,000 per year. These expenditures cover six full-time fire fighters, who staff the station two per shift on a 24 on/48 off rotation, and

¹⁸ MGT of America, *Fire/EMS Needs Assessment: Final Report*. (Columbia, SC: MGT of America, 2005).

the other operating expenditures associated with the station. If the other eight stations were similarly staffed, Jasper County would incur an additional \$4.8 million per year for fire protection services. The present value of these expenditures is \$91,276,000. This figure exceeds the estimate of fire protection expenditures reported on page 15 by approximately \$78 million.

Library Services. Library services in Jasper County are currently provided by the Allendale-Hampton-Jasper Regional Library. Jasper County budget documents indicate that Jasper County provides the A-H-J Regional Library with an annual appropriation of \$100,000 and pays approximately \$31,000 for expenses associated with library facilities within Jasper County. Our estimate of future library expenditures assumes that these expenditures will increase with inflation and county population over the twenty-year period. The present value of these library expenditures is approximately \$9.5 million.

However, that level of expenditure may not be sufficient to provide the level of library services that future residents are likely to demand. In 2000, Anderson County, South Carolina (population approximately 173,000) constructed a 96,000 square foot main library branch at a total cost of approximately \$13.5 million for construction, books, and materials. This facility has over 75 employees.¹⁹ A similar facility today would cost almost \$16 million.

The operating costs of such a facility would be considerable. According to a report of the South Carolina State Library²⁰, a full-service library system has approximately 12 FTE per 25,000 population. A county of 178,000 would require a staff of approximately 85 employees. Salary and benefits for those employees would exceed \$2 million per year. Utility and other operating expenses for a large library facility would be incurred as well. The annual operating budget for the Anderson County Library System is approximately \$4 million.²¹ The total expenditure over the twenty-year period will depend on the year of construction of any new facility, the sort of facility that is constructed, and how it is staffed. Clearly, the total expenditures could easily exceed \$9.5 million.

SENSITIVITY OF FISCAL IMPACT TO DEVELOPMENT PATTERNS

To some extent, the projected fiscal surplus for Jasper County government is a result of our assumption that the bulk of residential development occurs within the

¹⁹ *About Anderson County Library*, <<http://www.andersonlibrary.org/about.html>> (Anderson, SC: Anderson County Library).

²⁰ Felicia Vereen, *Public Library Building in the 21st Century*, (Columbia, SC: South Carolina State Library, 2004).

²¹ *Comprehensive Annual Financial Report: 2004*, <http://www.andersoncountysc.org/web/Admin/Documents/Finance/CAFR2004_001.pdf> (Anderson, SC: Anderson County Government, 2004).

municipalities, rather than within the unincorporated areas of the county. This pattern of development will minimize the impact of development on the demand for county government services. For this reason, we briefly investigated the fiscal impact of two alternative development patterns.

We call the first alternative the “high spillover” scenario. In this case, we assume that development in the unincorporated areas occurs at three times the rate assumed in the base scenario. We call the second alternative the “rural boom” scenario. In this case, we assume that the bulk of development occurs within the unincorporated areas, rather than within the municipalities. Table 24 compares the two alternative scenarios to the base scenario used for the full fiscal impact analysis.

Table 24 - Alternative Development Scenarios, Jasper County, 2007-2026

Location	Growth Rates in Residential Units per Year		
	Base Scenario	High Spillover Scenario	Rural Boom Scenario
Hardeeville	2,500	2,500	400
Ridgeland	240	240	240
Unincorporated Areas	400	1,200	2,500
Total	3,140	3,940	3,140

We estimated the fiscal impact for each of the alternative development scenarios, using the more conservative base assumptions regarding residential unit values. Summary results of the two analyses, along with the results from the base scenario are presented in Table 25 and Table 26 (similar to Table 18 and Table 23). Table 25 compares the scenarios in terms of total present values. Table 26 compares the scenarios on a per-household basis.

The results presented in Table 25 indicate that either alternative scenario results in greater expenditures by Jasper County government, relative to the base scenario. In the high spillover scenario, the greater expenditures are more than offset by greater revenues which increase the size of the projected fiscal surplus. In the rural boom scenario, total projected revenues decline because of a lower average residence value and the projected fiscal surplus is reduced by \$193 million. The results presented in Table 26 indicate that under either alternative the surplus per household is reduced relative to the base scenario.

**Table 25 - Expenditure Increases, Revenue Increases, and Surplus or (Deficit),
Jasper County, Alternative Development Patterns, Present Value, 2007 - 2026**

Item	Amount (Base Scenario)	Amount (High Spillover Scenario)	Amount (Rural Boom Scenario)
Expenditures			
Operating	\$312,877,000	\$441,247,000	\$440,143,000
Capital	81,099,000	109,291,000	94,165,000
Total Expenditures	393,976,000	550,718,000	534,308,000
Total Revenues	958,818,000	1,204,115,000	905,790,000
Total Surplus or (Deficit)	\$564,842,000	\$653,397,000	\$371,481,000

**Table 26 - Revenue, Expenditure, and Surplus or (Deficit) per Household,
Jasper County, Alternative Development Patterns, Present Value, 2007-2026**

Item	Amount (Base Scenario)	Amount (High Spillover Scenario)	Amount (Rural Boom Scenario)
Expenditures			
Operating	\$9,490	\$10,670	\$13,350
Capital	2,460	2,642	2,856
Total Expenditures	11,950	13,312	16,206
Total Revenues	29,082	29,106	27,473
Total Surplus/(Deficit)	\$17,132	\$15,794	\$11,267

In general, these results seem to indicate that Jasper County could tolerate quite a bit of development within the unincorporated areas beyond the amount assumed in our base projection without exhausting the projected fiscal surplus. We caution, however, that greater development within the unincorporated areas will most likely increase the cost of providing full-time fire protection in the rural portions of the county beyond even our higher alternative estimate. Furthermore, greater growth in the unincorporated

areas might require Jasper County to assume greater responsibility for sports facilities and programs than we have accounted for in our estimates.

FISCAL IMPACT ANALYSIS – HARDEEVILLE

KEY FINDINGS

- For Hardeeville municipal government, the fiscal impact of population growth depends, in large part, on the average value of new residences.
- Under the more conservative base scenario, the cost of providing municipal government services to the new residents is projected to exceed the revenue generated by population growth. Under the alternate scenario, the revenue generated by population growth is projected to exceed the additional costs.
- The municipal government expenditures associated with projected population growth are estimated at \$1,144,845,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of the expenditure increase is \$1,107,509,000. This figure is equivalent to \$42,191 per household.
- Under the more conservative base scenario (which assumes an average residence value of \$180,000), the municipal revenue associated with population growth is estimated at \$1,030,831,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$998,359,000. This figure is equivalent to \$38,033 per household.
- Under the base scenario, the estimated expenditures exceed the estimated revenue by \$114,013,000 (in constant 2005 dollars). The present value of this deficit is \$109,149,000. This figure is equivalent to \$4,158 per household.
- Under the alternate scenario (which assumes an average residence value of \$240,000), the municipal revenue associated with population growth is estimated at \$1,215,177,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$1,176,763,000. This figure is equivalent to \$44,829 per household.
- Under the alternate scenario, the estimated revenue increase exceeds the estimated expenditure increase by \$70,333,000 (in constant 2005 dollars). The present value of this surplus is \$69,254,000. This figure is equivalent to \$2,683 per household.

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the increases in Hardeeville municipal expenditures and revenues associated with population growth projected for the period. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

Municipal activities are classified into six functional categories. Expenditures within each functional category are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in Appendix A.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of Hardeeville municipal government.

Capital Expenditures. These expenditures include the costs of purchasing or constructing new public facilities, such as fire stations or parks, and the cost of vehicles and equipment, such as street maintenance equipment and patrol cars.

The estimated increase in expenditures of each type within each functional category is presented in Table 27.

Table 27 – Present Value of Estimated Expenditure Increases by Type and Functional Category, Hardeeville, 2007 - 2026

Category	Operating	Capital	Total
General Administration	\$119,435,000	\$6,453,000	\$125,888,000
Planning and Community Development	43,354,000	4,523,000	47,877,000
Judicial Administration	32,499,000	3,015,000	35,514,000
Public Safety	469,932,000	53,037,000	522,969,000
Public Works	206,629,000	29,633,000	236,261,000
Recreation and Culture	54,060,000	84,939,000	138,999,000
Total	\$925,909,000	\$181,600,000	\$ 1,107,508,000

EXPENDITURE INCREASES BY FUNCTIONAL CATEGORY

Estimated expenditure increases within each functional category are summarized below. In addition to the expenditure estimates, each category summary includes a brief description of the activities included within the category and a brief list of the added personnel²² and facilities required to serve the increasing population. Additional estimate details are available in Appendix B.

General Administration. Expenditures in the general administration functional category include those related to operations of the City Council, the City Administrator's office, and budgeting, purchasing, and human resources activities. Capital expenditures within the general administration category include those needed to expand office capacity to accommodate the expected increase in staffing levels. Increases in general administration expenditures are summarized in Table 28.

**Table 28 - General Administration, Hardeeville,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 107 employees	\$119,435,000
Capital	Additional office space with associated land	6,453,000
Total		\$125,888,000

Planning and Community Development. Expenditures in the planning and community development functional category include those related to planning and economic development. Increases in population will necessitate hiring additional planners, program managers, and community development specialists. Capital expenditures within the planning and community development category include those needed to expand office capacity to accommodate the expected increase in staffing levels. Increases in planning and community development expenditures are summarized in Table 29.

²² The projected personnel additions are estimates based only on projected increases in population. Actual staffing decisions take into account other factors in addition to the size of the local population. Consequently, future staff levels may be higher or lower than the levels projected in this report.

**Table 29 – Planning and Community Development,
Hardeeville, Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 75 employees	\$43,354,000
Capital	Additional office space with associated land	4,523,000
Total		\$47,877,000

Judicial Administration. Expenditures in the judicial administration functional category include those related to the operations of the municipal courts. Increases in population will necessitate hiring additional judges and clerks. Capital expenditures within the judicial administration category include those needed to expand office and court capacity to accommodate the expected increase in staffing levels. Increases in judicial administration expenditures are summarized in Table 30.

**Table 30 – Judicial Administration, Hardeeville,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 50 employees	\$32,499,000
Capital	Additional court and office space with associated land	3,015,000
Total		\$35,514,000

Public Safety. Expenditures in the public safety functional category include those related to law enforcement, fire protection, and medical first response. Increases in population will necessitate hiring additional sworn police officers and civilian employees. Capital expenditures within the law enforcement subfunction include those needed to provide police substations to cover a larger territory, to expand office capacity to accommodate additional civilian employees, and the purchase of additional patrol vehicles. Increases in population will also necessitate hiring additional fire fighters, medical first responders, and civilian employees. Capital expenditures within the fire protection subfunction include those needed to construct new fire stations and to purchase additional equipment, such as fire engines.

Increases in public safety expenditures are summarized in Table 31. Summaries for each subfunction are presented in Table 32 and Table 33.

**Table 31 - Public Safety, Summary, Hardeeville,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	See Table 32 and Table 33 for details by subfunction	\$469,932,000
Capital	See Table 32 and Table 33 for details by subfunction	53,037,000
Total		\$522,969,000

**Table 32 - Public Safety, Law Enforcement, Hardeeville,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 supervisory officers, 282 patrol officers, 94 investigators, and 125 civilian employees	\$348,022,000
Capital	Additional headquarters and substation space with associated land; patrol vehicles	41,721,000
Total		\$389,743,000

**Table 33 – Public Safety, Fire Protection and First Response,
Hardeeville, Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 179 fire fighters and 4 civilian employees	\$121,910,000
Capital	Additional fire stations; fire trucks and engines	11,316,000
Total		\$133,226,000

Public Works. Expenditures in the public works functional category include those related to the maintenance of municipal buildings, park areas and other facilities, performing building inspections and other code enforcement activities, and maintaining city streets. Increases in population will necessitate hiring additional workers such as street maintenance workers, building inspectors, and traffic engineers. Capital expenditures within the public works category include those needed to expand office capacity to accommodate the expected increase in staffing levels and the purchase of additional maintenance equipment such as backhoes and dump trucks. Increases in public works expenditures are summarized in Table 34.

Table 34 – Public Works, Hardeeville, Estimated Expenditure Increase, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 325 employees	\$206,629,000
Capital	Additional headquarters and storage space with associated land; road maintenance equipment and other rolling stock	29,633,000
Total		\$236,261,000

Recreation and Culture. Expenditures in the recreation and culture functional category include those related to the operations of park and recreation facilities and programs. These expenditures do not include those related to the maintenance of park facilities; those expenditures are included in the public works functional category. Increases in

population will necessitate hiring additional recreation facility managers and program directors. Capital expenditures within the recreation and culture category include those needed for the purchase and construction of recreation facilities such as parks, ball fields, tennis courts, and swimming pools. Increases in recreation and culture expenditures are summarized in Table 35.

**Table 35 – Recreation and Culture, Hardeeville,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 125 employees	\$54,060,000
Capital	Additional park land; 75 ball fields, 13 soccer fields, 125 tennis courts, 13 gyms/community centers, and 6 swimming pools	84,939,000
Total		\$138,999,000

SUMMARY OF PERSONNEL ADDITIONS

Our projection indicates that Hardeeville will need to increase its personnel from 45 full-time equivalent (FTE) employees to 1,415 FTE over the period under study – an increase of 1,370 employees. The larger staff required to serve a larger population accounts for a large share of the estimated expenditure increases expected during the period from 2007 to 2026. Table 36 summarizes the projected annual personnel additions over the entire period.

Table 36 – Summary of Personnel Additions, Hardeeville, 2007-2026

Year	Full Time Equivalent Employees	New Hires	Full-Time Equivalent Employees per 1000 Residents
Current	45	-	24.8
2007	146	101	18.1
2008	194	48	13.6
2009	262	68	12.7
2010	308	46	11.5
2011	365	57	11.0
2012	427	62	10.9
2013	525	98	11.5
2014	578	53	11.2
2015	652	74	11.2
2016	706	54	11.0
2017	767	61	10.9
2018	869	102	11.3
2019	940	71	11.3
2020	1,007	67	11.3
2021	1,075	68	11.2
2022	1,139	64	11.2
2023	1,214	75	11.2
2024	1,281	67	11.2
2025	1,349	68	11.2
2026	1,415	66	11.2
Total		1,370	

Approximately 50 percent of the projected staff increase occurs in the public safety functional category. The next largest increase is in the public works category. Together, these two categories account for almost three-quarters of the projected increase in Hardeeville staff. Table 37 presents projected staff increases by functional category.

Table 37 - Projected Staff Increases by Functional Category, Hardeeville, 2007 - 2026

Category	Staff Increase	Percent of Total Increase
General Administration	107	7.8%
Planning and Community Development	75	5.5%
Judicial Administration	50	3.6%
Public Safety	688	50.2%
Public Works	325	23.7%
Recreation and Culture	125	9.1%
Total	1,370	100.0%

REVENUE INCREASES

Hardeeville has three main sources of revenue: property tax, other taxes, and non-tax sources. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in Appendix A.

Property Tax Revenue. Property taxes provide approximately 28 percent of Hardeeville general fund revenue. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, agricultural property, and manufacturing and industrial property. Personal property includes vehicles owned by individuals and business personal property.

Other Tax Revenue. Other taxes include Hardeeville’s share of the local option sales tax (LOST) and the accommodations tax. The local option sales tax provides approximately 11 percent of total general revenue. The accommodations tax provides approximately 25 percent of general revenue.

Non-tax Revenue. Non-tax revenue provides approximately 35 percent of general revenue. Non-tax revenue includes revenue from licenses and permits, fines, intergovernmental revenue, and miscellaneous income.

The estimated increase in revenue from each source under each scenario is presented in Table 38.

**Table 38 - Estimated Revenue Increases by Source,
Hardeeville, Present Value, 2007 - 2026**

Source	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$392,739,000	\$523,652,000
Other real estate	164,028,000	185,847,000
Personal property	57,911,000	57,911,000
Business personal property	14,786,000	14,786,000
Total Property Tax	629,464,000	782,196,000
Other Taxes	38,400,000	38,400,000
Non-tax	296,704,000	296,704,000
Total	\$964,568,000	\$1,142,971,000

Clearly, the present value of development-related revenue increases depends largely on the average value of future residential construction. Increasing the average residence value from \$180,000 (in the base scenario) to \$240,000 (in the alternate scenario) increases the present value of projected revenue by \$178 million.

COMPARISON OF EXPENDITURES AND REVENUES

Our analysis indicates that, under the base scenario, the expenditures required to serve the new residents will exceed the revenue generated by population growth. The present value of the deficit is approximately \$109 million. Under the alternate scenario revenues will exceed expenditures generating a surplus with a present value of approximately \$69 million.

Table 39 presents the increased revenues and expenditures associated with population growth. In the base scenario, population growth is projected to increase expenditures by approximately \$1.11 for every \$1.00 it increases revenues. In the alternate scenario, expenditures increase by only \$0.94 for every \$1.00 increase in revenues.

**Table 39 - Expenditure Increases, Revenue Increases, and Surplus
or (Deficit), Hardeeville, Present Value, 2007 - 2026**

Item	Present Value (Base scenario)	Present Value (Alternate scenario)
Expenditures		
Operating	\$925,909,000	\$925,909,000
Capital	181,600,000	181,600,000
Total Expenditures	1,107,509,000	1,107,509,000
Total Revenues	998,359,000	1,176,763,000
Total Surplus or (Deficit)	(\$109,149,000)	\$69,254,000

Annual projections of expenditures, revenues, surpluses, and deficits (in constant 2005 dollars) for each year of the study period, using the base scenario, are presented in Table 40. Results for the alternate scenario are presented in Table 41.

We were able to project a year of purchase for many capital expenditures, such as vehicles purchased for use by new employees or the addition of new fire stations. In these cases we assumed that the expenditure would occur during the year of need. For other capital expenditures, primarily expansion of headquarters and office spaces, the year or years in which expenditures would occur were uncertain. These expenditures are all modeled as occurring in the first year of the study period, producing a large first-year deficit. In actuality, these expenditures will most likely take place over a number of years.

**Table 40 - Projected Growth-Related Expenditures, Revenue,
Surplus or Deficit, Hardeeville, Base Scenario, 2007 - 2026**

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$5,868,000	\$9,325,000	\$3,458,000	\$56,060,000	(\$52,602,000)
2008	8,965,000	14,046,000	5,081,000	5,143,000	(61,000)
2009	13,118,000	18,723,000	5,604,000	4,262,000	1,342,000
2010	16,187,000	23,356,000	7,169,000	7,671,000	(501,000)
2011	19,962,000	27,945,000	7,983,000	5,380,000	2,604,000
2012	24,025,000	32,488,000	8,463,000	5,491,000	2,972,000
2013	30,667,000	36,984,000	6,317,000	7,073,000	(756,000)
2014	34,464,000	41,432,000	6,968,000	6,382,000	586,000
2015	39,507,000	45,831,000	6,324,000	5,823,000	500,000
2016	43,554,000	50,181,000	6,627,000	5,946,000	681,000
2017	48,193,000	54,483,000	6,290,000	7,191,000	(902,000)
2018	53,325,000	58,735,000	5,410,000	6,170,000	(760,000)
2019	58,528,000	62,940,000	4,412,000	6,493,000	(2,081,000)
2020	63,650,000	67,097,000	3,446,000	4,656,000	(1,210,000)
2021	68,998,000	71,206,000	2,208,000	10,381,000	(8,172,000)
2022	74,263,000	75,269,000	1,006,000	5,013,000	(4,007,000)
2023	80,456,000	79,285,000	(1,170,000)	7,235,000	(8,405,000)
2024	86,309,000	83,257,000	(3,052,000)	10,277,000	(13,329,000)
2025	92,458,000	87,183,000	(5,274,000)	7,690,000	(12,965,000)
2026	98,729,000	91,066,000	(7,663,000)	9,284,000	(16,946,000)
Total	\$961,225,000	\$1,030,831,000	\$69,606,000	\$183,620,000	(\$114,013,000)

Note: Amounts in constant 2005 dollars.

**Table 41 - Projected Growth-Related Expenditures, Revenue,
Surplus or Deficit, Hardeeville, Alternate Scenario, 2007 - 2026**

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$5,868,000	\$11,535,000	\$5,668,000	\$56,060,000	(\$50,393,000)
2008	8,965,000	17,129,000	8,164,000	5,143,000	3,021,000
2009	13,118,000	22,653,000	9,535,000	4,262,000	5,273,000
2010	16,187,000	28,109,000	11,922,000	7,671,000	4,252,000
2011	19,962,000	33,497,000	13,535,000	5,380,000	8,156,000
2012	24,025,000	38,816,000	14,790,000	5,491,000	9,299,000
2013	30,667,000	44,064,000	13,397,000	7,073,000	6,325,000
2014	34,464,000	49,243,000	14,779,000	6,382,000	8,398,000
2015	39,507,000	54,352,000	14,845,000	5,823,000	9,022,000
2016	43,554,000	59,392,000	15,837,000	5,946,000	9,892,000
2017	48,193,000	64,362,000	16,169,000	7,191,000	8,978,000
2018	53,325,000	69,264,000	15,939,000	6,170,000	9,769,000
2019	58,528,000	74,100,000	15,572,000	6,493,000	9,078,000
2020	63,650,000	78,869,000	15,218,000	4,656,000	10,562,000
2021	68,998,000	83,572,000	14,575,000	10,381,000	4,194,000
2022	74,263,000	88,212,000	13,950,000	5,013,000	8,937,000
2023	80,456,000	92,789,000	12,333,000	7,235,000	5,098,000
2024	86,309,000	97,304,000	10,996,000	10,277,000	719,000
2025	92,458,000	101,759,000	9,302,000	7,690,000	1,611,000
2026	98,729,000	106,155,000	7,426,000	9,284,000	(1,857,000)
Total	\$961,225,000	\$1,215,177,000	\$253,952,000	\$183,620,000	\$70,333,000

Note: Amounts in constant 2005 dollars.

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the projected deficit or surplus by requiring new expenditures and providing new revenues. The net impact per household cannot be calculated by dividing annual deficits or surpluses by the number of new households each year. That method would not accurately allocate the costs of capital improvements because new households in early years contribute to the need for capital improvements that occur in later years and households in later years benefit from capital improvements that occur in earlier years.

We calculate the average impact per new household by dividing the present value of the net impact by the weighted total of projected new households. New households in each year are weighted by the number of years they would be served during the study period. In other words, new households in the first year are weighted twenty times as heavily as new households in the last year, because they receive services and contribute to municipal revenues for twenty years rather than for one. The estimated revenue increases per household, under both revenue assumptions, are presented in Table 42. The estimated expenditure increases per household are presented in Table 43.

**Table 42 - Revenue Increases per Household by
Source, Hardeeville, Present Value, 2007-2026**

Item	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$14,961	\$19,949
Other real estate	6,249	7,080
Personal property	2,206	2,206
Business personal property	563	563
Total Property Tax	23,980	29,798
Other Taxes	1,463	1,463
Non-tax	12,590	13,568
Total Revenues	\$38,033	\$44,829

**Table 43 -Expenditure Increases per Household by
Category, Hardeeville, Present Value, 2007-2026**

Category	Expenditures
General Administration	\$4,796
Planning and Community Development	1,824
Judicial Administration	1,353
Public Safety	19,923
Public Works	9,000
Recreation and Culture	5,295
Total Expenditures	\$42,191

Calculated by our method, under the base scenario, the present value of the costs of serving the average new household over the next twenty years exceeds the present value of the revenue generated by it by \$4,158. Using the alternative assumption, revenues exceed expenditures by \$2,638. Revenue increases, expenditure increases, and deficits per household are summarized in Table 44.

**Table 44 - Revenue Increases, Expenditure Increases, and Surplus or
(Deficit) per Household, Hardeeville, Present Value, 2007-2026**

Item	Amount (Base scenario)	Amount (Alternate scenario)
Expenditures		
Operating	\$35,273	\$35,273
Capital	6,918	6,918
Total Expenditures	42,191	42,191
Total Revenues	38,033	44,829
Total Surplus/(Deficit)	(\$4,158)	\$2,638

SUMMARY

Residential development is expected to increase Hardeeville's population from approximately 1,800 to almost 127,000 residents over a period of twenty years. Hardeeville municipal government will incur substantial additional expenditures in providing public services to these new residents. We project that Hardeeville will need to hire over 1,300 additional employees over the twenty-year period. These additional employees, the increased operating expenditures associated with their activities, and the capital expenditures required by the increased demand for municipal services are projected to cost approximately \$1.1 billion over the twenty-year period.

However, the increase in residential and commercial investment and the increase in economic activity resulting from the larger population are projected to generate from \$1 billion to \$1.2 billion of additional municipal revenue over the period. Thus, depending on the average value of new residential construction, the new revenue may fall short of the increased expenditures or it may produce a surplus.

Recognizing the increased expenditures associated with population growth, Hardeeville municipal officials have begun requiring developers to pay fees and make in-kind contributions to offset the costs of police, fire, and park infrastructure and the increased planning costs associated with new residential development. In an earlier report²³, we estimated the value of developer fees included in one development agreement. We found that the fees included in that agreement had a present value of approximately \$12 million. Because that particular development represented approximately 20% of all development projected for Hardeeville, we estimate that applying similar conditions to all developments would generate revenue with a present value of approximately \$60 million (including the earlier evaluation). Thus, even under the more conservative base scenario, development fees appear to cover a large portion of the increased expenditures not covered by normal municipal revenue.

²³ William E. Molnar and Charles Taylor, *Argent West Development Fiscal Impact Assessment, city of Hardeeville, South Carolina* (Clemson, SC: Clemson University, August 2005).

FISCAL IMPACT ANALYSIS – RIDGELAND

KEY FINDINGS

- For Ridgeland municipal government, the fiscal impact of population growth depends, in large part, on the average value of new residences.
- Under the more conservative base scenario, the cost of providing municipal government services to the new residents is projected to exceed the revenue generated by population growth. Under the alternate scenario, the revenue generated by population growth is projected to exceed the additional costs.
- The municipal government expenditures associated with projected population growth are estimated at \$87,235,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of the expenditure increase is \$84,352,000. This figure is equivalent to \$33,473 per household.
- Under the more conservative base scenario (which assumes an average residence value of \$180,000), the municipal revenue associated with population growth is estimated at \$78,768,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$76,161,000. This figure is equivalent to \$30,222 per household.
- Under the base scenario, the estimated expenditures exceed the estimated revenue by \$8,467,000 (in constant 2005 dollars). The present value of this deficit is \$8,192,000. This figure is equivalent to \$3,251 per household.
- Under the alternate scenario (which assumes an average residence value of \$240,000), the municipal revenue associated with population growth is estimated at \$89,612,000 (in constant 2005 dollars) over the twenty-year period from 2007 to 2026. The present value of this revenue increase is \$86,634,000. This figure is equivalent to \$34,378 per household.
- Under the alternate scenario, the estimated revenue increase exceeds the estimated expenditure increase by \$2,377,000 (in constant 2005 dollars). The present value of this surplus is \$2,281,000. This figure is equivalent to \$905 per household.

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the increases in Ridgeland municipal expenditures and revenues associated with population growth projected for the period. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

Municipal activities are classified into six functional categories.²⁴ Expenditures within each functional category are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in Appendix A.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of Ridgeland municipal government.

Capital Expenditures. These expenditures include the costs of purchasing or constructing new public facilities, such as fire stations or parks, and the cost of vehicles and equipment, such as street maintenance equipment and patrol cars.

The estimated increase in expenditures of each type within each functional category is presented in Table 45.

²⁴ We didn't estimate the fiscal impact of development on Ridgeland's water and sewer utility activities as they have been self-financing in the past. Ridgeland budget documents indicate that revenue from water and sewer charges for service is sufficient to cover the operating costs of the department. We assumed that this trend will continue in the future. Ridgeland municipal officials have indicated that current town policy requires that developers pay for any necessary line extensions not paid for by government grants.

Table 45 – Present Value of Estimated Expenditure Increases by Type and Functional Category, Ridgeland, 2007 - 2026

Category	Operating	Capital	Total
General Administration	\$5,418,000	\$241,000	\$5,659,000
Planning and Community Development	4,259,000	181,000	4,440,000
Judicial Administration	1,638,000	121,000	1,759,000
Public Safety	42,207,000	4,480,000	46,687,000
Public Works	11,305,000	1,645,000	12,951,000
Recreation and Culture	4,119,000	8,738,000	12,857,000
Total	\$68,946,000	\$15,406,000	\$84,352,000

EXPENDITURE INCREASES BY FUNCTIONAL CATEGORY

Estimated expenditure increases within each functional category are summarized below. In addition to the expenditure estimates, each category summary includes a brief description of the activities included within the category and a brief list of the added personnel²⁵ and facilities required to serve the increasing population. Additional estimate details are available in Appendix B.

General Administration. Expenditures in the general administration functional category include those related to operations of the City Council, the City Administrator’s office, and budgeting, purchasing, and human resources activities. Capital expenditures within the general administration category include those needed to expand office capacity to accommodate the expected increase in staffing levels. Increases in general administration expenditures are summarized in Table 46.

²⁵ The projected personnel additions are estimates based only on projected increases in population. Actual staffing decisions take into account other factors in addition to the size of the local population. Consequently, future staff levels may be higher or lower than the levels projected in this report.

**Table 46 – General Administration, Ridgeland,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 employees	\$5,418,000
Capital	Additional office space with associated land	241,000
Total		\$5,659,000

Planning and Community Development. Expenditures in the planning and community development functional category include those related to planning and economic development. Increases in population will necessitate hiring additional planners, program managers, and community development specialists. Capital expenditures within the planning and community development category include those needed to expand office capacity to accommodate the expected increase in staffing levels. Increases in planning and community development expenditures are summarized in Table 47.

**Table 47 – Planning and Community Development,
Ridgeland, Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 3 employees	\$4,259,000
Capital	Additional office space with associated land	181,000
Total		\$4,440,000

Judicial Administration. Expenditures in the judicial administration functional category include those related to the operations of the municipal courts. Increases in population will necessitate hiring additional judges and clerks. Capital expenditures within the judicial administration category include those needed to expand office and court capacity to accommodate the expected increase in staffing levels. Increases in judicial administration expenditures are summarized in Table 48.

**Table 48 – Judicial Administration, Ridgeland,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 2 employees	\$1,638,000
Capital	Additional court and office space with associated land	121,000
Total		\$1,759,000

Public Safety. Expenditures in the public safety functional category include those related to law enforcement, fire protection, and medical first response. Increases in population will necessitate hiring additional sworn police officers and civilian employees. Capital expenditures within the law enforcement subfunction include those needed to expand office capacity to accommodate additional civilian employees and the purchase of additional patrol vehicles. Increases in population will also necessitate hiring additional fire fighters, medical first responders, and civilian employees.

**Increases in public safety expenditures are summarized in Table 49.
Summaries for each subfunction are presented in Table 50 and**

Table 51.

**Table 49 – Public Safety, Summary, Ridgeland,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	See Table 50 and Table 51 for details by subfunction	\$42,207,000
Capital	See Table 50 and Table 51 for details by subfunction	4,480,000
Total		\$46,687,000

**Table 50 – Public Safety, Law Enforcement, Ridgeland,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 24 patrol officers, 10 investigators, and 11 civilian employees	\$27,982,000
Capital	Additional headquarters space with associated land; patrol vehicles	3,584,000
Total		\$31,566,000

**Table 51 – Public Safety, Fire Protection and First Response, Ridgeland,
Estimated Expenditure Increase, 2007-2026**

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 25 fire fighters and 1 civilian employee	\$14,226,000
Capital	One-half the cost of 1 new fire station and 1 ladder truck ^a	896,000
Total		\$15,121,000

a – Only one-half the value of these capital expenditures is counted as being growth-related.

Public Works. Expenditures in the public works functional category include those related to the maintenance of municipal buildings and grounds, park areas, and city streets. Increases in population will necessitate hiring additional workers such as street maintenance workers. Capital expenditures within the public works category include those needed to expand office capacity to accommodate the expected increase in staffing levels and the purchase of additional maintenance equipment such as backhoes and dump trucks. Increases in public works expenditures are summarized in Table 52.

Table 52 – Public Works, Ridgeland, Estimated Expenditure Increase, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 18 employees	\$11,305,000
Capital	Additional headquarters and storage space with associated land; road maintenance equipment and other rolling stock	1,645,000
Total		\$12,951,000

Recreation and Culture. Expenditures in the recreation and culture functional category include those related to the operations of park and recreation facilities and programs. These expenditures do not include those related to the maintenance of park facilities; those expenditures are included in the public works functional category. Increases in population will necessitate hiring additional recreation facility managers and program directors. Capital expenditures within the recreation and culture category include those needed for the purchase and construction of recreation facilities such as parks, ball fields, tennis courts, and community centers. Increases in recreation and culture expenditures are summarized in Table 53.

Table 53 – Recreation and Culture, Ridgeland, Estimated Expenditure Increase, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 3 employees	\$4,119,000
Capital	Additional park land; 7 ball fields, 1 soccer field, 12 tennis courts, and 1 gym/community center	8,738,000
Total		\$12,857,000

SUMMARY OF PERSONNEL ADDITIONS

Our projection indicates that Ridgeland will need to increase its personnel from 26 full-time equivalent (FTE) employees to 127 FTE over the period under study – an increase

of 101 employees. The larger staff required to serve a larger population accounts for a large share of the estimated expenditure increases expected during the period from 2007 to 2026. Table 54 summarizes the projected annual personnel additions over the entire period.

Table 54 - Summary of Personnel Additions, Ridgeland, 2007-2026

Year	Full Time Equivalent Employees	New Hires	Full-Time Equivalent Employees per 1000 Residents
Current	26	-	10.0
2007	38	12	11.9
2008	40	2	10.6
2009	45	5	10.2
2010	48	3	9.6
2011	57	9	10.2
2012	60	3	9.7
2013	66	6	9.7
2014	69	3	9.3
2015	73	4	9.1
2016	80	7	9.3
2017	82	2	8.9
2018	88	6	9.0
2019	95	7	9.1
2020	100	5	9.1
2021	105	5	9.1
2022	111	6	9.1
2023	113	2	8.8
2024	120	7	9.0
2025	123	3	8.8
2026	127	4	8.7
Total		101	

Over 70 percent of the projected staff increase occurs in the public safety functional category. The next largest increase is in the public works category. Together, these two categories account for almost 88 percent of the projected increase in Ridgeland staff. Table 55 presents projected staff increases by functional category.

**Table 55 – Projected Staff Increases by
Functional Category, Ridgeland, 2007 - 2026**

Category	Staff Increase	Percent of Total Increase
General Administration	4	4.0%
Planning and Community Development	3	3.0%
Judicial Administration	2	2.0%
Public Safety	71	70.3%
Public Works	18	17.8%
Recreation and Culture	3	3.0%
Total	101	100.0%

REVENUE INCREASES

Ridgeland has three main sources of revenue: property tax, other taxes, and non-tax sources. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in Appendix A.

Property Tax Revenue. Property taxes provide approximately 14 percent of Ridgeland general fund revenue. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, agricultural property, and manufacturing and industrial property. Personal property includes vehicles owned by individuals and business personal property.

Other Tax Revenue. Other taxes include Ridgeland’s share of the local option sales tax (LOST) and the accommodations and hospitality taxes. The local option sales tax provides approximately 26 percent of total general revenue. The accommodations and hospitality taxes provide approximately 16 percent of general revenue.

Non-tax Revenue. Non-tax revenue provides approximately 44 percent of general revenue. Non-tax revenue includes revenue from licenses and permits, fines, intergovernmental revenue, miscellaneous income, and transfers from water and sewer enterprise revenue.

The estimated increase in revenue from each source under each scenario is presented in Table 56.

**Table 56 - Estimated Revenue Increases by Source,
Ridgeland, Present Value, 2007 - 2026**

Source	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$26,931,000	\$35,908,000
Other real estate	11,248,000	12,744,000
Personal property	3,971,000	3,971,000
Business personal property	1,014,000	1,014,000
Total Property Tax	43,163,000	53,636,000
Other Taxes	4,209,000	4,209,000
Non-tax	28,789,000	28,789,000
Total	\$76,161,000	\$86,634,000

Clearly, the present value of development-related revenue increases depends largely on the average value of future residential construction. Increasing the average residence value from \$180,000 (in the base scenario) to \$240,000 (in the alternate scenario) increases the present value of projected revenue by more than \$10 million.

COMPARISON OF EXPENDITURES AND REVENUES

Our analysis indicates that, under the base scenario, the expenditures required to serve the new residents will exceed the revenue generated by population growth. The present value of the deficit is approximately \$8 million. Under the alternate scenario revenues will exceed expenditures generating a surplus with a present value greater than \$2 million.

Table 57 presents the increased revenues and expenditures associated with population growth. In the base scenario, population growth is projected to increase expenditures by approximately \$1.11 for every \$1.00 it increases revenues. In the alternate scenario, expenditures increase by only \$0.97 for every \$1.00 increase in revenues.

**Table 57 - Expenditure Increases, Revenue Increases, and Surplus
or (Deficit), Ridgeland, Present Value, 2007 - 2026**

Item	Present Value (Base scenario)	Present Value (Alternate scenario)
Expenditures		
Operating	\$68,946,000	\$68,946,000
Capital	15,406,000	15,406,000
Total Expenditures	84,352,000	84,352,000
Total Revenues	76,161,000	86,634,000
Total Surplus or (Deficit)	(\$8,192,000)	\$2,281,000

Projected expenditures, revenues, surpluses, and deficits (in constant 2005 dollars) for each year of the study period, using the base scenario, are presented in Table 58. Results for the alternate scenario are presented in Table 59.

We were able to project a year of purchase for many capital expenditures, such as vehicles purchased for use by new employees. In these cases we assumed that the expenditure would occur during the year of need. For other capital expenditures, primarily expansion of headquarters and office spaces, the year or years in which expenditures would occur were uncertain. These expenditures are all modeled as occurring in the first year of the study period, producing a large first-year deficit. In actuality, these expenditures will most likely take place over a number of years.

**Table 58 - Projected Growth-Related Expenditures, Revenue,
Surplus or Deficit, Ridgeland, Base Scenario, 2007 - 2026**

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$638,000	\$400,000	(\$238,000)	\$3,880,000	(\$4,118,000)
2008	756,000	793,000	37,000	302,000	(265,000)
2009	1,027,000	1,181,000	154,000	202,000	(48,000)
2010	1,221,000	1,566,000	345,000	198,000	147,000
2011	1,790,000	1,948,000	158,000	395,000	(237,000)
2012	1,986,000	2,326,000	340,000	242,000	98,000
2013	2,343,000	2,702,000	359,000	382,000	(23,000)
2014	2,549,000	3,074,000	525,000	275,000	250,000
2015	2,799,000	3,443,000	644,000	2,262,000	(1,618,000)
2016	3,252,000	3,809,000	557,000	442,000	115,000
2017	3,421,000	4,172,000	751,000	315,000	436,000
2018	3,821,000	4,531,000	710,000	320,000	390,000
2019	4,398,000	4,888,000	490,000	482,000	8,000
2020	4,755,000	5,241,000	486,000	347,000	139,000
2021	5,142,000	5,591,000	449,000	410,000	39,000
2022	5,597,000	5,938,000	341,000	531,000	(190,000)
2023	5,828,000	6,282,000	454,000	386,000	68,000
2024	6,391,000	6,624,000	233,000	427,000	(194,000)
2025	6,713,000	6,962,000	249,000	3,466,000	(3,217,000)
2026	7,097,000	7,297,000	200,000	447,000	(247,000)
Total	\$71,525,000	\$78,768,000	\$7,243,000	\$15,710,000	(\$8,467,000)

Note: Amounts in constant 2005 dollars.

**Table 59 - Projected Growth-Related Expenditures, Revenue,
Surplus or Deficit, Ridgeland, Alternate Scenario, 2007 - 2026**

Fiscal Year	Additional Operating Expenditures	Additional Revenues	Operating Surplus/(Deficit)	Additional Capital Expenditures	Total Surplus/(Deficit)
2007	\$638,000	\$462,000	(\$176,000)	\$3,880,000	(\$4,056,000)
2008	756,000	914,000	158,000	302,000	(144,000)
2009	1,027,000	1,361,000	334,000	202,000	132,000
2010	1,221,000	1,802,000	581,000	198,000	383,000
2011	1,790,000	2,239,000	449,000	395,000	54,000
2012	1,986,000	2,670,000	684,000	242,000	442,000
2013	2,343,000	3,098,000	755,000	382,000	373,000
2014	2,549,000	3,520,000	971,000	275,000	696,000
2015	2,799,000	3,938,000	1,139,000	2,262,000	(1,123,000)
2016	3,252,000	4,351,000	1,099,000	442,000	657,000
2017	3,421,000	4,759,000	1,338,000	315,000	1,023,000
2018	3,821,000	5,163,000	1,342,000	320,000	1,022,000
2019	4,398,000	5,563,000	1,165,000	482,000	683,000
2020	4,755,000	5,958,000	1,203,000	347,000	856,000
2021	5,142,000	6,349,000	1,207,000	410,000	797,000
2022	5,597,000	6,736,000	1,139,000	531,000	608,000
2023	5,828,000	7,118,000	1,290,000	386,000	904,000
2024	6,391,000	7,497,000	1,106,000	427,000	679,000
2025	6,713,000	7,872,000	1,159,000	3,466,000	(2,307,000)
2026	7,097,000	8,242,000	1,145,000	447,000	698,000
Total	\$71,525,000	\$89,612,000	\$18,087,000	\$15,710,000	\$2,377,000

Note: Amounts in constant 2005 dollars.

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the projected deficit or surplus by requiring new expenditures and providing new revenues. The net impact per household cannot be calculated by dividing annual deficits or surpluses by the number of new households each year. That method would not accurately allocate the costs of capital improvements because new households in early years contribute to the need for capital improvements that occur in later years and households in later years benefit from capital improvements that occur in earlier years.

We calculate the average impact per new household by dividing the present value of the net impact by the weighted total of projected new households. New households in each year are weighted by the number of years they would be served during the study period. In other words, new households in the first year are weighted twenty times as heavily as new households in the last year, because they receive services and contribute to municipal revenues for twenty years rather than for one. The estimated revenue increases per household, under both revenue assumptions, are presented in Table 60. The estimated expenditure increases per household are presented in Table 61.

**Table 60 - Revenue Increases per Household by
Source, Ridgeland, Present Value, 2007-2026**

Item	Revenue (Base scenario)	Revenue (Alternate scenario)
Property Tax		
Owner-occupied real estate	\$10,687	\$14,249
Other real estate	4,463	5,057
Personal property	1,576	1,576
Business personal property	402	402
Total Property Tax	17,128	21,284
Other Taxes	1,670	1,670
Non-tax	11,424	11,424
Total Revenues	\$30,222	\$34,378

**Table 61 -Expenditure Increases per Household by
Category, Ridgeland, Present Value, 2007-2026**

Category	Expenditures
General Administration	\$2,246
Planning and Community Development	1,762
Judicial Administration	698
Public Safety	18,527
Public Works	5,139
Recreation and Culture	5,102
Total Expenditures	\$33,473

Calculated by our method, under the base scenario, the present value of the costs of serving the average new household over the next twenty years exceeds the present value of the revenue generated by it by \$3,251. Under the alternative assumption there is a surplus; revenues exceed expenditures by \$905. Revenue increases, expenditure increases, and deficits per household are summarized in Table 62.

**Table 62 - Revenue Increases, Expenditure Increases, and Surplus or
(Deficit) per Household, Ridgeland, Present Value, 2007-2026**

Item	Amount (Base scenario)	Amount (Alternate scenario)
Expenditures		
Operating	\$27,360	\$27,360
Capital	6,114	6,114
Total Expenditures	33,473	33,473
Total Revenues	30,222	34,378
Total Surplus/(Deficit)	(\$3,251)	\$905

SUMMARY

Residential development is expected to increase Ridgeland's population from approximately 2,100 to almost 15,000 residents over a period of twenty years. Ridgeland municipal government will incur substantial additional expenditures in providing public services to these new residents. We project that Ridgeland will need to hire over 100 additional employees over the twenty-year period. These additional employees, the increased operating expenditures associated with their activities, and the capital expenditures required by the increased demand for municipal services are projected to cost over \$87 million over the twenty-year period.

However, the increase in residential and commercial investment and the increase in economic activity resulting from the larger population are projected to generate from \$79 million to \$89 million of additional municipal revenue over the period. Thus, depending on the average value of new residential construction, the new revenue may fall short of the increased expenditures by around \$9 million or it may produce a \$2 million surplus.

FISCAL IMPACT ANALYSIS – COMPARISON

The three preceding sections have presented the results of the fiscal impact analysis for each general purpose local government within Jasper County. Using the assumption underlying the more conservative base scenario, the three local governments are each projected to experience somewhat different impacts. Jasper County is projected to enjoy a fiscal surplus. Development in the City of Hardeeville is projected to generate enough revenue to cover associated operating expenditures; additional revenue is needed to cover the required capital expenditures. Development in Ridgeland is projected to generate insufficient revenue to even cover operating expenditures. This section of the report will briefly compare the fiscal impacts of development on each of the three local governments and discuss likely reasons for the disparate impacts.

OVERALL COMPARISON

Table 63 compares the overall fiscal impact of development on each of the three local governments. First, note that for all three governments operating expenditures account for approximately 80 percent of the growth-related expenditure increase. Second, note that Jasper County's expenditure increase is much lower, on a per household basis, than either of the municipalities. This partly reflects the differences in the types of services provided by counties and municipalities, but it also reflects the fact that the bulk of development is expected to occur within the incorporated areas. Third, note the difference between Hardeeville's and Ridgeland's expenditures. This difference reflects the fact that although both municipalities provide similar public services, a large city, such as Hardeeville is projected to become, incurs greater expenses in providing certain services, such as general administration, judicial administration, and public works. Table 64 provides a detailed comparison of Hardeeville's and Ridgeland's projected expenditure increases.

Table 63 – Comparison of Fiscal Impact per Household, Jasper County, Hardeeville, and Ridgeland, Present Value, 2007-2026

Item	Jasper County	City of Hardeeville	Town of Ridgeland
Expenditures			
Operating	\$9,490	\$35,273	\$27,360
Capital	2,460	6,918	6,114
Total Expenditures	11,950	42,191	33,473
Total Revenues	29,082	38,033	30,222
Total Surplus/(Deficit)	\$17,132	(\$4,158)	(\$3,251)

Table 64 – Expenditure Increases per Household by Category, Hardeeville and Ridgeland, Present Value, 2007-2026

Category	Hardeeville	Ridgeland
General Administration	\$4,796	\$2,246
Planning and Community Development	1,824	1,762
Judicial Administration	1,353	698
Public Safety	19,923	18,527
Public Works	9,000	5,139
Recreation and Culture	5,295	5,102
Total Expenditures	\$42,191	\$33,473

Finally, note the difference between Hardeeville’s and Ridgeland’s revenues. Development is projected to generate much less additional revenue for Ridgeland than it does for Hardeeville. The two municipalities have different revenue structures, which are compared in the next section.

REVENUE COMPARISON

Table 65 compares the revenue generated by population growth for each of the three local governments. In comparing county government with the two municipalities, note first that property tax is the largest source of new revenue for all three governmental units. Second, note that the two municipalities are projected to generate much more of their revenue from non-tax sources than is Jasper County. We attribute this difference largely to greater business license revenue for the two municipalities than for Jasper County and to the fact that both municipalities have an automobile registration fee that Jasper County lacks. Third, note that both municipalities are projected to generate much more new revenue from other taxes than does Jasper County. We attribute this difference largely to the formula for dividing sales tax revenue between the county and municipal governments. Sales tax revenue is apportioned partly by population and partly by the location of sales. In our model, most of the population growth and most of the new commercial activity is projected to occur within the municipalities. Under those conditions, the two municipalities will receive most of the new sales tax revenue.

**Table 65 – Comparison of Revenue Increases per Household by Source,
Jasper County, Hardeeville, and Ridgeland, Present Value, 2007-2026**

Item	Jasper County	City of Hardeeville	Town of Ridgeland
Property Tax	\$26,435	\$23,980	\$17,128
Other Taxes	268	1,463	1,670
Non-tax	2,378	12,590	11,424
Total Revenues	\$29,082	\$38,033	\$30,222

In comparing the two municipalities, note first that Hardeeville’s projected property tax revenue is approximately 40 percent higher on a per unit basis than Ridgeland’s. This can be attributed to the difference in millage rates in the two municipalities. Ridgeland’s rate is 105 mills. Hardeeville’s rate is 40 percent greater at 147 mills. Consequently, Ridgeland relies on sales tax, accommodation tax, and non-tax revenues relatively more than does Hardeeville, which relies more heavily on property taxes.

COMPARISON OF JASPER AND LANCASTER COUNTIES

We have previously performed an analysis²⁶ for Lancaster County, South Carolina that is similar in scope and method to this analysis. The results aren't directly comparable because the Lancaster County analysis covered only a ten-year period. However, it might be useful to generally compare the results of the two analyses and discuss the differences.

In the case of Lancaster County we projected that residential growth would generate sufficient revenue to pay for growth-related increases in operating expenditures, but growth-related capital expenditures would result in an overall deficit. In short, we did not project that Lancaster County would enjoy a large fiscal surplus as a result of residential growth as we have for Jasper County.

This difference may be due, in part, to the different patterns of growth. Lancaster County has been experiencing growth primarily in its unincorporated areas and our analysis projected that trend to continue. However, we determined that even in the case of greater growth in the unincorporated areas, Jasper County is projected to experience a fiscal surplus. Therefore, development patterns can't be the entire explanation.

We feel that there are two factors that account for the difference in fiscal outcomes between the two counties. First, we projected that Lancaster County would experience a much lower rate of commercial development than we have projected for Jasper County. In Lancaster County, much of the recent population growth had occurred as a result of people moving to Lancaster County from the Charlotte metro area. As a result, commercial development has been somewhat flat. Lancaster County shoppers have many retail establishments in nearby York County and in the Charlotte area. Consequently, we projected rather low growth in commercial development. If commercial development in Lancaster County experiences an upsurge, the county's fiscal condition will improve.

Jasper County's situation is different from Lancaster County's. Jasper County appears to already be serving as a retail hub. We project that a large increase in population will further stimulate commercial development. Jasper County's projected fiscal surplus is largely a factor of the projected increase in commercial development included in our projection.

The second factor is the difference in industrial development within the two counties. Lancaster County's local economy has historically been heavily reliant on manufacturing. Consequently, a fairly substantial portion of its tax base – approximately 16 percent – consists of industrial property. In Jasper County, on the

²⁶ William E. Molnar and Charles Taylor, *Residential Fiscal Impact Assessment, Lancaster County, South Carolina* (Clemson, SC: Clemson University, January 2005).

other hand, industrial property accounts for only about 2 percent of its assessed valuation.

This difference in industrial development has an implication for the fiscal impact of residential growth. A large industrial base often allows a county to maintain a lower millage rate. Lancaster County's rate is 67 mills – less than half Jasper County's rate of 155 mills. The higher millage rate means that each new residence generates a larger quantity of new property tax revenue. If Jasper County's millage rate was at the same level as Lancaster County's, the net fiscal impact of residential development would be much less positive.

SUMMARY

There are several factors that account for differences in the fiscal impact of population growth on local governments. One important factor is the existing local tax base. Some portions of the tax base show greater growth in response to population growth than others, leading to differences in fiscal impact. Furthermore, differences in tax base lead local governments to make different choices about revenue sources. Some revenue sources grow more in response to population increases than do others, leading to further differences in fiscal impact.

OTHER IMPACTS

The fiscal impact analysis presented in this report focuses on local government services that are provided by county or municipal governments. However, the cost of services provided by other governments, such as school districts or the state, are also affected by population growth. Two such public services are transportation and education. Detailed analysis of the impact of growth on these services is beyond the scope of this report. However, the importance of these services warrants a brief discussion of them.

TRANSPORTATION

Public transportation is not part of this study. However, population growth will put additional burdens on the public transportation system. The ability of the system to respond to increases in population will have a significant impact on the quality of life for residents of Jasper County. The type of public transportation needed within the county will depend on the location of residential, commercial and industrial development, as well as the age and income of new residents. Older residents may require van pools or taxis to get from home to the doctor's office, pharmacy, etc. Younger lower income residents may need transportation to work inside or outside the county.

Public transportation in Jasper County is provided by the Lowcountry Regional Transit Authority. The Authority currently serves the four (4) county area of the Lowcountry Regional Council of Government (Beaufort, Colleton, Hampton and Jasper counties) and Allendale County. Their current operating budget is approximately \$1,500,000 which covers fixed route buses and van pools. Over the next 20-years the Authority has limited plans to increase the number of buses on fixed routes and add van pools. The expected 2025 regional transit budget is estimated to be \$5,000,000 (in current dollars). No specific new county public transportation services have been proposed.

New residents will add more traffic to state roads and highways, as well. The Lowcountry Council of Government is currently forecasting traffic levels of service (LOS) for the county. No LOS information was available at the time this report was completed. Clough Harbor and Associates has estimated that improvements to state highway infrastructure needed to serve growth projected for Hardeeville could have a cost on the order of \$750 million.²⁷

²⁷ April 4, 2005, Memorandum from Thomas P. Karis to R. Shane Haynes, *Transportation and Traffic Planning*.

EDUCATION

This report does not review the projected fiscal impact of new development upon the Jasper County School System. However, the impact of the projected 20-year build out will be significant. Substantial residential growth will increase the need for new schools and additional personnel. In addition, the quality of the schools may have an impact in the marketability of the new homes. The State of South Carolina 2004 Annual District Report Card's absolute rating for Jasper County was "Below Average." This was an improvement over the 2001 to 2003 unsatisfactory ratings. School system quality is an important factor in the purchase selection of parents with school age children. The quality of Jasper County schools may be a detriment to the growth of homes for this segment of the market.

The type of new resident will have a significant impact upon the school system in Jasper County. If most of the development focuses on retirees, then the effect upon the school system will be minimal. However, for this report, we estimate that the new residents will include significant numbers of families with children as well as older residents without children.

Jasper County's schools have been struggling to meet professional staffing levels as well as state minimum achievement levels. A weak tax base has left the School System with limited funding for education extras. Nor has the tax base provided additional funding to buy future school property. Without school impact fees (not available in South Carolina) the school system will be forced to finance new schools through bond referendums. Recent development agreements have included exactions for school land. However, proactive funding mechanisms for new construction are not available from the existing tax base.

The Jasper County School System is already experiencing growing pains. Superintendent Dr. William Singleton stated that a large influx of Latino families has added to staff (ESOL) and space needs.²⁸ Currently, the School System is building two new K-12 schools. However, over the next 15-20 years, they anticipate the need for additional 10-15 new schools.²⁹ In addition, an April 2005 memorandum from the consulting firm of McBride, Dale, Clarion (MDC) estimated a built-out school enrollment of 24,388 new students that will require an additional forty-two (42) new schools: twenty-four (24) new K-5 elementary schools; twelve (12) new 6-8 middle schools; and six (6) new high schools.³⁰

²⁸ Conversation with Dr. William Singleton, Jasper County Superintendent of Schools, September 12, 2005

²⁹ Conversation with Dr. William Singleton, Jasper County Superintendent of Schools, September 12, 2005

³⁰ April 5, 2005, Memorandum from C. Gregory Dale and Wendy E. Moeller to Shane Haynes and Andrew Fulgrum, *Public Facilities Demand - Draft*.

MDC estimated the future school land demand for the forty-two (42) schools to be an additional 912 acres. The recent development agreement for the Agent West track included 75 acres for schools and a \$500.00 per unit development fee. The estimated value per acre was \$30,000. All future projects should include similar stipulations.

ENHANCED AND ALTERNATIVE REVENUE SOURCES

Who pays for growth? As part of a national trend, local governments are looking for different tools to assign capital costs to those who are creating the expense. Historic methods used to pay for additional community infrastructure have included issuing tax-exempt bonds for new infrastructure and/or requiring developers to dedicate land, facilities, or funds for public services. The City of Hardeeville has successfully used this technique for the Argent West development. In the last three decades, impact fees for capital costs have become a commonly used technique to capture some of the additional public costs of growth. All these methods have benefits and drawbacks.

Our analysis suggests that residential development in the Town of Ridgeland will not pay for itself. This is also the case for The City of Hardeeville, under the more conservative base scenario. Specifically, we project that population growth over the next two decades will not generate new revenue sufficient to cover the costs of expanded public services required to serve the growing population. In response, the municipalities should consider implementing one or more of the following methods of cost recovery.

SPECIAL TAX DISTRICTS

South Carolina law allows counties to levy property taxes in select areas of the county for specific purposes, such as street lighting and recreation.³¹ These special tax districts (STDs) are usually associated with unincorporated portions of the county that benefit from a specific service, including larger residential developments. The county council sets the tax rate annually based on the revenue requirements of the public service provided to the STD. Under separate legislation, counties are allowed to create community recreation special tax districts where no other pre-existing STDs or special purpose districts provide such services.³² For example, six counties have created a community recreation special tax district to directly address recreation needs within specific communities (Berkeley, Darlington, Georgetown, Greenville, Lexington and Richland).³³ Compared to countywide taxation of property, STDs contain a smaller pool of taxpayers from which to draw revenue, but have a stronger relationship between to tax paid and the demand for the service provided.

³¹ South Carolina Code, sec. 4-9-30.

³² South Carolina Code, sec. 4-20-10 et seq.

³³ South Carolina Association of Counties, *Alternative Sources of Revenue, Appendix B: Special Taxes/Fees Imposed by Counties* (Columbia, SC: South Carolina Association of Counties, 2004), <http://www.sccounties.org/research/AltSources/AppBSpecialTaxesFees.pdf>

DEVELOPMENT EXACTIONS

Neither Jasper County nor its municipalities have an exaction ordinance but the City of Hardeeville has entered into three developer agreements for the provision of related infrastructure, land and other service costs. Exactions are part of the development or annexation approval process where local government requires a developer to provide either land within a subdivision for a public building or park, requires the developer to provide capital improvement in or around the development, and /or accepts cash in lieu of land or capital improvements.

These improvements can include internal roads, adjacent road widening and traffic signals, sewer and water lines, etc. and are usually set through a formula. Exactions for capital improvements address on-site infrastructure needs and may also cover-off site public infrastructure such as emergency service facilities, schools and libraries. The fees are usually set during a negotiation process between the developer and the local government. The process is popular with local officials because it provides lump-sum payments instead of a stream of payments and development is paying for itself. However, this method can be inconsistent and can be unfair to the developer.

BONDS

Bonds are commonly used by local governments for funding public facilities such as libraries, hospitals, schools and recreation facilities. Bonds are a form of debt financing that provides local governments with access to the large sums of money required for capital projects. After the facility is constructed, bondholders are repaid over time with either general funds (in the case of general obligation bonds) or with funds generated by the facility itself (in the case of revenue bonds).

Local government bonds that fund new infrastructure associated with residential development are becoming more controversial. The main concern is the fairness of long bond repayment terms to pre-existing residents. New homes generate demand for public services beyond the level needed to serve the current population. New or improved roads and schools are common examples. Existing residents contribute to debt service on the bonds through their tax payments, but depending on where they live, they may receive little or no benefit from the infrastructure constructed.

The equity issues associated with transferring new facilities costs to existing residents are becoming a concern in South Carolina. Last legislative session, the Richland 1 School District requested the state legislature to permit the use of school impact fees so that the district would not have to issue bonds for new school construction.

LOCAL SALES TAXES

Additional local sales taxes are an area for Jasper County and its municipalities to explore. Jasper County, the City of Hardeeville and the Town of Ridgeland already takes advantage of the one percent Local Option Sales Tax (which is used in a majority of counties in the state roll back of property taxes). As well as the one percent School District Tax. Hardeeville instituted a transportation facilities tax in 2005.

State law also permits counties to impose additional local sales taxes for capital projects and transportation facilities.³⁴ Capital projects may include county, municipal, and school facilities and are limited to a maximum term of project completion or seven years, whichever is shorter. For transportation facilities, counties are allowed to establish a transportation authority that has the power to impose a local sales tax or a toll to finance specific projects. Local sales taxes for this purpose are terminated when they have raised sufficient funds for the project(s). Tolls may be imposed no longer than 25 years. Counties may not impose more than a combined rate of one percent in local sales taxes for capital and transportation purposes.

IMPACT FEES

Impact fees are an alternative form of financing on and off-site infrastructure that targets new residents and new businesses. Impact fees are one-time, upfront charges imposed by a local government to recoup or offset a proportionate share of the cost of public infrastructure required to accommodate new growth. Impact fees are derived from the land development regulations and are part of the local government's police powers. Impact fees are assessed in accordance with a predetermined standard formula that takes into account the estimated capacity and cost of the new facilities required. Impact fee formulas also allocate the cost to beneficiaries, which may be a combination of new and old residents.

The assessment of impact fees is based upon three important premises. First, there must be a reasonable connection between the need for a new facility and the growth resulting from new development. Second, there must be a reasonable connection between fee expenditures and benefits received by those paying the fee. And third, the fee charged must be proportional to the cost incurred to accommodate those paying the fee.

The *South Carolina Development Impact Fee Act* establishes the rules under which South Carolina communities can develop and implement an impact fee ordinance.³⁵ The act

³⁴ South Carolina Code, sec. 4-10-300 et seq. (Capital Project Sales Tax Act) and sec. 4-37-10 et seq. (Optional Methods for Financing Transportation Facilities).

³⁵ South Carolina Code, sec. 6-1-910 et seq. (*South Carolina Development Impact Fee Act*)

permits the assessment of impact fees for a number of public facilities that include: water and wastewater; solid waste and recycling; roads, streets and bridges; storm water; public safety facilities; capital equipment and vehicles over \$100,000; and parks, libraries, and recreational facilities. The act does not permit the assessment of school impact fees, usually the largest public facility cost on new residential development. The state requires a community to have a comprehensive plan or capital improvement plan before it can implement impact fees. In addition, the state requires the local government to conduct numerous studies. Developing and implementing an impact fee ordinance is not an easy process. Nevertheless, a number of South Carolina communities have adopted impact fee ordinances. The most comprehensive program is in the City of Mt. Pleasant.³⁶

There are positive and negative aspects to impact fees, as there are with the other techniques for financing the costs of new development. On the negative side, impact fees are inflexible and take time to develop and administer. Also, like most mechanisms they do not adequately capture all the public cost of new development. On the positive side, impact fees can be used for all types of development and add uniformity and fairness through a systematic process. Impact fees help keep property taxes lower by assigning costs to the end user; fee revenue is tied directly to the infrastructure demanded. They allow development to occur even when the local government cannot pay for new facilities through traditional methods. And sometimes, impact fees can even negate opposition to growth. There are a number of other factors associated with impact fees that cannot be addressed within this report format.

OTHER TAXES, FEES AND CHARGES

South Carolina state law also permits counties to obtain revenue from a variety of fees and charges, including business license taxes, inspection fees, tourist infrastructure admissions taxes, and tax increment financing. These methods of raising revenue are targeted toward specific groups and/ or are for specific purposes and may be more acceptable to local decisionmakers and taxpayers than general tax increases (if necessary).

The Town of Ridgeland and the City of Hardeeville (in the conservative base alternative) may be able to obtain additional revenues to address on and off-site costs associated with growth by using some of the financing methods discussed above. How the county and the municipalities choose to allocate the public costs of residential development among existing and new residents is critical to ensuring equity in taxation, adequate public services, and government fiscal stability. The decision must be fair and transparent so all parties can agree and support the same set of rules.

³⁶ Mt. Pleasant, South Carolina Code of Ordinances, Chapter 154: Municipal Impact Fees

GROWTH MANAGEMENT OPTIONS

Most urban and suburban communities in South Carolina have adopted comprehensive land use plans and zoning ordinances,³⁷ Jasper County has both. In fact, South Carolina communities must have a comprehensive plan in place before they are allowed to implement zoning. These police power tools are used by counties and municipalities to manage growth by deciding what land use is most appropriate for specific locations and define the regulations for each zone. The following are brief descriptions of different growth management options.

COMPREHENSIVE LAND USE PLANNING

A comprehensive land use plan serves as a guide for communities to adopt land use regulations. A comprehensive land use plan “generally includes at least (1) a statement of general goals and the specific objectives of the several functional elements composing the plan, and (2) a statement (usually in text and maps) of development and redevelopment proposals...”³⁸ for a specific timeframe. The plan does a good job at setting out the big picture guiding principles and development patterns of a community. However, a problem with comprehensive land use plans is that they address neither the rate nor timing of growth.

ZONING

Zoning is defined as “...public regulation for the use of land. It involves the adoption of ordinances that divide a community into various districts or zones. Each district allows certain uses of land within the zone, such as residential, commercial or industrial. Typical zoning regulations address building height, buildable lot area, setbacks, parking, signage and density.”³⁹ Zoning is very useful in defining what is allowed upon any given site. However, the regulations are sometimes very rigid and most ordinances do not allow for creativity in obtaining the best development.

³⁷ South Carolina Code, sec. 6-29-310 et seq. (*South Carolina Local Government Comprehensive Planning Enabling Act of 1994*)

³⁸ Edward J. Kaiser, David R. Godschalk, and F. Stuart Chapin, Jr., *Urban Land Use Planning*, 4th ed. (Champaign, IL: University of Illinois Press, 1995), p. 63.

³⁹ <<http://www.legaldefinitions.com>>.

MORATORIUM ON DEVELOPMENT

Pace University Law School defines a moratorium on development as “a local law or ordinance that suspends the right of property owners to obtain development approvals while the community takes time to consider, draft and adopt land use plans or rules to respond to new or changing circumstances not adequately dealt with by its current laws.”⁴⁰ A moratorium allows a community to maintain the status quo while it adopts a new program or strategy to meet a perceived problem. The suspension of property rights is a highly contentious act and may be challenged in the courts. Prior to any such action, a community needs to convincingly document that it is facing a true emergency.

URBAN GROWTH BOUNDARIES

Urban Growth Boundaries (UGBs) allow local governments to determine specific areas around a built community where public infrastructure services will be provided. Limiting water and sewer services, rather than extending them constantly to support development, enforces the boundary. The boundary is used as a tool to protect farmland and natural lands from development, promote the development and re-development of land within the urban core, and ensure that public service costs are used efficiently. The state of Oregon has had the most experience using Urban Growth Boundaries. They have not been utilized in South Carolina.

SMART GROWTH

“Smart Growth” refers to development practices that conserve open space, take advantage of existing urban infrastructure, and produce a more compact urban environment. These practices seek, in part, to combat sprawl... automobile-dependent development, highly segregated land uses, and lack of concentration around a central core area or city.”⁴¹ Some of the attributes of Smart Growth are: walkable communities; a range of housing opportunities and choices; distinctive, attractive places and a strong sense of place; predictable, fair, and cost effective development decisions; mixed land uses; preservation of natural lands, farmlands, and critical environmental areas; and development directed toward strengthening existing communities and services. The state of Maryland and a host of other local governments have undertaken Smart Growth initiatives. The New Urbanism movement embodies many of these goals.

⁴⁰ Pace University, Pace Law School, definition of “moratorium on development,” <www.nymir.org/zoning/Glossary.html>.

⁴¹ <http://www.knowledgeplex.org>, Topic: Smart Growth.

SUMMARY

Jasper County is experiencing the effects of rapid growth. This growth is predicted to continue for the next twenty years with the bulk of the development occurring in and around the City of Hardeeville. The fiscal impact model used in this report estimates that additional revenue from growth will cover the growth-related capital and operating expenditures of Jasper County government under every scenario analyzed. However, for the City of Hardeeville and Town of Ridgeland, new revenue is projected to cover growth-related expenditures only under the scenario with the higher average home values.

Recently, the county entered into a joint planning program with the two municipalities. The Jasper County Council, Hardeeville City Council, Ridgeland Town Council, their appointed officials, and their constituents face a number of important decisions that will affect the future of their community.

APPENDIX A: ASSUMPTIONS AND PROJECTION METHODOLOGY

This appendix describes the assumptions and methodology used to estimate the increases in Jasper County government expenditures and revenues associated with projected population growth during the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026.

The procedures used to estimate growth-related expenditures and revenues for the municipal governments are similar, but not identical, to those used for Jasper County government. In the discussion that follows, where methods or assumptions differ we describe those used for Jasper County, followed by those used for Hardeeville and Ridgeland.

EXPENDITURES

An increasing population requires greater expenditures of public funds to maintain the existing quality of public services. However, expenditures don't necessarily increase proportionately with the population. In other words, a ten percent increase in population won't necessarily increase expenditures by ten percent. Some public services such as public safety are highly dependent on personnel for service delivery. Prevailing wage rates and growth trends in wages and fringe benefit costs will drive future spending requirements in these areas. Other public services are more capital-intensive, and the anticipated cost of new facilities will be the main determinant of future spending.

We estimated the population-related increase in county spending in three stages. First we classified county activities by function (public safety, judicial administration, etc.). Next we allocated spending within each functional category into two expenditure types: operations and capital. Finally we estimated the population-related increase in each expenditure type within each functional category.

ASSUMPTIONS

Projecting future expenditures required that we make certain assumptions about the future economic and demographic situation of Jasper County, Hardeeville, and Ridgeland. Our primary assumptions concern the population growth rate, the inflation rate, and the discount rate to be used in computing present values of future expenditures.

Population Growth Rate. Our assumptions about population growth are described in the overview of the fiscal impact assessment (see page 5). In general, these assumptions

are based on the expressed plans of residential developers as related to us by county and municipal officials.

Inflation Rate. The assumed inflation rate is based on data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS). BLS data indicate that over the past ten years the average annual change in the consumer price index for Southern urban areas has been approximately 2.3 percent. We assumed a higher rate of 3 percent because data from recent years indicates an upward trend.

We assumed that most costs would increase at the same rate as inflation. One exception to this default assumption is the cost of health care benefits for employees. BLS data indicate that in recent years the cost of state and local government employee benefits has increased at a rate that is more than four percentage points greater than the rate of inflation. Furthermore, the growth of benefit costs in excess of inflation has been increasing over the past decade; in 1994 employee benefits increased no faster than the rate of inflation. To account for the rapid growth in fringe benefit costs, we assumed that fringe benefit expenditures would increase at a rate seven percentage points greater than the rate of inflation.

Present Values and the Discount Rate. We compare expenditures and revenues occurring over several years by converting them to present values. The present value of a future expenditure is the amount you would need to invest today to have the expenditure amount in the future. For example, if you wanted to have \$1,000 one year from now and could earn 3.5 percent on your investments, you would need to invest \$996.18 today, since $996.18 \times 1.035 = 1000.00$. We have used a discount rate of 3.5 percent in converting future expenditure and revenue amounts to present values.

EXPENDITURE PROJECTION METHODOLOGY

The two expenditure types are operating expenditures and capital expenditures. The methods used to project expenditure increases of each type are described below.

Operating Expenditures: Jasper County. As Jasper County population increases, additional employees will be required to maintain service quality at existing levels. Hiring additional employees will increase the amount of money spent on employee salaries, fringe benefits, and other expenditures related to department operations.

Population increases create a greater need for additional employees in some classifications than in others. We used data from the most recent wage and salary report⁴² produced by the South Carolina Association of Counties to estimate the number of employees in each classification that will need to be hired to maintain service

⁴² S.C. Association of Counties, *2005 Wage and Salary Report* (Columbia SC: S.C. Association of Counties, 2005), < [http://www.sccounties.org/research/ws/2005SalaryReport\(Final\).pdf](http://www.sccounties.org/research/ws/2005SalaryReport(Final).pdf)>.

levels as the population increases. The wage and salary report also provides information about salary ranges for each classification. We estimated salary expenditures for the new employees by assuming that each new employee would be paid a salary equal to the average starting salary for all counties reporting employees in that classification.

We made use of additional information sources, where available. For example, we used information from the FBI⁴³ to estimate the number of civilian employees needed in the Sheriff's Department as population increases. We estimated detention center personnel additions by assuming that each expansion of the detention center would be fully staffed upon construction.

We estimated employee benefit expenditures by examining the relationship between employee benefit and salary expenditures in recent-year budgets. We projected increases in employee benefit expenditures by multiplying annual new salary expenditures in each department by the estimated employee benefit percentages.

As departments increase their workload, non-personnel operating expenditures increase as well as salaries and employee benefits. We projected these expenditures by a method similar to that used for projecting employee benefits. We examined the relationship between non-personnel operating expenditures and salary expenditures reflected in recent-year budgets. These expenditures ranged from as low as 7 percent (in the finance department) to over 200 percent (for emergency services), depending on the department. The difference in expense ratios reflects the varying nature of work done by different departments. We projected increases in non-personnel operating expenditures by multiplying annual new salary expenditures in each department by the non-personnel operating expenditure percentage for that department.

Some public services are provided through other public or private entities. For example, Jasper County makes appropriations to independent fire districts and to a regional library system for fire protection and library services. We projected that these expenditures, adjusted for inflation, will increase proportionately with the population. Jasper County contracts with a private third party for landfill services. We assumed that the total quantity of solid waste placed in the landfill would increase proportionately with the population. Landfill charges are estimated according to the terms of the landfill contract.

Operating Expenditures: Municipalities. Operating expenditures for Hardeeville and Ridgeland were projected using a method similar to that for Jasper County. The primary difference is in the source of information about staffing levels in other municipalities. There is no comprehensive source of municipal staffing data similar to

⁴³ Federal Bureau of Investigation, *Crime in the United States* (Washington, DC: FBI, 2004), Table 80: Full-time Law Enforcement Employees by Metropolitan and Nonmetropolitan Counties by State.

that available for counties. We gathered information about municipal staffing by examining the budget documents of cities of various sizes. Using that information, we estimated staff ratios, average salaries, and operating expenditure ratios for five of the six functional categories⁴⁴ for small, medium, and large cities. Table 66 presents this staff ratio and salary data.

We used information from the FBI⁴⁵ to estimate staff requirements for sworn officers and civilian employees in municipal police departments. Table 67 presents the actual police department staff levels for selected South Carolina municipalities and the projected staff levels for Hardeeville and Ridgeland.

⁴⁴ Public safety (police and fire department) staffing was estimated using different data sources, which are described later in this report.

⁴⁵ Federal Bureau of Investigation, *Crime in the United States* (Washington, DC: FBI, 2004), Table 78: Full-time Law Enforcement Employees by City by State.

Table 66 - Municipal Staff Ratios, Operating Expenditures, and Salaries; Small, Medium, and Large Cities

Functional Category	Small Cities (up to 38,000 population)			Medium Cities (38,001 to 75,000 population)			Large Cities (population greater than 75,000)		
	Staff Ratio (FTE/1000)	Operating Expenditures	Average Salary	Staff Ratio (FTE/1000)	Operating Expenditures	Average Salary	Staff Ratio (FTE/1000)	Operating Expenditures	Average Salary
General Administration	0.60	21%	40,000	0.85	32%	45,000	0.85	32%	45,000
Planning and Community Development	0.20	57%	48,000	0.40	40%	46,000	0.60	16%	37,000
Judicial Administration	0.20	22%	40,000	0.40	22%	40,000	0.40	22%	40,000
Public Works	2.60	62%	30,000	2.60	62%	30,000	2.60	62%	30,000
Public Works (alternative)^a	1.40	65%	27,000						
Recreation and Culture	0.20	74%	43,000	0.60	63%	31,000	1.00	51%	24,000

a - This alternative staff ratio is used for the Ridgeland projection. It reflects the lack of a need for certain engineering and inspection that are required only in larger cities.

Table 67 -- Police Department Staff Levels, Selected South Carolina Cities

Municipality	Total Staff	Sworn Officers	Civilians	Population	Sworn Officers/1000 population	Civilians/ Sworn Officer
Hardeeville (projected)	518	392	126	126,813	3.1	0.32
Columbia	377	302	75	117,357	2.6	0.25
Charleston	487	356	131	101,024	3.5	0.37
North Charleston	344	270	74	81,577	3.3	0.27
Greenville	230	185	45	55,926	3.3	0.24
Mount Pleasant	167	127	40	54,788	2.3	0.31
Florence	111	88	23	30,267	2.9	0.26
Anderson	119	90	29	25,563	3.5	0.32
North Augusta	63	47	16	18,413	2.6	0.34
Ridgeland (projected)	56	44	12	14,591	3.0	0.27
West Columbia	52	41	11	12,920	3.2	0.27
Lexington	34	29	5	11,746	2.5	0.17
Georgetown	46	38	8	8,951	4.2	0.21
Liberty	14	13	1	3,002	4.3	0.08
Ridgeland (current)	11	10	1	2,591	3.9	0.10
Hardeeville (current)	18	15	3	1,813	8.3	0.20

To estimate fire department personnel requirements we consulted with the fire chiefs of each municipality about their perceptions of overall requirements related to population growth. We also gathered information from the fire department web pages of South Carolina cities of various sizes. Table 68 presents this fire department staffing data.

Table 68 - Fire Protection Staffing, Selected Municipalities

Municipality	Population (2003)	Paid Firefighters	Firefighters/1000 population	Companies		
				Rescue	Engine	Aerial
Columbia ⁴⁶	117,557	201	1.7	1	10	3
Charleston ⁴⁷	101,024	240	2.4	--	16	3
North						
Charleston ⁴⁸	81,577	200	2.5	--	--	--
Greenville ⁴⁹	55,926	132	2.4	2	6	3
Mt. Pleasant ⁵⁰	54,788	120	2.2	1	5	3
Anderson ⁵¹	25,563	53	2.1	1	3	2
Georgetown ⁵²	8,951	44	4.9	1	4	1
Liberty ⁵³	3,002	11	3.7	1	3	0

For the City of Hardeeville, we used the information in Table 68 to estimate the number of rescue, engine, and aerial companies required at different population levels as Hardeeville’s population increases over the study period. We then determined the number of personnel that would be required to fully staff each company with full-time firefighters.

The information in Table 68 indicates that the Town of Ridgeland currently has the appropriate number of fire companies for its projected final population, except for the possible addition of an aerial company. We assumed that as its population grows Ridgeland would add full-time paid firefighters to its staff and decrease its reliance on

⁴⁶ Sources: <<http://www.columbiasc.net/fire/stations.htm>> and <http://www.columbiasc.net/fire/org_chart.htm>

⁴⁷ Source: <<http://www.ci.charleston.sc.us/shared/docs/0/m%20pg%202005-214%20fire%20dept.pdf>>

⁴⁸ Source: <http://www.northcharleston.org/Departments/PublicSafety_Fire.aspx>

⁴⁹ Source: <http://www.greatergreenville.com/city_services/firesta.asp>

⁵⁰ Source: <<http://www.mpsfd.com/index.cfm?section=6&page=2>>

⁵¹ Sources:

<http://www.cityofandersonsc.com/budget/general_fund/fire/fire_personnel_authorizations.pdf> and <http://www.cityofandersonsc.com/budget/general_fund/fire/fire_fire.pdf>

⁵² Sources: <<http://www.georgetowncityfire.org/admin/personnel.html>> and <<http://www.georgetowncityfire.org/Equipment/equipment.html>>

⁵³ Sources: <<http://www.libertysc.com/newsletter/spring2005.pdf>> and <<http://www.libertysc.com/fire/firetrucks.htm>>

unpaid volunteers. Having more fire fighters on call during each shift will require an expansion of the existing fire station. However, Ridgeland is currently in need of a new fire station even if no significant population growth was projected. For this reason, we allocated only half the expected cost of a new fire station as a growth-related expenditure. Similarly, we allocated half the expected cost of a ladder truck as a growth-related expenditure.

Capital Improvement Expenditures: Jasper County. The bulk of capital expenditures fell into two categories: the need for expanded office facilities to accommodate a larger staff and the need for additional passenger vehicles and other rolling stock to be used by new employees. We assumed that each new staff member would require the addition of 300 square feet of office or other facility space.⁵⁴ We assumed that initial year construction costs would be \$200 per square foot, inclusive of furnishings and equipment.

We obtained information about requirements for passenger vehicles and other rolling stock from examining county asset lists and budget documents. We converted the estimated new vehicle cost per employee into an annual cost by dividing it by the estimated number of years between replacements. These annual vehicle purchase expenditures were counted among the capital expenditures.

We also assumed that the county detention center will need to expand as the population grows. We assumed that incarceration rates would remain constant and that additional facilities similar in size and cost to the County's existing detention center would be constructed in the year they were needed.

Other capital expenditures include those needed to purchase additional park land to serve a growing population. We assumed that Jasper County would require 7.5 acres per 1,000 residents.⁵⁵ We also assumed that ball fields, tennis courts, other sports facilities, along with community and neighborhood parks would be the responsibility of the municipal governments.

Capital Improvement Expenditures: Municipalities. Capital expenditures for municipal office space and vehicles were estimated by the same method as for Jasper County. Cost estimates for fire station facilities and fire fighting equipment were developed with the help of Fire Chief John Ekaitis.

Other capital expenditures include those needed for additional park and recreation facilities. We assumed that Hardeeville and Ridgeland would add community and

⁵⁴ Based on data contained in Arthur C. Nelson, *Planners' Estimating Guide*, (Chicago: Planners Press, 2004), Table 4-2: Gross Building Space Occupied per Employee.

⁵⁵ Based on data contained in Arthur C. Nelson, *Planners' Estimating Guide*, (Chicago: Planners Press, 2004), Table 6-12: Recommended Standards for Selected Recreational Facilities.

neighborhood parks at a rate of 8.5 acres per 1,000 residents.⁵⁶ We assumed that sports facilities would be added as indicated in Table 69.

Table 69 - Sport Facility Requirements⁵⁷

Facility Type	Number Required per 1,000 Population
Ball Fields	0.6
Soccer Fields	0.1
Tennis Courts	1
Gymnasium/Community Center	0.1
Swimming Pool	0.4

REVENUES

As population increases, new construction and increased commercial activity expands the county’s tax base. The expanding tax base and increased commercial activity lead to increases in county tax and non-tax revenues. The main revenue sources that are expected to grow with population are property taxes, sales taxes, and non-tax revenue.

We estimated population-related revenue increases in two stages. First, for each revenue source, we estimated the increase in tax base or commercial activity associated with the increase in population. Then, we estimated the increase in revenue associated with the increase in tax base or commercial activity.

ASSUMPTIONS

Projecting future revenues required that we make certain assumptions about Jasper County’s future economic and demographic situation. Our primary assumptions concern average household sizes, average new home values, and the percentage of new residences that are single-family homes. For population growth rate, the inflation rate, and the discount rate we used the same assumptions as in estimating expenditure increases.

Household Size. We assumed an average household size equal to the state average of 2.5 persons per household.

⁵⁶ Based on data contained in Arthur C. Nelson, *Planners’ Estimating Guide*, (Chicago: Planners Press, 2004), Table 6-12: Recommended Standards for Selected Recreational Facilities.

⁵⁷ April 5, 2005, Memorandum from C. Gregory Dale and Wendy E. Moeller to Shane Haynes and Andrew Fulgrum, *Public Facilities Demand – Draft*.

Home Value. Our assumptions about average home values are described in the overview of the fiscal impact assessment (see page 7).

Proportion of Owner-Occupied Residences. We assumed that 90 percent of new residential construction will be owner-occupied.

Tax Rates, Assessment Ratios, and Reassessment. For the purposes of this study, we assumed that property tax millage rates will remain at current levels. We assumed that assessment ratios would remain as specified by existing law. We did not attempt to account for the effects of any reassessments scheduled to occur during the period under study.

REVENUE PROJECTION METHODOLOGY

Different estimation procedures were used for each revenue source. The methods used to project increases in revenue from each source are described below.

Property Tax Revenues. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, agricultural property, and manufacturing and industrial property. Personal property includes vehicles owned by individuals and business personal property. Utility and motor carrier property is also taxed.

The population-related increases in property tax revenues from each class of property were estimated using the same overall process. First, we estimated the effect of population growth on total property valuation within the property class. Then we multiplied the valuation increase by the applicable assessment ratios. Next, we estimated the portion of the increase in assessed valuation that will be located within each municipality. Finally we multiplied the increase in assessed valuation by the applicable millage rate to estimate the amount of new tax revenue. The methods used for each property class are discussed separately below.

Residential: We estimated the population-related increase in valuation of residential property for each year by multiplying the projected annual new residential units by the average new residence value. Next, total residential property value was apportioned between owner-occupied and rental property by multiplying by the owner-occupied residence percentage. The assessed value was calculated by multiplying valuation by the appropriate assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on owner-occupied housing within each jurisdiction.

Commercial: Commercial property consists of all non-industrial business property. We assumed that commercial property valuation will grow at the same rate as net taxable retail sales. The assessed value was calculated by multiplying the valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to

project the increase in property tax revenue from taxes on commercial and rental property.

Agricultural property: We assumed there would be no population-related increase in property tax revenue from agricultural property.

Manufacturing property: Changes in real per capita valuation of manufacturing property depend on the decisions of manufacturing firms to locate new facilities within the county or to relocate facilities elsewhere. We assumed there would be no population-related increase in property tax revenue from manufacturing property.

Personal property: We assumed that real per capita personal property value will remain constant at its existing level. New personal property value is apportioned to the two municipalities in proportion to their share of total population growth. The assessed value was calculated by multiplying the valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on personal property.

Business personal property: We assumed that business personal property valuation will be equal to 15 percent of commercial property valuation. The assessed value was calculated by multiplying the valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on business personal property.

Motor carrier property: We assumed there would be no population-related increase in property tax revenue from motor carrier property.

Utility property: We assumed that real per capita utility property value will be equal to the current state average, as calculated from data obtained from the S.C. Department of Revenue.⁵⁸ The assessed value was calculated by multiplying the valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on utility property.

Other Tax Revenue. Other taxes collected by Jasper County and the two municipalities are the local option sales tax (LOST) and accommodations and hospitality taxes.

Accommodation and hospitality taxes: We assumed there would be no population-related increase in accommodations and hospitality taxes.

Local option sales tax: A large portion of the revenue from the local option sales tax (LOST) is used for property tax rollback; the remainder is distributed between the

⁵⁸ S.C. Department of Revenue, 2003-2004 Annual Report, (Columbia, SC: S.C. DOR, 2004), <<http://www.sctax.org/NR/rdonlyres/AD6A18F4-105B-430A-B8DB-95D370F01E90/0/annualreport2004jdctoend.pdf>>

county government and the municipal governments according to a formula specified by state law. The revenue generated by the LOST depends on the level of net taxable sales within the county.

Projections of future net taxable sales must be made carefully. Jasper County has much greater per capita taxable sales than any other county of its approximate size (see Table 70). This high level of retail sales is a result of Jasper County’s proximity to the coast and the several miles of interstate highway that run through the county. Both of these factors result in many purchases being made by non-residents.

**Table 70 - Per Capita Net Taxable Sales, S.C.
Counties with Population 25,000 or less, 2003**

County	Population (2003)	Per Capita Net Taxable Sales⁵⁹
Allendale	10,934	\$2,194
Bamberg	16,040	4,093
Barnwell	23,369	5,716
Calhoun	15,367	2,623
Edgefield	24,703	2,710
Fairfield	23,840	4,079
Hampton	21,391	4,349
Jasper	20,998	11,598
Lee	20,331	2,610
McCormick	10,233	2,396
Saluda	19,087	2,752

Using data from all counties, we estimated a model of per capita taxable sales as a function of county population and proximity to the coast. According to this model, a population with Jasper County’s population would be expected to have per capita retail sales between 30 and 60 percent of Jasper County per capita sales. Hampton County is very similar to Jasper County in terms of population, income, and poverty rate. Hampton County has per capita retail sales that are approximately 38 percent of Jasper

⁵⁹ Calculated from data obtained from S.C. Department of Revenue, 2003-2004 Annual Report, (Columbia, SC: S.C. DOR, 2004), <<http://www.sctax.org/NR/rdonlyres/AD6A18F4-105B-430A-B8DB-95D370F01E90/0/annualreport2004jdctoend.pdf>>

County's. Based on this information, we assumed that 40 percent of Jasper County taxable sales (and by extension 40 percent of all commercial activity) is associated with the resident population. The remaining 60 percent is assumed to be attributable to visitors from outside the county.

However, as a county grows in population its per capita retail sales tend to increase. The larger local market provided by the larger population encourages the construction of new retail establishments selling a greater variety of goods. The larger and more varied retail base attracts additional shoppers from outside the community and also encourages local residents to make more of their purchases locally. We analyzed sales data for all South Carolina counties and determined that a 1.0 percent increase in county population is associated with a 0.44 percent increase in per capita retail sales. The projected real per capita net taxable sales used in performing our estimates are presented in Table 71.

We assumed that 90 percent of new taxable sales will occur within the two municipalities. Sales were apportioned between the municipalities according to their populations.

Non-tax Revenue. Each of the local governments has a variety of non-tax sources of revenue including licenses and permits, charges for services, and fines. The sources that are related to commercial activity, such as business licenses, were projected using a method similar to that used for retail sales. Sources that are related more directly to population, such as EMS charges, were projected by assuming constant real per capita values based on current levels determined from budget documents. Building permit revenue was calculated as a percentage of the value of new residential and commercial development. For Ridgeland, we assumed that real per capita transfers from the Water Sewer Fund to the General Fund would remain constant at their FY2004 level.

**Table 71 - Projected Real Per Capita Taxable Sales,
Jasper County, 2007-2026**

Year	Population Increase	Per Capita Sales	Per Capita Sales Increase
2006	--	5,070	--
2007	37.5%	5,906	16.5%
2008	27.2%	6,614	12.0%
2009	21.4%	7,237	9.4%
2010	17.6%	7,799	7.8%
2011	15.0%	8,313	6.6%
2012	13.0%	8,790	5.7%
2013	11.5%	9,236	5.1%
2014	10.3%	9,656	4.6%
2015	9.4%	10,055	4.1%
2016	8.6%	10,434	3.8%
2017	7.9%	10,796	3.5%
2018	7.3%	11,144	3.2%
2019	6.8%	11,478	3.0%
2020	6.4%	11,800	2.8%
2021	6.0%	12,112	2.6%
2022	5.7%	12,413	2.5%
2023	5.4%	12,706	2.4%
2024	5.1%	12,990	2.2%
2025	4.8%	13,266	2.1%
2026	4.6%	13,536	2.0%