An Assessment of the Fiscal Impact of the Clarendon Farms and McLeod Farm Developments on *Beaufort County, South Carolina*

A Report To The County Council of Beaufort County

By

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EXECUTIVE SUMMARY

The City of Beaufort has announced plans to annex two properties comprising over 5,000 acres. As currently negotiated, the two properties would be allowed to develop at a density of three residential units per acre – a nine-fold increase compared to the density allowed if the properties remained within the unincorporated portion of Beaufort County.

At the request of Beaufort County, we analyzed the impact of this proposed development on the finances of Beaufort County government, the Beaufort County School District, and the Burton Fire District over a twenty five-year period. We analyzed two development scenarios: one with relatively large households consisting primarily of families with students and one with relatively small households consisting primarily of childless retirees.

We also investigated the likely impact of the development on Marine Corps Air Station – Beaufort and the Beaufort Memorial Hospital System. The results of our analysis are summarized below.

BEAUFORT COUNTY GOVERNMENT

For the first development scenario, consisting primarily of families with school-age children, we project that the expenditures required to serve new residents of the development will exceed the additional revenues generated. We estimate the deficit under this scenario will exceed $164 million, or approximately $18,000 per new household.

For the second development scenario, consisting primarily of childless retirees, we also project that the expenditures required to serve new residents of the development will exceed the additional revenues generated. We estimate the deficit under this scenario to be almost $140 million, or approximately $15,000 per new household.

Under either scenario we project that new revenues will be sufficient to cover the increase in operating expenditures associated with the development. The cost of capital improvements, however, will produce a deficit.

BEAUFORT COUNTY SCHOOL DISTRICT

For the first development scenario, consisting primarily of families with school-age children, we project that the expenditures required to serve new residents of the development will exceed the additional revenues generated. We estimate the deficit

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under this scenario will exceed $159 million, or approximately $17,000 per new household.

For the second development scenario, consisting primarily of childless retirees, we project that revenues will exceed expenditures. We estimate the surplus under this scenario will exceed $23 million, or approximately $2,400 per new household.

BURTON FIRE DISTRICT

For both development scenarios, we project that revenues will exceed expenditures. In the first scenario, we project that the surplus will exceed $121 million, or approximately $12,000 per new household. In the second scenario, we project that the surplus will exceed $130 million, or approximately $13,000 per new household.

OTHER IMPACTS

The high-density development contemplated in the Clarendon Farms and McLeod Farm developments could also negatively impact the quality of the area's waterways, the availability of workforce housing, traffic congestion caused by in-commuting workers, and hurricane evacuations along Highway 21. Encroachment of development into the Marine Corps Air Station's noise contours may negatively impact the Air Station's mission, as well. Marine Corps officials indicate that such a situation could possibly make future base closure more likely. The Beaufort Memorial Hospital System anticipates no major negative impacts, with the possible exception of a shortage of affordable housing for non-physician medical staff.

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INTRODUCTION

Beaufort County is one of the state's fastest growing counties. From 2000 to 2005, the U.S. Census Bureau reported that the county was the fourth fastest growing county in the state, growing at an annual average rate of 2.6%.[1]

The City of Beaufort has proposed the annexation of two large parcels of land. The Clarendon Farms and McLeod Farm developments are located in Northern Beaufort County, adjacent to the Marine Corps Air Station and along the Whale Branch of the Broad River. The current Beaufort County zoning ordinances permit development of the two parcels at a maximum density of one residential unit per three acres. According to the development agreements between the City of Beaufort and the developers, both parcels will be allowed, after annexation, to develop at a maximum density of three units per acre – a nine-fold increase in development density.[2]

Although the developments would be within the corporate limits of the City of Beaufort, Beaufort County government and other local government service providers would be responsible for providing certain local government services. Furthermore, other government agencies and public service providers could be impacted as well.

Concerned about the potential impacts of the increased development density, Beaufort County requested and received several weeks in which to analyze the impact of the proposed development. This report, prepared at the request of the Beaufort County Council, presents an estimate of the fiscal impact of the proposed Clarendon Farms and McLeod Farm developments on Beaufort County government and other public service providers. The report is organized into nine sections. The current section introduces the report, and discusses research concerning the fiscal impact of population growth. The second section provides an overview of the fiscal impact analysis and presents the demographic assumptions and population and student enrollment projections that are used as the basis of the analysis. The third section presents estimates of the direct fiscal impact of the developments on Beaufort County government. The fourth section discusses indirect and unquantified impacts on Beaufort County. The fifth section presents estimates of the fiscal impact on the Beaufort County School District. The sixth section presents an estimate of the impact on the Burton Fire District. The seventh section discusses the sensitivity of the estimates to changes in the development schedule. The eighth section discusses impacts on other government agencies and public service providers. The final section concludes the report. Information about key assumptions and projection methodology is contained in an appendix.

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[1] Jim DuPlessis, "S.C. population is up, but pay still lag". *The State*, p. B7, April 2, 2006.

[2] The development agreements and other documents related to this issue are available for download at <http://www.bcgov.net/Public_Info_Officer/Clarendon_Mcleod_Anex/AnnexationList.php>.

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THE FISCAL IMPACT OF POPULATION GROWTH

Until the last few decades, population growth was generally considered to have a positive fiscal 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 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."[3]

A large body of literature exists that analyzes the costs to expand government services and infrastructure to serve new residents and businesses.[4] 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),[5] transportation and commuting costs,[6] the social consequences of suburban growth,[7] the impact of sprawl,[8] and techniques to reduce public and private costs through development practices, i.e., "Smart Growth".[9]

Much of the research analyzing the fiscal impact of growth has concluded that residential development does not pay for itself. The American Farmland Trust (AFT)

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

[4] See, for example, publications on this topic available from the following organizations: the Lincoln Institute for Land Policy, <http://www.lincolninst.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>.

[5] 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>.

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

[7] 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>.

[8] 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>.

[9] 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>.

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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.[10] In Culpepper County, Virginia, researchers found that residential development costs $1.25 in county services for every $1 of revenue.[11] 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.[12] In previous research, we have found that residential growth will typically generate sufficient revenue to fund the required increase in local government operating expenses. Only under certain circumstances, however, does it generate enough revenue to pay for all necessary capital expenditures.[13]

Conclusions such as those above are disputed 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.[14] 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.

Every local government faces a different situation. The fiscal impact of residential development varies depending on characteristics of the proposed development projects and the revenue structure of the local government. Local officials should be wary of merely assuming that residential growth will provide the revenue needed to maintain service levels without increasing tax rates.

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

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

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

[13] Taylor, Charles D. and William E. Molnar. February 2006. *Population Growth and Local Government Finance: What Have We Learned?* [STI Policy Brief] (Clemson, SC: Strom Thurmond Institute, Clemson University), <http://www.strom.clemson.edu/publications/taylor/popgrowth_0206.pdf>.

[14] 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>.

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FISCAL IMPACT ANALYSIS - OVERVIEW

For the twenty five-year period beginning in fiscal year 2007 and ending in fiscal year 2031, we estimated the increases in local government expenditures and revenues associated with projected population growth resulting from the annexation by the City of Beaufort and subsequent development of the Clarendon Farms and McLeod Farm properties. We analyzed the fiscal impact of the developments on Beaufort County government, the Beaufort County School District, and the Burton Fire and Rescue District. This section of the report presents the demographic assumptions that are 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. Detailed descriptions of the methodology and key assumptions are provided in the appendix.

DEVELOPMENT DENSITY AND SCHEDULE

The two development projects encompass a total of 5,262 acres total land area – 4,292 for Clarendon Farms and 970 for McLeod Farm. The agreements between the City of Beaufort and the developer of each project [15] permit residential development at an overall density of up to 3 dwelling units per acre. The development agreements also contemplate that a portion of each project will contain retail commercial establishments and other non-residential uses. If residential development within each project occurs at the maximum permitted density, then the two developments will contain a total of 16,335 dwelling units – 13,325 in Clarendon Farms and 3,010 in McLeod Farm.

The terms of the two development agreements differ. The Clarendon Farms agreement has a fifty-year term and the McLeod Farm agreement has a twenty-year term. According to the development agreement, development of the Clarendon Farms property is expected to occur over a twenty five-year to thirty five-year period sometime during the fifty-year term of the agreement. The McLeod Farm property is expected to be developed over a ten-year period. In both cases, the developers are allowed to adjust their development schedules to meet market demand. For the purpose of this analysis, we have assumed that development of the Clarendon Farms property will occur over the entire twenty-five year study period and development of the McLeod Farm property will occur over the first ten years of the study period.[16] In both cases, we have assumed that development of each property will occur at a constant rate over its respective development period. The cumulative number of dwelling units for

[15] The development agreements and other documents related to this issue are available for download at <http://www.bcgov.net/Public_Info_Officer/Clarendon_Mcleod_Anex/AnnexationList.php>.

[16] The effect on our estimates of changes in the development schedule are discussed in a separate section.

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each project and for both projects combined during each year of the study period is presented in Table 1.

Table 1 - Projected Dwelling Units in Clarendon Farms and McLeod Farm, 2007-2031

Year	Clarendon Farms	McLeod Farm	Total
2007	533	301	834
2008	1,066	602	1,668
2009	1,599	903	2,502
2010	2,132	1,204	3,336
2011	2,665	1,505	4,170
2012	3,198	1,806	5,004
2013	3,731	2,107	5,838
2014	4,264	2,408	6,672
2015	4,797	2,709	7,506
2016	5,330	3,010	8,340
2017	5,863	3,010	8,873
2018	6,396	3,010	9,406
2019	6,929	3,010	9,939
2020	7,462	3,010	10,472
2021	7,995	3,010	11,005
2022	8,528	3,010	11,538
2023	9,061	3,010	12,071
2024	9,594	3,010	12,604
2025	10,127	3,010	13,137
2026	10,660	3,010	13,670
2027	11,193	3,010	14,203
2028	11,726	3,010	14,736
2029	12,259	3,010	15,269
2030	12,792	3,010	15,802
2031	13,325	3,010	16,335

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POPULATION AND STUDENT ENROLLMENT PROJECTIONS

The fiscal impact of the two development projects depends, in large part, on population. For the school district, the fiscal impact depends on the increase in student enrollment. Population and student enrollment projections depend on our assumptions about the demographic characteristics of the average household within each development.

An examination of the demographic characteristics of the households in each of Beaufort County's census tracts reveals two primary types of households: relatively small households with few students and larger households with greater numbers of students.[17] Given the uncertainty about the type of households expected to occupy the new residences, we felt it prudent to examine the fiscal impacts of two different scenarios: one with relatively large households consisting primarily of families with students and one with relatively small households consisting primarily of retirement age persons. Table 2 presents our demographic assumptions about new residents in each scenario. The assumptions of Table 2 are applied to the development schedules presented in Table 1 to produce the population and student yield projections presented in Table 3 and Table 4. The population and student enrollment projections take into account the aging and eventual graduation of incoming students. The procedure used in preparing the projections is explained in the appendix.

Table 2 – Key Demographic Assumptions, Scenarios One and Two

	Scenario One		Scenario Two	
Project	**Persons per Household**	**Students per Household**	**Persons per Household**	**Students per Household**
Clarendon Farms	**2.50**	**0.36**	**2.16**	**0.16**
McLeod Farm	**2.69**	**0.52**	**2.69**	**0.52**

[17] Census tract data used in our analysis is presented in the appendix.

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Table 3 -- Projected Population and Student Enrollment, Clarendon Farms and McLeod Farm, 2007-2031, Scenario One

	Population			Student Enrollment		
Year	Clarendon Farms	McLeod Farm	Total	Clarendon Farms	McLeod Farm	Total
2007	1,333	810	2,143	192	157	349
2008	2,652	1,609	4,261	370	303	673
2009	3,959	2,397	6,356	536	438	974
2010	5,252	3,174	8,426	688	562	1,250
2011	6,533	3,942	10,475	828	677	1,505
2012	7,804	4,701	12,505	958	783	1,741
2013	9,064	5,452	14,516	1,077	881	1,958
2014	10,315	6,196	16,511	1,187	972	2,159
2015	11,562	6,935	18,497	1,293	1,058	2,351
2016	12,800	7,668	20,468	1,390	1,138	2,528
2017	14,010	7,607	21,617	1,459	1,077	2,536
2018	15,219	7,551	22,770	1,527	1,021	2,548
2019	16,427	7,501	23,928	1,594	971	2,565
2020	17,634	7,455	25,089	1,660	925	2,585
2021	18,842	7,414	26,256	1,727	884	2,611
2022	20,050	7,377	27,427	1,794	847	2,641
2023	21,260	7,343	28,603	1,863	813	2,676
2024	22,470	7,312	29,782	1,932	782	2,714
2025	23,683	7,283	30,966	2,004	753	2,757
2026	24,895	7,257	32,152	2,075	727	2,802
2027	26,110	7,232	33,342	2,149	702	2,851
2028	27,325	7,210	34,535	2,223	680	2,903
2029	28,541	7,189	35,730	2,298	659	2,957
2030	29,758	7,170	36,928	2,374	640	3,014
2031	30,976	7,151	38,127	2,451	621	3,072

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Table 4 -- Projected Population and Student Enrollment, Clarendon Farms and McLeod Farm, 2007-2031, Scenario Two

	Population			Student Enrollment		
Year	Clarendon Farms	McLeod Farm	Total	Clarendon Farms	McLeod Farm	Total
2007	1,151	810	1,961	85	157	242
2008	2,296	1,609	3,905	164	303	467
2009	3,435	2,398	5,833	237	439	676
2010	4,569	3,175	7,744	305	563	868
2011	5,697	3,943	9,640	367	678	1,045
2012	6,820	4,702	11,522	424	784	1,208
2013	7,939	5,453	13,392	477	882	1,359
2014	9,054	6,197	15,251	526	973	1,499
2015	10,166	6,935	17,101	572	1058	1,630
2016	11,274	7,668	18,942	614	1138	1,752
2017	12,368	7,600	19,968	642	1070	1,712
2018	13,458	7,538	20,996	666	1008	1,674
2019	14,550	7,482	22,032	692	952	1,644
2020	15,641	7,432	23,073	717	902	1,619
2021	16,734	7,388	24,122	744	858	1,602
2022	17,827	7,349	25,176	771	819	1,590
2023	18,922	7,314	26,236	800	784	1,584
2024	20,018	7,284	27,302	830	754	1,584
2025	21,116	7,257	28,373	862	727	1,589
2026	22,214	7,232	29,446	894	702	1,596
2027	23,314	7,211	30,525	928	681	1,609
2028	24,414	7,191	31,605	962	661	1,623
2029	25,515	7,173	32,688	997	643	1,640
2030	26,618	7,157	33,775	1,034	627	1,661
2031	27,721	7,141	34,862	1,071	611	1,682

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EXPENDITURE ESTIMATES

A larger population requires greater government expenditures for four reasons. First, additional local government employees are needed to provide existing local government services to new residents while maintaining the level of service provided to existing residents. For example, as new areas are developed and the population increases, additional road and bridge workers are required to maintain the road system. 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 roads, and for additional equipment such as fire engines, recreation equipment, and road repair equipment. Fourth, residents in larger communities often desire new government facilities that aren't available in areas with smaller populations.

We classified county governmental activities into seven functional categories. We then estimated the increase in government expenditures in each category associated with the increase in population under each scenario. We report estimates for the Beaufort County School District and Burton Fire and Rescue District separately.

REVENUE ESTIMATES

An increase in population leads to increased local government revenues in three 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 contribute to increases in non-tax revenues, such as fines, fees, and permits. Third, the larger population provides a larger market for locally-provided goods and services, which increases local business investment and generates additional property tax revenue.

We estimated the increase in government revenues associated with the population increase projected under each scenario. A large portion of local government 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. We made slightly different assumptions about average home values under each scenario. Our assumptions are based, in part, on statements of the developers' intentions and an analysis of average home values in other parts of Beaufort County. Our assumptions about average residence values are summarized in Table 5. Other key assumptions are explained in the appendix.

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Table 5 -- Average Initial Residential Unit Values, Scenarios One and Two

Project	Scenario One	Scenario Two
Clarendon Farms	$350,000	$388,000
McLeod Farm	180,000	180,000

The next sections of the report summarize the results of the fiscal impact analysis for each local government. The Beaufort County results are presented first, followed by those for the Beaufort County School District, and then by those for the Burton Fire and Rescue District.

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FISCAL IMPACT ANALYSIS – BEAUFORT COUNTY

For the twenty five-year period beginning in fiscal year 2007 and ending in fiscal year 2031, we estimated the direct impacts on Beaufort County government expenditures and revenues of population growth projected under each of the two scenarios. 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 the appendix.

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 Beaufort County government. These expenditures also include payments by Beaufort 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 payments to providers of medical services at the detention center.

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

The estimated increase in expenditures of each type within each functional category is presented for both scenarios in Table 6. Under either of the two scenarios, growth-related expenditures are projected to exceed $200 million. Operating expenditures comprise the majority of the expenditures, approximately 70 percent. Public safety, public works, and recreation and culture are the functional categories with the largest projected impact on total expenditures.

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Table 6 – Estimated Expenditures by Type and Functional Category, Present Value, Scenarios One and Two, Beaufort County, 2007 - 2031

	Scenario One			Scenario Two		
Category	**Operating**	**Capital**	**Total**	**Operating**	**Capital**	**Total**
General Administration	$8,423,000	$304,000	$8,726,000	$7,905,000	$243,000	$8,148,000
Planning and Community Development	-	-	-	-	-	-
Tax Administration	2,818,000	348,000	3,166,000	2,319,000	280,000	2,599,000
Judicial Administration	6,433,000	304,000	6,736,000	6,021,000	304,000	6,325,000
Public Safety	74,952,000	9,967,000	84,918,000	68,327,000	9,017,000	77,344,000
Public Works	14,290,000	127,947,000	142,237,000	12,926,000	127,714,000	140,640,000
Recreation and Culture	53,603,000	54,559,000	108,161,000	49,239,000	49,908,000	99,147,000
Total	**$160,519,000**	**$193,429,000**	**$353,944,000**	**$146,737,000**	**$187,466,000**	**$334,203,000**

Estimated expenditure increases within each functional category for each of the two scenarios 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 description of the additional full-time personnel[18] and facilities required to serve the increase in population under each scenario. Additional estimate details are available in the appendix.

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 building maintenance department. 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 7.

[18] 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.

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Table 7 – General Administration, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 3 building maintenance, 1 management information system, and 4 finance and accounting	$8,423,000
Capital	Additional office space with associated land	304,000
Total for Scenario One		**$8,726,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 3 building maintenance, 1 management information system, and 3 finance and accounting	$7,905,000
Capital	Additional office space with associated land	243,000
Total for Scenario Two		**$8,148,000**

Planning and Community Development. Expenditures in the planning and community development functional category include those related to planning, building and zoning, and economic development. We project no increase in planning and community development expenditures under either of the scenarios.

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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, 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 levels. Increases in tax administration expenditures are summarized in Table 8.

Table 8 – Tax Administration, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 1 tax clerk, 2 appraisers, and 1 GIS operator	$2,818,000
Capital	Additional office space with associated land; passenger vehicles for appraisers	348,000
Total for Scenario One		**$3,166,000**
Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 1 tax clerk, 1 appraiser, and 1 GIS operator	$2,319,000
Capital	Additional office space with associated land; passenger vehicles for appraisers	280,000
Total for Scenario Two		**$2,599,000**

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, and magistrates. 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 9.

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Table 9 – Judicial Administration, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 1 magistrate, 1 deputy clerk of court, and 3 clerks	$6,433,000
Capital	Additional office and court space with associated land	304,000
Total for Scenario One		**$6,736,000**
Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 1 magistrate, 1 deputy clerk of court, and 3 clerks	$6,021,000
Capital	Additional office and court space with associated land	304,000
Total for Scenario Two		**$6,325,000**

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. 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 personnel 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 and increased expenditures for medical and food services.

A larger population will also require additional EMTs, paramedics, and dispatchers. 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.

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Increases in public safety expenditures are summarized in Table 10. Summaries for each subfunction are presented in Table 11 through Table 13.

Table 10 – Public Safety, Summary, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	See Table 11 through Table 13 for details by subfunction	$74,952,000
Capital		9,967,000
Total for Scenario One		**$84,918,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	See Table 11 through Table 13 for details by subfunction	$68,327,000
Capital		9,017,000
Total for Scenario Two		**$77,344,000**

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Table 11 – Public Safety, Law Enforcement, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 28 patrol officers, 3 investigators, and 4 civilian employees	$29,540,000
Capital	Additional headquarters space with associated land; patrol vehicles	3,902,000
Total for Scenario One		**$33,442,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 26 patrol officers, 2 investigators, and 3 civilian employees	$26,732,000
Capital	Additional headquarters space with associated land; patrol vehicles	3,500,000
Total for Scenario Two		**$30,232,000**

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Table 12 – Public Safety, Detention Center, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 42 detention officers and 13 detention supervisors Other: increased food service and medical service costs	$25,168,000
Capital	Detention center expansion	4,000,000
Total for Scenario One		**$29,168,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 42 detention officers and 13 detention supervisors Other: increased food service and medical service costs	$22,947,000
Capital	Detention center expansion	3,647,000
Total for Scenario Two		**$26,594,000**

Note: The personnel additions indicated above are those required to double the county's detention center capacity. The population projection assumed under Scenario One would require the use of approximately 27 percent of new detention center capacity. The population projection assumed under Scenario Two would require the use of approximately 24 percent of new detention center capacity. The expenditure increases indicated above represent 27 percent and 24 percent of total estimated expenditures related to the detention center expansion.

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Table 13 – Public Safety, EMS and Dispatch, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 12 EMTs and paramedics; 8 dispatchers	$20,244,000
Capital	Additional EMS station space with associated land; dispatch center expansion; ambulances	2,065,000
Total for Scenario One		**$22,309,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 11 EMTs and paramedics; 8 dispatchers	$18,648,000
Capital	Additional EMS station space with associated land; dispatch center expansion; ambulances	1,869,000
Total for Scenario Two		**$20,518,000**

Public Works. Expenditures in the public works functional category include those related to road and bridge maintenance, solid waste disposal, and operation of the county's convenience centers. Expenditures related to the operation of the stormwater utility are not included. The impact of growth on the stormwater utility is discussed in the section on indirect and unquantified impacts. Increases in population will necessitate hiring additional equipment operators 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, the purchase of additional maintenance equipment, the expansion of a convenience center, and road system improvements. Increases in public works expenditures are summarized in Table 14.

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Table 14 – Public Works, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 1 supervisor and 5 equipment operators	$14,290,000
	Other: increased waste disposal costs	
Capital	Additional office and equipment storage space with associated land; road maintenance equipment; convenience center expansion	1,947,000
	Road system improvements	126,000,000
Total for Scenario One		**$142,237,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 4 equipment operators	$12,926,000
Capital	Additional office and equipment storage space with associated land; road maintenance equipment; convenience center expansion	1,714,000
	Road system improvements	126,000,000
Total for Scenario Two		**$140,640,000**

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

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maintenance vehicles, and library branch expansion. Increases in recreation and culture expenditures are summarized in Table 15.

Table 15 – Recreation and Culture, Beaufort County, Estimated Expenditures, Scenarios One and Two, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 19 recreation and leisure staff members and 24 library staff members	$53,603,000
Capital	Additional park land and improvements; park maintenance equipment; library branch expansion	54,559,000
Total for Scenario One		**$108,161,000**
Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 17 recreation and leisure staff members and 22 library staff members	$49,239,000
Capital	Additional park land and improvements; park maintenance equipment; library branch expansion	49,908,000
Total for Scenario Two		**$99,147,000**

REVENUE INCREASES

Beaufort County has two main sources of revenue: property 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 the appendix.

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Property Tax Revenue. Property taxes provide Beaufort County's largest source of revenue, approximately 70 percent 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.

Non-tax Revenue. Non-tax revenue provides the balance of Beaufort County general revenue. Non-tax revenue includes revenue from licenses, permits, fines, intergovernmental revenue, and miscellaneous income. Development impact fees are a major source of non-tax revenue. Projected impact fee revenue is presented separately from other non-tax revenue in the tables that follow. Stormwater utility fees provide another source of non-tax revenue; however, they are not included in this portion of the analysis. The impact of growth on the stormwater utility is discussed in the section on indirect and unquantified impacts.

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

Table 16. Total projected revenues are similar under each scenario. The greater average home values assumed under Scenario Two increase the revenue expected from property taxes levied on owner-occupied homes. The smaller population increase assumed under Scenario Two, however, results in a lower projection for increases in business-related taxes and non-tax revenues.

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Table 16 -- Estimated Revenues by Source, Beaufort County, Present Value, 2007 - 2031

Revenue Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$92,561,000	$101,127,000
Other real estate	33,497,000	33,368,000
Personal property	18,530,000	17,004,000
Business personal property	858,000	854,000
Utility and motor carrier property	5,142,000	4,719,000
Total Property Tax Revenue	**150,588,000**	**157,072,000**
Non-Tax Revenue	**16,359,000**	**15,020,000**
Impact Fees		
Roads	16,454,000	15,843,000
Parks	960,000	960,000
Libraries	5,403,000	5,403,000
Total Impact Fees	**22,817,000**	**22,206,000**
Total	**$189,764,000**	**$194,298,000**

COMPARISON OF EXPENDITURES AND REVENUES

Our analysis indicates that, under either scenario, growth-related revenue (excluding impact fee revenue) is sufficient to cover the increase in operating expenditures required to provide county government services to the new residents. Under either scenario, however, total revenue is insufficient to cover operating and capital expenditures combined, even after including development impact fee revenue. The total deficit exceeds $164 million under Scenario One. Under Scenario Two the deficit is nearly $140 million.

Table 17 presents the increased revenues and expenditures associated with population growth as present values. Under Scenario One, population growth is projected to increase expenditures by approximately $1.87 for every $1.00 it increases revenues. Without the impact fee revenue the ratio would be $2.12 of expenditures for each dollar of revenue. Under Scenario Two, expenditures increase by $1.71 for every $1.00 increase in revenues. Again, without the impact fee revenue the impact ratio would be higher, $1.94 per $1.00 of revenue.

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Table 17 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County, Present Value, 2007 – 2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$160,519,000	$146,737,000
Capital	193,429,000	187,466,000
Total Expenditures	**353,944,000**	**334,203,000**
Revenues		
Impact Fees	22,817,000	22,206,000
All Other Revenue	166,947,000	172,092,000
Total Revenues	**189,764,000**	**194,298,000**
Total Surplus or (Deficit)	**($164,180,000)**	**($139,905,000)**

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the total fiscal impact 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 five times as heavily as new households in the last year, because they receive services and contribute to revenues for twenty five years rather than for one. The estimated revenues per household, under both scenarios, are presented in Table 18. The estimated expenditures per household are presented in Table 19.

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Table 18 – Estimated Revenues per Household by Source, Beaufort County, Present Value, 2007-2031

Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$9,850	$10,761
Other real estate	3,565	3,551
Personal property	1,972	1,809
Business personal property	91	91
Utility and motor carrier property	547	502
Total Property Tax Revenue	**16,025**	**16,714**
Non-Tax Revenue	**1,741**	**1,598**
Impact Fees		
Roads	1,444	1,444
Parks	81	81
Libraries	456	456
Total Impact Fees	**1,981**	**1,981**
Total	**$19,747**	**$20,293**

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Table 19 -- Estimated Expenditures per Household by Category, Beaufort County, Present Value, 2007-2031

Category	Scenario One Expenditures	Scenario Two Expenditures
General Administration	$929	$867
Planning and Community Development	-	-
Tax Administration	337	277
Judicial Administration	717	673
Public Safety	9,037	8,231
Public Works	15,136	14,966
Recreation and Culture	11,510	10,551
Total Expenditures	**$37,666**	**$35,565**

Calculated by our method, under Scenario One, the present value of the costs of serving the average new household over the next twenty five years exceeds the present value of the revenue generated by it by almost $18,000. Under Scenario Two, expenditures exceed revenues by more than $15,000. Projected revenues, expenditures, and deficits per household are summarized in Table 20.

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Table 20 – Estimated Revenues, Expenditures, and Surplus or (Deficit) per Household, Beaufort County, Present Value, 2007-2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$17,081	$15,615
Capital	20,583	19,949
Total Expenditures	**37,666**	**35,565**
Revenues		
Impact Fees	1,981	1,981
All Other Revenue	17,766	18,312
Total Revenues	**19,747**	**20,293**
Total Surplus or (Deficit)	**($17,919)**	**($15,272)**

SUMMARY

The development of the Clarendon Farms and McLeod Farm properties is projected to increase Beaufort County's population by approximately 34,000 to 38,000 residents over a period of twenty five years. Beaufort County government will incur substantial direct costs in order to provide public services to the new residents. The increased operating expenditures and capital expenditures associated with the development are projected to exceed $300 million over the twenty five-year period under either development scenario.

The increase in residential and commercial investment and the increase in economic activity resulting from the larger population are projected to generate less than $200 million in additional county revenue over the period. This growth-related revenue will be sufficient to cover the growth-related increase in operating expenses. After accounting for growth-related capital requirements, however, we project a substantial deficit ranging from $140 million to $164 million, or approximately $15,000 to $18,000 per new household. This analysis addresses only the direct fiscal impacts of development that could be quantified within the time available for this analysis. Indirect and unquantified impacts are discussed in the next section of this report.

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INDIRECT AND UNQUANTIFIED IMPACTS – BEAUFORT COUNTY

The previous section presented our estimates of the direct fiscal impacts of the Clarendon Farms and McLeod Farm developments on Beaufort County government. Those estimates include only direct impacts and only those which could be quantified within the time available to complete the report. This section of the report discusses potential indirect and unquantified impacts of the development on Beaufort County.

STORMWATER MANAGEMENT UTILITY

Beaufort County operates a stormwater management utility in order to comply with its obligation (under the Clean Water Act) to control flooding and manage storm water pollution. When rainwater falls on rooftops, paved areas, and other impervious surfaces it may carry pollutants, such as fertilizers, oil and grease, and sediment into rivers, estuaries, and other natural waters. The stormwater management utility constructs and maintains the publicly-owned portions of the stormwater drainage system. Property owners pay an annual stormwater utility fee, based on their land use and quantity of impervious surface on their property. These fees are used to fund the construction and maintenance of public stormwater facilities.

The stormwater utility also specifies and enforces the use of best management practices for the construction and operation of private stormwater management facilities. Residential and commercial development increases the quantity of impervious surfaces within an area. This increase in impervious surface, if left unmitigated, will increase the quantity and rate at which pollution carrying runoff enters the local waterways. Best management practices require developers to mitigate the impacts of development on stormwater runoff by limiting the rate at which it enters natural waters and limiting the quantity of pollutants which it carries. Mitigation methods include the use of retention ponds and vegetated buffers.

Beaufort County public works officials indicated that they have little concern about the fiscal impact of the increase in development density on the stormwater management utility. They anticipate that stormwater utility fees collected within the development areas will be sufficient to fund needed public facilities. They are concerned, however, about the impact of the increased development density on the quality of the waters receiving runoff from the Clarendon Farms and McLeod Farm developments.

In a February 10, 2006 memo to Mayor Rauch of the City of Beaufort, Mr. Donald J. Smith, Chairman of the Beaufort County Stormwater Utility Advisory Board, outlined the Advisory Board's three primary concerns about the potential water quality impacts of the two developments. First, they are concerned that the Clarendon Farms and McLeod Farm developments will result in an increase in impervious surface that is as much as ten times the potential increase contemplated in the Stormwater Utility Master

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Plan. The projected increase in impervious surface influences the formulation of best management practices for managing stormwater runoff. Consequently, the currently specified best management practices may be insufficient to adequately limit the impact of runoff from the development on the nearby waterways. The Advisory Board recommends that the developers fund an analysis of the stormwater impacts of the developments to determine what modifications to the best management practices, if any, are required. Second, the Advisory Board is concerned that the development agreements do not appear to require the developers to comply with Beaufort County Special Area Management Plan. Third, they are concerned that the development agreements purport to relieve the developers of the obligation to comply with any future modifications to applicable best management practices.

While we are unable to assign a dollar amount to these potential impacts on water quality, it is nevertheless important that these issues be resolved. If the nearby water ways become polluted by excessive runoff, then cleanup – if it is even feasible – will be much more expensive than upfront mitigation of the impacts of development.

IMPACTS ON AVAILABILITY OF WORKFORCE HOUSING

Rapidly growing areas such as Beaufort County often experience rapid increases in property and home values. Consequently, housing that is affordable to workforce households[19] is often in short supply. Members of workforce households are often employed as construction workers, hotel workers, nurses and other hospital workers, and retail sales. Workforce positions also include government jobs, such as law enforcement officers, firefighters, or utility workers.

Workforce housing consists of homes that are affordable to workforce households. According to a report by GVA Marquette Advisors, workforce housing units in Beaufort County are those costing $125,000 or less. According to the report, in 2004 Beaufort County was already experiencing a workforce housing shortage of more than 3,700 homes. Demand for workforce housing was projected to increase during the 2004 – 2009 period by over 375 homes annually.

With average home values in the Clarendon Farms development projected at $350,000 to $388,000, it is unlikely that it will contain any significant number of workforce housing units. If average home values within the McLeod Farm development are in the neighborhood of $180,000, then it may well include some number of workforce housing units. If half of the McLeod Farm homes turned out to be priced in the workforce

[19] Workforce households are those with family income below 80 percent of median family income, adjusted for household size. See GVA Marquette Advisors, *Workforce Housing Needs Assessment: Beaufort County, South Carolina*. (Minneapolis, MN: GVA Marquette Advisors, 2004). <http://www.bcgov.net/Public_Info_Officer/Workforce%20Housing/WorkForceHousing.asp>.

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housing range, then McLeod Farm would provide approximately 1,500 workforce homes over a ten-year period, or 150 homes per year. However, it is also possible that the developer's plans may change. If the McLeod Farm homes are targeted at the higher-end of the housing market, as the Clarendon Farms homes are planned to be, then neither development would be expected to alleviate the demand for workforce housing. Furthermore, the increase in local employment that can be expected from the two developments is likely to increase demand for workforce housing.

IMPACTS OF INCREASES IN LOCAL EMPLOYMENT

As stated in the analysis of direct fiscal impacts, an increase in population is accompanied by an increase in economic activity, such as retail trade and construction. Statewide there are approximately 65 retail trade employees for each 1,000 residents. For construction employees the ratio is 38 per 1,000 residents. The ratio in the health and social services sector is approximately 40 per 1,000.[20] If the population increase associated with the Clarendon Farms and McLeod Farm developments generates employment at the same ratio, then Beaufort County could expect an employment increase of approximately 5,400 jobs in these three sectors alone. If Beaufort County had a large unemployed labor force, many of these jobs might be filled by local residents. In recent years, however, Beaufort County has consistently experienced a local unemployment rate that is among the lowest in the state.[21] It is likely that most of these new jobs will be filled by people currently living elsewhere.

Whether these new workers move to Beaufort County or commute from adjacent counties determines the type of impact the employment increase will have on the county. Most of the positions in these sectors are workforce positions, as described in the discussion of workforce housing. Thus these workers are likely to reside in Beaufort County only if affordable workforce housing is available. If workforce housing is available, then the influx of workers will likely result in a negative fiscal impact as homes in the workforce housing price range are unlikely to generate enough revenue to pay for the public services they require.

Based on past trends in workforce housing availability and commuting patterns it seems more likely that many of these employees will commute to their jobs from the surrounding area. In 2000, approximately 15 percent of all Beaufort County workers lived in another county and commuted to their place of employment. A large portion of these workers live in the South Carolina counties of Jasper, Colleton, and Hampton. Another large portion resides in Chatham County, Georgia. Among workers in lower

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[20] Calculated using data from the Bureau of Economic Analysis Regional Economic Information System <http://www.bea.gov/bea/regional/reis/>.

[21] Unemployment rate data can be obtained from the Bureau of Labor Statistics. <http://www.bls.gov/lau/home.htm>.

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paid positions, such as retail, the in-commuting portion is likely to exceed 15 percent. To the extent that these new workers commute to their jobs in Beaufort County, they will create additional traffic on the main roads leading in to the County from the surrounding areas. This secondary traffic impact may create a need for additional road system expansion not accounted for in the estimate of direct fiscal impacts reported elsewhere in this report.

IMPACT ON HURRICANE EVACUATION

In past decades, numerous tropical storms and hurricanes have passed near or through Beaufort County. Beaufort County's hazard mitigation plan[22] reports that passage of a tropical storm or hurricane within 50 miles of Beaufort County can be expected to recur every two years, on average. The recurrence interval for a storm or hurricane passing through Beaufort County is eight years.

Highway 21, which is heavily impacted by the Clarendon Farms and McLeod Farm developments, is the major artery used to evacuate much of northern Beaufort County in the event of a hurricane (See Figure 1). At full build-out the two developments will create a need to evacuate an additional 38,000 persons. As with the other impacts discussed in this section, there is no dollar amount attached to this impact. The role of Highway 21 in hurricane evacuation plans, however, does highlight the importance of adequately expanding the local road system to accommodate population growth.

[22] Greenhorne and O'Mara, Inc., *Beaufort County Hazard Mitigation Plan*. (Greenbelt, MD: Greenhorne and O'Mara, 2004).

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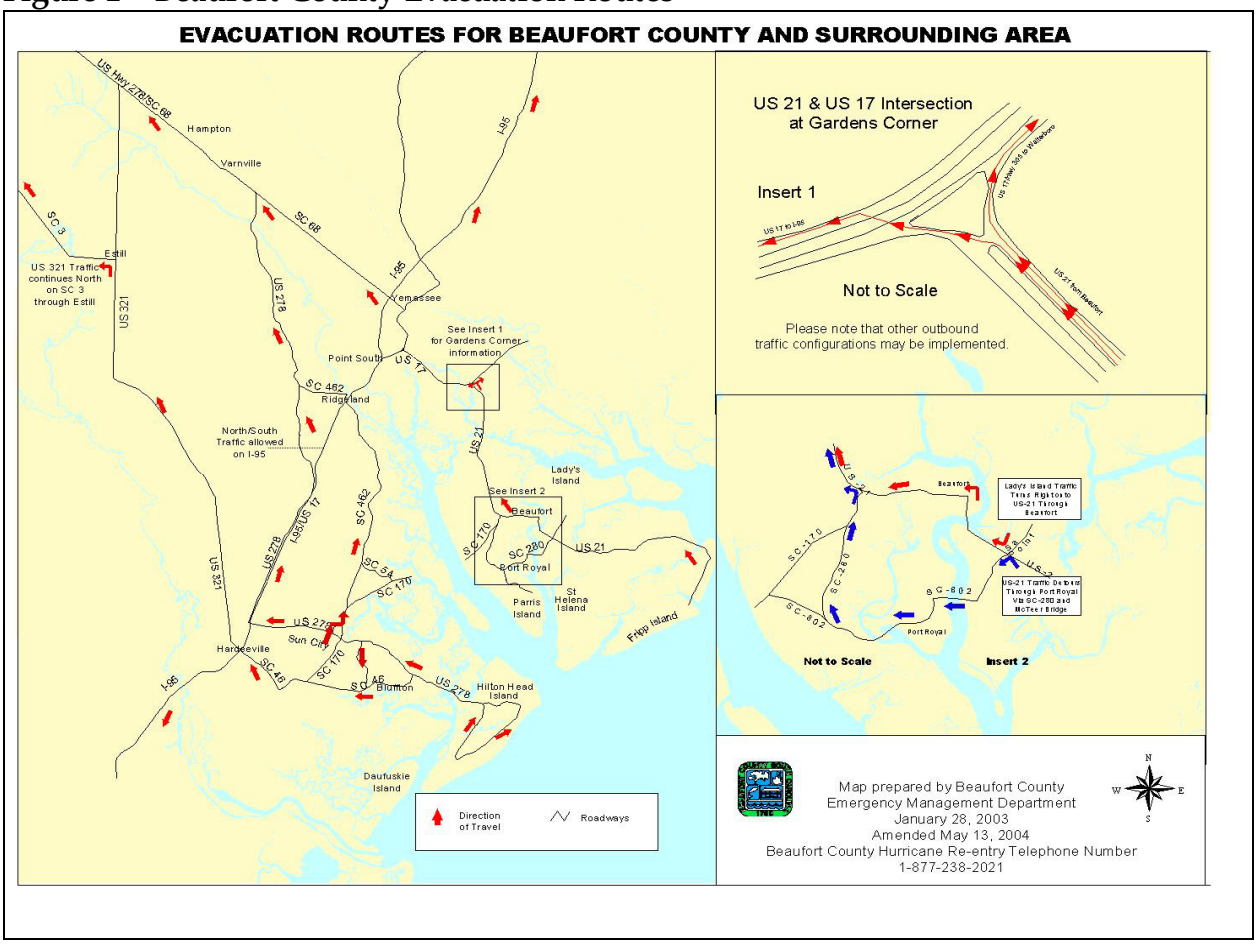
Figure 1 – Beaufort County Evacuation Routes



Source: Beaufort County <http://www.bcgov.net/Emerg_mgt/evacuation.asp>

SUMMARY

The issues discussed in this section highlight the fact that the impacts of development on Beaufort County extend beyond just the direct fiscal impacts discussed in the previous section. The development of the Clarendon Farms and McLeod Farm properties could potentially impact the quality of the area's natural waters, the availability of workforce housing, commuting patterns, and hurricane evacuation plans.

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FISCAL IMPACT ANALYSIS – BEAUFORT COUNTY SCHOOL DISTRICT

For the twenty five-year period beginning in fiscal year 2007 and ending in fiscal year 2031, we estimated the increases in Beaufort County School District expenditures and revenues associated with population growth projected under each of the two scenarios. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

School district expenditures are divided into two types: operating and capital. The two expenditure types are briefly described below. An explanation of the methods and assumptions used in estimating increases in expenditures of each type are provided in the appendix.

Operating Expenditures. These expenditures include salaries and fringe benefits for teachers, administrators and non-certified employees, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the instruction of students or to support services. For the purposes of this analysis we include only the portion of expenditures which are borne locally. We include only locally-funded expenditures and exclude the portion of expenditures that is covered by revenues from state and federal sources.[23] We also exclude expenditures required to service existing debt as well as expenditures and revenues related to the operation of the school district's food service enterprise.

Capital Expenditures. These expenditures include the costs of constructing new school facilities.

The estimated increase in expenditures of each type within each functional category is presented for both scenarios in Table 21. Predictably, the lower student yields assumed under Scenario Two result in a much lower expenditure projection.

[23] We should point out, however, that state aid to the Beaufort County School District has been reduced in recent years and there may be additional reductions in the future. Unfortunately, we have no way of predicting future school funding decisions to be made by the legislature. Consequently, we assume in our projections that state aid will remain at present levels.

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Table 21 -- Estimated Expenditure Increases by Type, Present Value, Scenarios One and Two, Beaufort County School District, 2007 - 2031

Expenditure Type	Scenario One	Scenario Two
Operating	$340,298,000	$210,913,000
Capital	88,998,000	51,096,000
Total	**$429,296,000**	**$262,009,000**

Table 22 presents the peak enrollment and new school facility requirements for the Clarendon Farms and McLeod Farm projects for each school type, under each scenario.

Table 22 – Estimated Peak Enrollment and School Facility Requirements, Scenarios One and Two, Beaufort County School District, 2007 - 2031

	Scenario One		Scenario Two	
	Peak Enrollment	New Facilities Required	Peak Enrollment	New Facilities Required
Elementary School	1,042	2.08	634	1.27
Middle School	752	1.00	439	0.59
High School	1,278	1.07	706	0.59
Total	**3,071**		**1,752**	

Notes: Peak enrollments may not sum to total because of differences in timing of peaks across school types. Fractional facilities indicate that the developments are projected to only partially fill some new school facilities leaving the remaining capacity available to serve development in other locations.

REVENUE INCREASES

The Beaufort County School District has three main sources of revenue: local property taxes, state aid, and federal aid. We have already accounted for state and federal aid by adjusting projected operating expenses, leaving only future property tax revenues to be estimated. An explanation of the methods and assumptions used in projecting property tax revenue is provided in the appendix. Property tax revenue projections for each of the two scenarios are presented in Table 23.

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Table 23 – Estimated Property Tax Revenues, Beaufort County School District, Present Value, 2007 - 2031

Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$198,052,000	$216,380,000
Other real estate	71,674,000	71,397,000
Personal property	39,648,000	36,384,000
Business personal property	1,836,000	1,827,000
Unfunded property tax relief	(40,944,000)	(40,944,000)
Total Property Tax Revenue	**$270,266,000**	**$285,044,000**

Total projected revenues are similar under each scenario. The greater average home values assumed under Scenario Two increase the revenue expected from property taxes levied on owner-occupied homes. The smaller population increase assumed under Scenario Two, however, results in a lower projection for revenues from property taxes levied on other property. The lower value of these revenues partially offsets the greater property tax revenues from owner-occupied homes.

The first $100,000 of appraised value of owner-occupied homes is exempt from property taxation for school operations. The state legislature has capped the reimbursement that schools districts receive to offset this tax relief. We assume that exemption and reimbursement policies will be unchanged over the study period. We project that the reimbursement cap will result in approximately $41 million in property tax relief that is unfunded by the state during the study period.

Comparison of Expenditures and Revenues

Our analysis indicates that, under Scenario One, growth-related revenues are insufficient to cover the increase in expenditures required to construct and operate the new schools required by the new residents. Under this scenario the total deficit exceeds $150 million. Under Scenario Two the lower student yields combine with the greater revenues to produce a projected surplus of approximately $23 million.

Table 24 presents the increased revenues and expenditures associated with population growth as present values. Under Scenario One, population growth is projected to increase expenditures by approximately $1.59 for every $1.00 it increases revenues. Under Scenario Two, expenditures increase by only $0.92 for every $1.00 increase in revenues.

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Table 24 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County School District, Present Value, 2007 – 2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$340,298,000	$210,913,000
Capital	88,998,000	51,096,000
Total Expenditures	**429,296,000**	**262,009,000**
Total Revenues	**270,266,000**	**285,044,000**
Total Surplus or (Deficit)	**($159,030,000)**	**$23,035,000**

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the total fiscal impact 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 five times as heavily as new households in the last year, because they receive services and contribute to municipal revenues for twenty five years rather than for one. The estimated revenue increases per household, under both scenarios, are presented in Table 25. The estimated expenditure increases per household are presented in Table 26.

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Table 25 – Estimated Property Tax Revenues per Household, Beaufort County School District, Present Value, 2007-2031

Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$21,076	$23,026
Other real estate	7,627	7,598
Personal property	4,219	3,872
Business personal property	195	194
Unfunded property tax relief	(4,357)	(4,357)
Total Property Tax	**$28,760**	**$30,333**

Table 26 – Estimated Education Expenditures per Household, Beaufort County School District, Present Value, 2007-2031

Expenditure Type	Scenario One	Scenario Two
Operating	$36,213	$22,444
Capital	9,471	5,437
Total	**$45,684**	**$27,881**

Calculated by our method, under Scenario One, the present value of the costs of serving the average new household over the next twenty five years exceeds the present value of the revenue generated by it by almost $17,000. Under Scenario Two, revenues exceed expenditures by more than $2,400. Projected revenues, expenditures, and the deficit or surplus per household are summarized in Table 27.

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Table 27 – Estimated Revenue, Expenditure, and Surplus or (Deficit) per Household, Beaufort County School District, Present Value, 2007-2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$36,213	$22,444
Capital	9,471	5,437
Total Expenditures	**45,684**	**27,881**
Total Revenues	**28,760**	**30,333**
Total Surplus or (Deficit)	**($16,924)**	**$2,452**

SUMMARY

As expected, the fiscal impact of residential development on the Beaufort County School District is extremely sensitive to the number of students living in the new developments. A development in which many of the households are occupied by families with school-age children will almost certainly have a negative fiscal impact on the school district. We project that growth-related revenues will be insufficient to cover even the increase in operating expenditures, much less the required capital expenditures to construct new schools. A development that targets primarily retirees, however, may possibly have a positive impact on school system finances because of the much smaller increase in school enrollment it produces.

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FISCAL IMPACT ANALYSIS – BURTON FIRE DISTRICT

The Burton Fire District is a special purpose district that provides fire suppression and prevention services within the unincorporated areas of Port Royal Island in Beaufort County. Burton Fire District's service territory has a population of approximately 27,000 persons and encompasses 83 square miles.[24]

The developer agreements for the Clarendon Farms and McLeod Farm properties state that Burton Fire District will continue to be responsible for fire protection after the area is annexed by the City of Beaufort.[25] It is not certain, however, that Burton Fire District is under any legal obligation to continue providing fire protection after annexation.[26] This fiscal analysis assumes that the Burton Fire District does, in fact, accept the obligation for providing fire protection services within the new developments.

For the twenty five-year period beginning in fiscal year 2007 and ending in fiscal year 2031, we estimated the increases in Burton Fire District expenditures and revenues associated with population growth projected under each of the two scenarios. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

Fire district expenditures are divided into two types: operating and capital. The two expenditure types are briefly described below. An explanation of the methods and assumptions used in estimating increases in expenditures of each type are provided in the appendix.

Operating Expenditures. These expenditures include salaries and fringe benefits for fire fighters and civilian employees, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the operations of the district.

Capital Expenditures. These expenditures include the costs of constructing new fire stations and purchasing new fire fighting equipment.

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[24] *About the BFD*. Undated. <http://www.burtonfd.org/about-us.htm>.

[25] The development agreements and other documents related to this issue are available for download at <http://www.bcgov.net/Public_Info_Officer/Clarendon_Mcleod_Anex/AnnexationList.php>.

[26] See memo dated February 7, 2006 from H. Fred Kuhn, Jr. to William B. Harvey, III available for download at: <http://www.bcgov.net/Public_Info_Officer/Clarendon_Mcleod_Anex/Annexation and Fire District doc one.pdf>.

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The estimated increase in expenditures of each type within each functional category is presented for both scenarios in Table 28. The estimated expenditures required to provide fire services to the new developments are the same under either scenario.

Table 28 – Estimated Expenditures by Type, Present Value, Scenarios One and Two, Burton Fire District, 2007 - 2031

Expenditure Type	Scenario One	Scenario Two
Operating	$67,718,000	$67,718,000
Capital	4,020,000	4,020,000
Total	**$71,738,000**	**$71,738,000**

Table 29 summarizes the personnel and capital additions projected for the two scenarios.

Table 29 – Estimated Expenditures, Scenarios One and Two, Burton Fire District, 2007-2031

Scenario One		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 40 full-time firefighters	$67,718,000
Capital	Two additional fire stations, 4 pumpers, and 2 aerial trucks	4,020,000
Total for Scenario One		**$71,738,000**

Scenario Two		
Expenditure Type	**Required Additions**	**Present Value**
Operating	Personnel: 40 full-time firefighters	$67,718,000
Capital	Two additional fire stations, 4 pumpers, and 2 aerial trucks	4,020,000
Total for Scenario Two		**$71,738,000**

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REVENUE INCREASES

The Burton Fire District has two main sources of revenue: property taxes and development impact fees. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in the appendix.

Property Tax Revenue. Property taxes provide Burton Fire District's largest source of 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.

Impact Fee Revenue. Development impact fees are collected from developers. The revenue is used to offset the cost of capital improvements needed to provide fire protection services to the new development. The estimated increase in revenue from each source under each scenario is presented in Table 30.

Table 30 -- Estimated Revenues by Source, Burton Fire District, Present Value, 2007 - 2031

Revenue Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$118,831,000	$129,828,000
Other real estate	43,004,000	42,838,000
Personal property	23,789,000	21,830,000
Business personal property	1,101,000	1,096,000
Total Property Tax Revenue	**186,725,000**	**195,592,000**
Total Impact Fees	**6,699,000**	**6,613,000**
Total	**$193,424,000**	**$202,205,000**

Total projected revenues are similar under each scenario. The greater average home values assumed under Scenario Two increase the revenue expected from property taxes levied on owner-occupied homes. The smaller population increase assumed under Scenario Two, however, results in a lower projection for revenues from property taxes

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levied on other property. The lower value of these revenues partially offsets the greater property tax revenues from owner-occupied homes.

COMPARISON OF EXPENDITURES AND REVENUES

Our analysis indicates that under either scenario growth-related revenues are sufficient to cover the increase in expenditures required to construct and operate the fire stations required to protect the new developments. The surplus under Scenario One is projected to exceed $121 million; under Scenario Two the projected surplus is more than $130 million.

Table 31 presents the increased revenues and expenditures associated with population growth as present values. Under Scenario One, population growth is projected to increase expenditures by approximately $2.70 for every $1.00 it increases revenues. Under Scenario Two, expenditures increase by $2.82 for every $1.00 increase in revenues.

Table 31 – Estimated Expenditure Increases, Revenue Increases, and Surplus or (Deficit), Burton Fire District, Present Value, 2007 – 2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$67,718,000	$67,718,000
Capital	4,020,000	4,020,000
Total Expenditures	**71,738,000**	**71,738,000**
Revenues		
Impact Fee	6,699,000	6,613,000
Property Tax	186,725,000	195,592,000
Total Revenues	**193,424,000**	**202,205,000**
Total Surplus or (Deficit)	**$121,686,000**	**$130,467,000**

The projected fiscal impact of the developments on Burton Fire District presents a stark contrast when compared to the projected impacts on Beaufort County government and the Beaufort School District. The positive fiscal impact on Burton Fire District appears to

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be a result of the fact that the proposed developments will be populated much more densely than Burton Fire District's existing service area.

Burton Fire District's existing service area has a population approximately equal to that of Anderson, South Carolina. However, the Burton Fire District covers 83 square miles whereas the City of Anderson covers less than 14 square miles. Consequently, a service territory like that of the Burton Fire District requires a greater number of stations, equipment, and fire fighting personnel than is required to serve a smaller, more densely populated service territory. The Anderson Fire Department is able to cover its much smaller territory with one-third as many stations and approximately half as much equipment as Burton Fire District. Relevant characteristics of the Burton Fire District and Anderson Fire Department are compared in Table 32.

Burton Fire District's present revenue structure is designed to generate sufficient revenue to provide fire protection to a relatively sparsely populated, far-flung service territory. Because the projected developments are much more densely populated than Burton Fire District's existing service territory, the homes and businesses within the developments are expected to generate more revenue than will be required to provide them with fire protection.

Table 32 – Comparison of Burton Fire District and Anderson, S.C. Fire Department

	Population	Service Area (sq. miles)	Full-Time Firefighters	Full-Time FF/1000 population	Stations	Companies	
						Engine	Aerial
Burton[27]	27,000	83	47	1.7	5	6	2
Anderson[28]	25,563	14	53	2.1	2	3	2

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the total fiscal impact 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.

[27] Source: *About the BFD*. Undated. <http://www.burtonfd.org/about-us.htm>.

[28] 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>

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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 five times as heavily as new households in the last year, because they receive services and contribute to municipal revenues for twenty five years rather than for one. The estimated revenue increases per household, under both scenarios, are presented in Table 33. The estimated expenditures per household are presented in Table 34.

Table 33 – Estimated Revenues per Household by Source, Burton Fire District, Present Value, 2007-2031

Source	Scenario One	Scenario Two
Property Tax		
Owner-occupied real estate	$12,645	$13,816
Other real estate	4,576	4,559
Personal property	2,531	2,323
Business personal property	117	117
Total Property Tax Revenue	**19,869**	**20,815**
Total Impact Fee Revenue	**573**	**565**
Total	**$20,442**	**$21,379**

Table 34 – Estimated Expenditures per Household by Category, Burton Fire District, Present Value, 2007-2031

Expenditure Type	Scenario One	Scenario Two
Operating	$7,206	$7,206
Capital	428	428
Total	**$7,634**	**$7,634**

Calculated by our method, under either scenario, the present value of the revenue generated by the average new household over the next twenty five years exceeds the present value of the expenditures required to provide it with fire protection by approximately $13,000. Projected revenues, expenditures, and the deficit or surplus per household are summarized for each scenario in Table 35.

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Table 35 – Estimated Revenues, Expenditures, and Surplus or (Deficit) per Household, Burton Fire District, Present Value, 2007-2031

Item	Scenario One	Scenario Two
Expenditures		
Operating	$7,206	$7,206
Capital	428	428
Total Expenditures	**7,634**	**7,634**
Total Revenues	**20,442**	**21,379**
Total Surplus or (Deficit)	**$12,809**	**$13,745**

SUMMARY

The Burton Fire District is the only local government service provider analyzed in this report that is expected to experience a positive fiscal impact under both of the two development scenarios. The positive projected fiscal impact produced by the development of the Clarendon Farms and McLeod Farm properties is a result of their much greater population density compared to the existing Burton Fire District service territory.

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FISCAL IMPACT ANALYSIS – ALTERNATIVE DEVELOPMENT PATTERNS

The fiscal impact analysis presented in this report is based on certain assumptions about the pace and ultimate extent of development. These assumptions are based on the best information that is currently available. Development schedules are subject to change, however, based on changes in market conditions over time. Furthermore, the fiscal impact estimates presented in earlier sections of this report don't take into account the probability of development of the properties even if not annexed into the City of Beaufort. This section of the report briefly analyzes the impact of these alternative development patterns.

EFFECTS OF CHANGES IN THE PACE OF DEVELOPMENT

We investigated the effect of changes in the pace of development by conducting two analyses that are alternatives to the analysis of Scenario One. In the first alternate scenario, designated Alternate Scenario One, we assumed that development of the McLeod Farm property would occur over a twenty five-year period rather than a ten-year period. In the second, designated Alternate Scenario Two, we assumed that most of the development of the Clarendon Farms property would occur during the first ten years of the study period. The first alternate scenario gives us an indication of the effect of a slower development pace than that assumed in the main estimate. The second alternate scenario provides information about the effects of an accelerated development pace. Table 36 compares the fiscal impact on Beaufort County government of Alternate Scenarios One and Two to Scenario One.

The figures presented in Table 36 indicate that a slower pace of development results in a bigger total deficit, whereas a faster pace of development results in a smaller deficit. The pace of the development has little impact on capital expenditures or impact fee revenues because the total quantity of development is unchanged. The pace has a big impact, however, on operating expenditures and revenues from property taxes and other non-impact fee revenue sources. Because we expect revenues to exceed operating expenditures, a slower development pace produces a smaller surplus available to offset capital expenditures. A faster development pace has the opposite effect.

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Table 36 – Estimated Revenues, Expenditures, and Surplus or (Deficit), Beaufort County, Scenario One and Two Alternates, Present Value, 2007-2031

Item	Scenario One	Alternate Scenario One (Slower Pace)	Alternate Scenario Two (Faster Pace)
Expenditures			
Operating	$160,519,000	$152,569,000	$189,525,000
Capital	193,429,000	193,138,000	194,906,000
Total Expenditures	**353,944,000**	**345,707,000**	**384,431,000**
Revenues			
Impact Fees	22,817,000	21,920,000	25,749,000
All Other Revenue	166,947,000	156,594,000	217,452,000
Total Revenues	**189,764,000**	**178,514,000**	**243,201,000**
Total Surplus or (Deficit)	**($164,180,000)**	**($167,193,000)**	**($141,230,000)**

A comparison of the impacts of the two alternate scenarios for the Beaufort County School District is presented in Table 37. In the case of the school district a slower pace of development reduces the projected deficit, whereas a faster pace of development increases it. This effect is a result of the impact on average enrollment level. As illustrated in Table 38, a slower development pace increases the peak enrollment but decreases the average enrollment because it takes a greater number of years to reach the peak. Consequently, capital expenditures increase slightly, but this increase is offset by a larger decrease in operating expenditures. The decrease in property tax revenues is relatively small.

In the event of faster development, however, peak and average both enrollment increase. This results in an increase in both operating and capital expenditures. There is also a substantial increase in property tax revenues, but not enough to offset the increase in expenditures.

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Table 37 – Estimated Revenues, Expenditures, and Surplus or (Deficit), Beaufort County School District, Scenario One and Two Alternates, Present Value, 2007-2031

Item	Scenario One	Alternate Scenario One (Slower Pace)	Alternate Scenario Two (Faster Pace)
Expenditures			
Operating	$340,298,000	$308,419,000	$413,196,000
Capital	88,998,000	96,022,000	117,094,000
Total Expenditures	**429,296,000**	**404,441,000**	**530,290,000**
Property Tax Revenues	**270,266,000**	**256,942,000**	**349,685,000**
Total Surplus or (Deficit)	**($159,030,000)**	**($147,499,000)**	**($180,605,000)**

Table 38 – Estimated Peak and Average Enrollment, Scenario One and Two Alternates, Beaufort County School District, 2007 - 2031

	Scenario One Enrollment	Alternate Scenario One Enrollment	Alternate Scenario Two Enrollment
Elementary School	1,042	1,138	1,480
Middle School	752	817	1,027
High School	1,278	1,366	1,585
Peak	**3,071**	**3,321**	**4,092**
Average	**2,269**	**2,056**	**2,755**

A comparison of the impacts of the two alternate scenarios for the Burton Fire District is presented in Table 39. In the case of the fire district, a slower pace of development decreases the surplus generated by the development. The decrease is a result of a decrease in the projected property tax and impact fee revenues, while capital and operating expenditures are unchanged.

A faster pace of development increases the surplus generated by the development. In this case, operating expenditures increase because the new fire stations are built earlier, putting new fire fighters on the payroll earlier. Revenues – especially property tax

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revenues, increase by more than enough to offset the increase in operating expenditures.

Table 39 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Burton Fire District, Scenario One and Two Alternates, Present Value, 2007 – 2031

Item	Scenario One	Alternate Scenario One	Alternate Scenario Two
Expenditures			
Operating	$67,718,000	$67,718,000	$70,321,000
Capital	4,020,000	4,020,000	4,020,000
Total Expenditures	**71,738,000**	**71,738,000**	**74,341,000**
Revenues			
Impact Fee	6,699,000	6,432,000	7,573,000
Property Tax	186,725,000	176,011,000	243,371,000
Total Revenues	**193,424,000**	**182,443,000**	**250,944,000**
Total Surplus or (Deficit)	**$121,686,000**	**110,705,000**	**176,603,000**

In summary, the pace of development affects our fiscal impact estimates. The magnitude of the changes, however, are not sufficient to change any of the main implications of our findings: Beaufort County can expect a deficit under either set of demographic characteristics; the Beaufort County School District can expect a deficit unless the developments are filled with retirees; and the Burton Fire District can expect a surplus under either circumstances.

EFFECT OF LEAVING THE DEVELOPMENTS UNINCORPORATED

If the development properties were not annexed into the City of Beaufort, then they might still be developed. However, they would not develop at the same density. We analyzed two more alternate scenarios, designated Scenario One-A and Scenario Two-A. Scenario One-A and Scenario Two-A uses the same demographic assumptions as Scenario One and Scenario Two but assume a development density only one-ninth of that of the base scenarios. The alternate scenarios also assume that the properties remain in the unincorporated portion of the county, which affects some revenue sources such as building fees.

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Table 40 compares the fiscal impacts of Scenarios One and One-A.

Table 40 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County, Scenarios One and One-A, Present Value, 2007 – 2031

Item	Scenario One	Scenario One-A
Expenditures		
Operating	$160,519,000	$17,730,000
Capital	193,429,000	5,234,000
Total Expenditures	**353,944,000**	**22,964,000**
Revenues		
Impact Fees	22,817,000	2,525,000
All Other Revenue	166,947,000	21,204,000
Total Revenues	**189,764,000**	**23,729,000**
Total Surplus or (Deficit)	**($164,180,000)**	**$765,000**

As expected, the lower development density results in lower projected values of revenues and expenditures. Consequently, Beaufort County is projected to experience a small surplus.

Table 41 compares the fiscal impacts of Scenarios Two and Two-A. The results are similar to those presented in Table 40: a large decrease in projected revenues and expenditures and a fiscal surplus overall.

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Table 41 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County, Scenarios Two and Two-A, Present Value, 2007 – 2031

Item	Scenario Two	Scenario Two-A
Expenditures		
Operating	$146,737,000	$14,726,000
Capital	187,466,000	4,744,000
Total Expenditures	**334,203,000**	**19,470,000**
Revenues		
Impact Fees	22,206,000	2,454,000
All Other Revenue	172,092,000	21,889,000
Total Revenues	**194,298,000**	**24,343,000**
Total Surplus or (Deficit)	**($139,905,000)**	**$4,873,000**

Table 42 compares the fiscal impacts of Scenarios One and One-A for the Beaufort County School District.

Table 42 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County School District, Scenarios One and One-A, Present Value, 2007 – 2031

Item	Scenario One	Scenario One-A
Expenditures		
Operating	$340,298,000	$37,560,000
Capital	88,998,000	9,864,000
Total Expenditures	**429,296,000**	**47,424,000**
Total Revenues	**270,266,000**	**29,718,000**
Total Surplus or (Deficit)	**($159,030,000)**	**($17,706,000)**

Not surprisingly, expenditures, revenues, and the deficit all decrease by approximately a factor of nine. The comparison of Scenarios Two and Two-A is presented in Table 47.

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Again, expenditures, revenues, and the surplus are all reduced approximately nine-fold.

Table 43 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Beaufort County School District, Scenarios Two and Two-A, Present Value, 2007 – 2031

Item	Scenario Two	Scenario Two
Expenditures		
Operating	$210,913,000	$23,214,000
Capital	51,096,000	5,626,000
Total Expenditures	**262,009,000**	**28,840,000**
Total Revenues	**285,044,000**	**31,353,000**
Total Surplus or (Deficit)	**$23,035,000**	**$2,513,000**

Finally, we compared the results of the base and alternate scenarios for the Burton Fire District. In each alternate scenario, we assumed that no capital improvements or personnel additions would be required. The comparisons are presented in Table 44 and Table 45. Under either alternate scenario, the fire district is projected to experience a twenty five-year surplus of approximately $21 million to $22 million.

In summary, the Burton Fire District is the only local government expected to experience a more positive fiscal outcome under the high-density development scenarios than under the existing development densities.

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Table 44 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Burton Fire District, Scenarios One and One-A, Present Value, 2007 – 2031

Item	Scenario One	Scenario One-A
Expenditures		
Operating	$67,718,000	-
Capital	4,020,000	-
Total Expenditures	**71,738,000**	**-**
Revenues		
Impact Fee	6,699,000	741,000
Property Tax	186,725,000	20,543,000
Total Revenues	**193,424,000**	**21,284,000**
Total Surplus or (Deficit)	**$121,686,000**	**$21,284,000**

Table 45 – Estimated Expenditures, Revenues, and Surplus or (Deficit), Burton Fire District, Scenarios Two and Two-A, Present Value, 2007 – 2031

Item	Scenario Two	Scenario Two-A
Expenditures		
Operating	$67,718,000	-
Capital	4,020,000	-
Total Expenditures	**71,738,000**	**-**
Revenues		
Impact Fee	6,613,000	731,000
Property Tax	195,592,000	21,524,000
Total Revenues	**202,205,000**	**22,255,000**
Total Surplus or (Deficit)	**$130,467,000**	**$22,255,000**

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IMPACTS ON OTHER GOVERNMENT AGENCIES AND PUBLIC SERVICE PROVIDERS

The Clarendon Farms and McLeod Farm development agreements contemplate a large increase in development density over what would be permitted if the property remained in the unincorporated area of Beaufort County and subject to County development regulations. This potential change in population density within the area has the potential to impact not only the County, but other government agencies and public service providers, as well. This section of the report briefly discusses the potential impacts of the proposed development on two such agencies or providers: Marine Corps Air Station – Beaufort and the Beaufort Memorial Hospital.

IMPACT ON MARINE CORPS AIR STATION – BEAUFORT

The Department of the Navy is concerned about potential residential encroachment in the current and future Noise and Accident Potential Zones because the Marine Corps Air Station – Beaufort abuts the proposed developments. Currently, 836 acres on the eastern portion of the Clarendon Farms property is in the Noise Zone and a portion of the property is in the Accident Potential Zone (APZ). Eighty-three acres of the McLeod Farm property are in the Noise Zone (See Figure 2).

In 1999 the Air Station was annexed into the City of Beaufort. In 2004 the Lowcountry Council of Government, Beaufort County, the City of Beaufort, the City of Port Royal and the Department of the Navy worked together to develop a joint land use study for the area around the Air Station. Recommendations from the study, that included height and development restrictions in the Noise and Accident Potential Zones, were not fully implemented by the County or the City of Beaufort.

The Air Station is in the process of moving from F-18 Fighter Jets to Joint Strike Fighters. These new fighters are noisier airplanes than the current F-18 Fighters. Training programs will include late night flights and low altitude flying that will expand the current contours to cover half of the proposed annexed developments. The MCAS is concerned because the current Noise and Accident Potential Zones' footprints could be locked into the 50 year (Clarendon) and 20 year (McCloud) development agreements, not allowing for an expansion of Noise/APZ contour maps based upon changes in aircrafts and operations.

Compatible land uses and the threat of encroachment are significant issues between the Air Station and new area development. Beaufort County and the City of Beaufort zoning regulations do not prevent housing next to noise contour lines. In a February 6, 2006 letter to William Rauch, Mayor of the City of Beaufort, Col. R.W. Lanham, MCAS Commanding Officer, expresses many of these concerns and also asks that the city make the AICUZ Footprint "a part of the development agreements…". It will be very difficult to adjust zoning and development to boundaries for unknown Air Station

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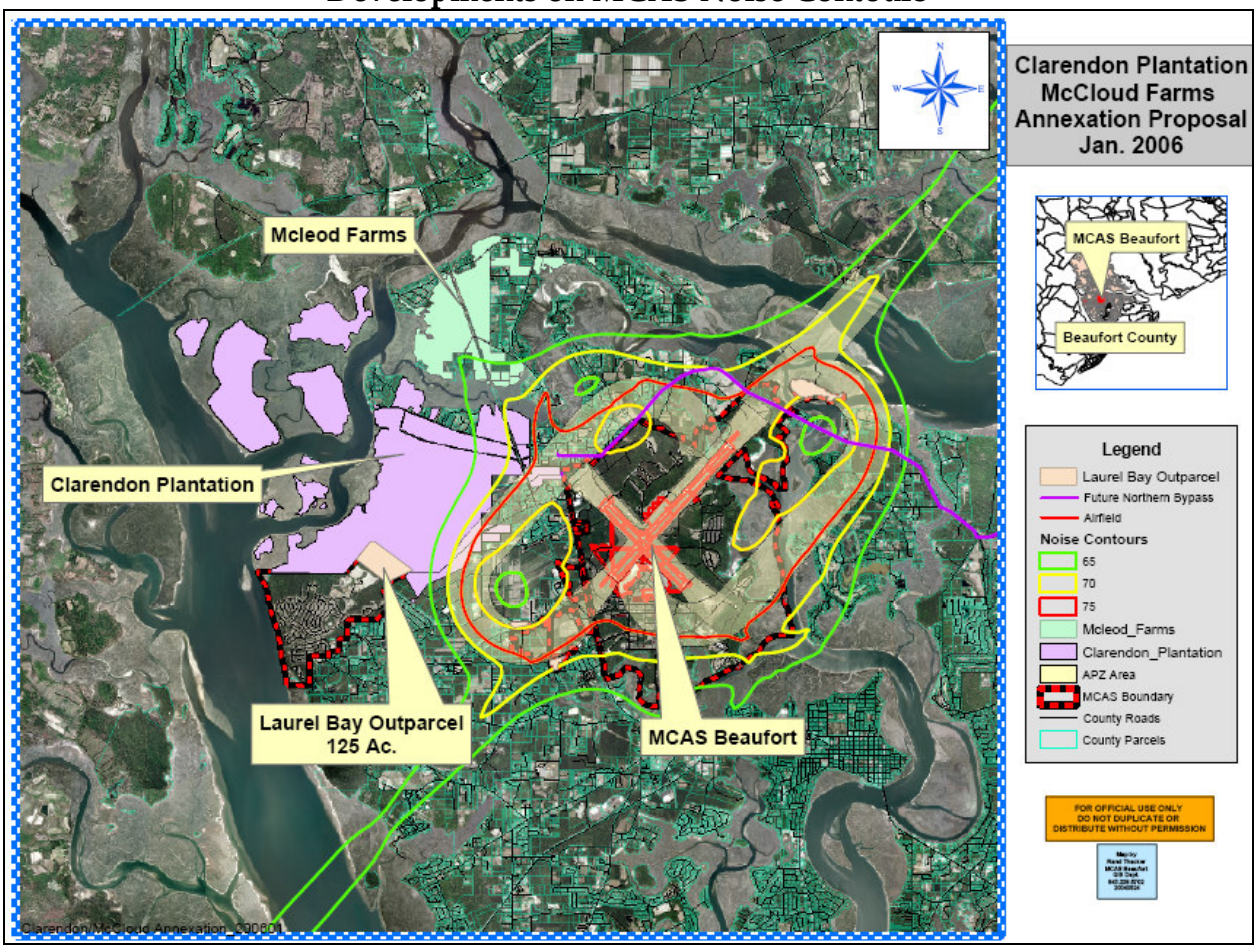
changes, however, the County and City should consider the adoption of planned future noise and APZ contours into existing documentation. This will address foreseeable Air Station operations.

The February 6, 2006 letter also suggests that detailed site plans be developed to ensure that schools and other high density structures are kept away from high noise and APZ areas. To this end, the USMC suggests an opportunity to swap USMC property for new annexed property in the noise and APZ contour areas, and a partnership with the county to buy development rights around the Air Station for conservation use.

Figure 2 -- Encroachment of Clarendon and McLeod Developments on MCAS Noise Contours



Source: MCAS - Beaufort

IMPACT ON BEAUFORT MEMORIAL HOSPITAL

Beaufort Memorial Hospital (BMH) is a not-for-profit hospital that has a medical staff of more than 100 board-certified specialists and offers a full range of services. In addition, BMH is the only hospital in South Carolina affiliated with the Duke University Health

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System. In particular, this partnership between BMH and Duke developed regional cancer and heart centers in Beaufort.

Beaufort Memorial Hospital has taken the steps to meet future demands of a fast-growing community. BMH CEO Mr. David Brown notes that the hospital bases its care capacity on 400 days of care per 1,000 residents. To meet the anticipated space needs the hospital is expanding with a new addition. Because of its location near the coast and in a warm climate, the hospital has had great success at attracting qualified nursing staff from "rust belt" states and works with the local technical college in placing recent graduates. Currently, Beaufort County is also an attractive place for physicians to practice. However, because many patients are on Medicare (which pays less than insurance companies) the future attractiveness of the area to physicians is unknown. Another positive section of the health care sector is ancillary services. In most cases the market for these types of services has been strong based upon the community's health care needs and ability to pay.

Mr. Brown stated that the demographic characteristics of in-migrating retirees are different from that of other retirement destinations. The average Beaufort County retiree is in his late fifties or early sixties and in good health. Most will not experience significant health related problems for another fifteen to twenty years. Newly arriving retirees also have their own transportation to go to appointments, pick up prescriptions, and attend to other health care related trips. For those Beaufort County residents without their own vehicle, Mr. Brown notes that the local family infrastructure is used to transport elderly patients.

Mr. Brown noted two potential problems. The first is the need for additional nursing homes as the elderly population expands. However, the regulation and certification of nursing homes is the responsibility of the state of South Carolina and cannot be addressed solely by local governments. The second potentially negative situation is the lack of affordable housing for non-physician staff near the hospital. The price of housing in Beaufort County has risen significantly in the last 5 to 10 years. Affordable housing issues are discussed in the section on indirect and unquantified impacts.

SUMMARY

From the discussion above, it appears that the Beaufort Memorial Hospital will likely be able to cope with the larger population that will result from increasing the allowable development density of the Clarendon Farms and McLeod Farm properties. BMH has gained experience in coping with rapid development over the past several years and has experienced no difficulty in recruiting health care professionals to staff the hospital as it has expanded. The primary potential difficulty that may be faced by BMH is a lack of affordable housing for its non-physician staff.

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Marine Corps Air Station – Beaufort, however, has the potential to suffer significant negative impacts due to the planned increase in development density. Allowing the encroachment of residential development or other incompatible uses into the present or future noise contours creates the opportunity for conflict between area residents and MCAS – Beaufort. Colonel R.W. Lanham notes in his letter of February 6, 2006 that similar situations have led to the degradation of the mission and even closure of other military air installations.

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CONCLUSIONS

Under either of the development scenarios we project that the Clarendon Farms and McLeod Farm projects will have a negative impact on Beaufort County government finances. The projected deficit is much larger under the scenario that assumes new residents will primarily be families with school children than under the scenario assuming that most new residents will be childless retirees. The deficits are attributed largely to the need for capital improvements to serve the new residents. The developments are projected to generate sufficient revenue to cover the increase in County operating expenditures required to provide them with public services.

If Beaufort County, like most South Carolina county governments, imposed no impact fees, then the projected deficits would be even larger. Still, the projected impact fee revenues fall well short of the cost of the road, park, and library capital improvements they are intended to pay for. The shortfall is largely because the impact fees are designed to fund a set of capital projects that were selected assuming that development would occur at a much lower density than is contemplated by the Clarendon Farms and McLeod Farm projects.

Overall, our projections of negative impacts on Beaufort County government finances are in accord with prior research in other communities. We have found that counties in which prior development has created high levels of per capita assessed valuation tend to have low property tax millage rates. Consequently, each new home generates only a portion of the tax revenue that would be expected in communities where tax rates are higher. [29]

We also identified a number of potential indirect and unquantified impacts. The high-density development contemplated in the Clarendon Farms and McLeod Farm developments could negatively impact the quality of the area's waterways, the availability of workforce housing, traffic congestion caused by in-commuting workers, and hurricane evacuations along Highway 21. Encroachment of development into the Marine Corps Air Station's noise contours may negatively impact the Air Station's mission, as well. Marine Corps officials indicate that such a situation could possibly make future base closure more likely.

The projected impacts on Beaufort County School District finances are mixed. Under the scenario in which new residents have few school children we project a modest surplus. Under the scenario that includes many families with school children, however, we project that the school district will be faced with a large deficit. Approximately 25

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[29] Taylor, Charles D. and William E. Molnar, *Population Growth and Local Government Finance: What Have We Learned?* [STI Policy Brief] (Clemson, SC: Strom Thurmond Institute, Clemson University, February 2006), <http://www.strom.clemson.edu/publications/taylor/popgrowth_0206.pdf>.

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percent of the projected deficit can be attributed to property tax relief that is mandated, but unfunded, by state law. A large portion of the remainder can be attributed to the expense of new school buildings. Some portion is probably also a result of quirks in the state system of education funding. Consideration of the state funding system, however, is beyond the scope of this report.

The Burton Fire District is the only local government service provider for which we project a fiscal surplus under both scenarios. In the case of fire protection, more densely populated areas can be served at lower cost than Burton Fire District's existing, sparsely populated service territory.

More generally, the results of this analysis highlight the need for communication and cooperation by all local governments within a community, which all share overlapping constituencies. People who reside in municipalities are residents – and taxpayers – of the county and school district as well. Decisions made by one local government are likely – perhaps certain – to impact the others.

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APPENDIX : ASSUMPTIONS AND METHODOLOGY

This appendix describes the assumptions and methodology used to estimate the increases in Beaufort County government, Beaufort County School District, and Burton Fire District expenditures and revenues resulting from the population growth associated with the development of the Clarendon Farms and McLeod Farm properties.

The procedures used to estimate growth-related expenditures and revenues for the Beaufort County School District and Burton Fire District are similar, but not identical, to those used for Beaufort County government. In the discussion that follows, where methods or assumptions differ we describe those used for county government, followed by those used for the school district and the fire district.

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 characteristics of development area. Our primary assumptions concern household demographic characteristics, population growth rate, the inflation rate, and the discount rate to be used in computing present values of future expenditures.

Household Demographic Characteristics. We analyzed the demographic characteristics of all Beaufort County Census Tracts and determined that the tracts could be divided into two primary groups. One group has populations with relatively high percentages of senior citizens and relatively few school age children. A second

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group has populations with relatively high percentages of school age children and relatively few senior citizens. There is a third group of two tracts that contain the USMC facilities, MCAS-Beaufort and Parris Island. Given the nature of the development under examination, these tracts don't figure into the analysis.

Table 46 presents key demographic data for the three groups. Group A is the first group with many senior citizens. Group B is the second group with many school children. Group C, containing the USMC tracts, is included for completeness. All data are from the 2000 Census.

Group A has an average household size of 2.16 persons and 0.16 students per household. Group B, not surprisingly, contains larger households and more students per household: 2.64 persons and 0.47 students per household. Group A tracts are wealthier in terms of per capita income and reported home value than Group B and are located primarily in the southern portion of the county. Group B contains a larger portion of county population.

If we separate the Group B tracts according to whether they are located in the southern or northern portion of the county we see that these two sub groups are a bit different. As you might expect, the ones in the southern portion of the county, Group B2, tend to have a greater proportion of seniors and relatively fewer school age children than those in Group B1 in the northern portion. Average persons and students per household in Group B1 are 2.69 and 0.52 respectively. Average persons and students per household in Group B2 are 2.55 and 0.36 respectively.

We assumed that new residents of the McLeod Farm development would have demographic characteristics similar to those of Group B1 under both Scenario One and Two. We assumed that the new residents of the Clarendon Farms development would have demographic characteristics similar to those of Group B2 under Scenario One and similar to those of Group A under Scenario Two.

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Table 46 -- Demographic Data for Beaufort County Census Tract Groups

Census Tract Group	Total Pop	%Pop:5-17	%Pop:65+	Households	Owner-Occupied Households	%Owner-Occupied Households	Average Household Size	Students	Students per Household	Per capita Income	Median Reported Home Value
Group A	27,578	10.5%	32.2%	12,626	10,934	87%	2.16	1,972	0.16	44,171	350,503
Group B	86,395	19.4%	11.4%	32,408	22,253	69%	2.64	15,207	0.47	20,507	153,074
Group B1	59,443	20.9%	10.4%	21,851	14,951	68%	2.69	11,452	0.52	18,620	123,585
Group B2	26,952	16.0%	13.5%	10,557	7,302	69%	2.55	3,755	0.36	24,667	213,453
Group C	6,964	5.3%	0.1%	498	151	30%	3.00	554	1.11	12,834	166,474
Total County	120,937	16.6%	15.5%	45,532	33,338	73%	2.51	17,733	0.39	25,377	213,900

Notes: All data obtained from 2000 Census report

Group A Census Tracts 12, 22, 101, 102, 103, 106, 107, 109, 111

Description: Census tracts with the largest percentages of senior citizens and smallest percentages of school age children. These tracts are not only the oldest, but also are among the wealthiest in terms of per capita income and median reported home values. These tracts are primarily located in Southern Beaufort Co., especially on HHI.

Group B Census Tracts 1, 2, 3, 5, 6, 7, 8, 9, 11, 21, 104, 105, 108, 110, 112, 113

Description: Census tracts with largest percentages of school age children and smallest percentages of senior citizens. Tract 113 is something of an outlier, but fits best with this group. These tracts are mainly in Northern Beaufort Co., but also include a number of tracts on HHI.

Group B1 Census Tracts 1, 2, 3, 5, 6, 7, 8, 9, 11

Description: These are the tracts in Group B which are located in Northern Beaufort Co. These tracts have somewhat larger households, with more children and are also less wealthy than the Group B tracts in Southern Beaufort Co.

Group B2 Census Tracts 21, 104, 105, 108, 110, 112, 113

These are the tracts in Group B which are located in Southern Beaufort Co. These tracts have somewhat smaller households, with fewer children and are also more wealthy than the Group B tracts in Northern Beaufort Co.

Group C Census Tracts 4, 10

Description: Census tracts containing MCAS-Beaufort and Parris Island

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Population and Student Enrollment Growth. Under each of the two scenarios we assumed that families moving to Beaufort County as a result of the proposed development projects would have demographic characteristics as described above. Each year we assumed that all students would advance a grade level and that graduating high school seniors would leave Beaufort County.

We also assumed that each year 5.2 percent of the households in each development would leave Beaufort County and be replaced by households having the demographic characteristics described above.[30] We adjusted the total population each year to account for the changes in student enrollment.

This method of population and student enrollment projection results in a gradual decline in projected household sizes and numbers of students per household, which is expected to occur as the population ages. It doesn't, however, account for families that have additional children after arriving in Beaufort County. Nor does this method account for the fact that some people who arrive in Beaufort County as children will eventually grow up, remain in Beaufort County, and have children of their own.

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. The 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 3.0 percent on your investments, you would need to invest $970.87 today, since 970.87 X 1.03 = 1000.00. We have used a discount rate of 3.0 percent in converting future expenditure and revenue amounts to present values.

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[30] The 5.2 percent outflow rate is based on Beaufort County population outflow data from the U.S. Census Bureau covering the period 1995 – 2000.

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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: Beaufort County. As Beaufort 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.

We used data from the most recent wage and salary report produced by the South Carolina Association of Counties[31] to estimate the number of employees in each classification that will need to be hired each year to maintain service levels as the population increases. We estimated salary expenditures for the new employees by assuming that each new employee would be paid a salary similar to that of existing employees in the same classification. We obtained salary information from the South Carolina Association of Counties report, County budget documents, and interviews with staff members.

We made use of additional information sources, where available. For example, we used information from the FBI[32] to estimate the number of civilian employees needed in the Sheriff's Department as population increases. In estimating library staffing requirements we relied on information provided by the South Carolina State Library.[33]

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. Table 47 through Table 53 list the salary and benefit assumptions used in this analysis.

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[31] 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>.

[32] 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.

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

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Table 47 -- General Administration, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Building Maintenance	$22,900	16.8%	23.2%	152.0%	$66,868
MIS Specialist	44,300	16.8%	23.2%	45.0%	81,955
Finance Clerk	27,600	16.8%	23.2%	21.0%	44,436
HR Specialist	26,300	16.8%	23.2%	63.0%	53,389

Table 48 -- Tax Administration, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Tax Clerk	$21,600	16.8%	23.2%	20.0%	$34,560
Appraiser	30,800	16.8%	23.2%	24.0%	50,512
GIS Operator	32,000	16.8%	23.2%	28.0%	53,760

Table 49 -- Judicial Administration, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Magistrate	$41,300	16.8%	23.2%	26.0%	$68,558
Deputy Clerk of Court	40,000	16.8%	23.2%	115.0%	102,000
Court Clerk	25,500	16.8%	23.2%	115.0%	65,025

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Table 50 – Public Safety: Law Enforcement, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Investigative Officer	$30,000	16.8%	23.2%	26.0%	$49,800
Patrol Officer	30,000	16.8%	23.2%	26.0%	49,800
Non-sworn Employee	25,000	16.8%	23.2%	26.0%	41,500

Table 51 – Public Safety: Detention Center, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Detention Officer	$31,000	16.8%	23.2%	46.0%	$57,660
Detention Supervisor	36,000	16.8%	23.2%	46.0%	66,960

Table 52 – Public Safety: EMS and Dispatch, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Dispatcher	$24,000	16.8%	23.2%	117.0%	$61,680
EMS Tech/ Paramedic	34,400	16.8%	23.2%	23.0%	56,072

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Table 53 – Public Works, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Equipment Operator	$21,300	16.8%	23.2%	106.0%	$52,398
Supervisor	42,000	16.8%	23.2%	14.0%	64,680

Table 54 – Recreation and Culture, Base Year Operating Expenditure Assumptions by Employee Classification, Beaufort County

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Park and Leisure Staff Members	$20,200	16.8%	23.2%	106.0%	$49,692
Library Staff Members	31,000	17.0%	23.0%	70.0%	65,100

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. 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, Beaufort County contracts with private third parties for landfill and recycling services. We assumed that the total quantity of solid waste placed in the landfill or recycled would increase proportionately with the population. Landfill charges are estimated according to the terms of the landfill contract.

Operating Expenditures: Beaufort County School District. By examining school district financial statements and consulting with school district representatives, we determined that locally-borne school operating costs are approximately $6,000 per student at present. We assumed that real per-student operating costs would remain constant over the study period.

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Operating Expenditures: Burton Fire District. To estimate operating expenditures for the Burton Fire District, we treated the development area as if it was a separate municipality. We then examined fire protection staffing of selected South Carolina municipalities to estimate the need for additional fire stations and fire fighting equipment. This information is presented in Table 55. We then assumed that new stations would be staffed similar to existing Burton Fire District stations.

Based on the information presented in Table 55, we estimated that the Burton Fire District would require two additional stations to serve the Clarendon Farms and McLeod Farm properties. We projected that the stations would be constructed during year two and year five of the study period and each would be staffed with one aerial truck company and two engine companies. We estimated staffing levels from information available on the Burton Fire District web site. [34] We estimated salaries and other operating expenses using data obtained from Burton Fire District budget documents. Our salary and benefit assumptions are presented in Table 56.

Table 55 -- Fire Protection Staffing, Selected S.C. Municipalities

				Companies	
Municipality	**Population (2003)**	**Paid Firefighters**	**Firefighters/1000 population**	**Engine**	**Aerial**
Mt. Pleasant[35]	54,788	120	2.2	5	3
Anderson[36]	25,563	53	2.1	3	2
Georgetown[37]	8,951	44	4.9	4	1
Liberty[38]	3,002	11	3.7	3	0

[34] *Fire Stations*. Undated. <http://www.burtonfd.org/stations.htm>.

[35] Source: <http://www.mpfd.com/index.cfm?section=6&page=2>

[36] 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>

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

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

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Table 56 – Base Year Operating Expenditure Assumptions by Employee Classification, Burton Fire District

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Fire Fighter	$32,000	15.5%	20.5%	20.0%	$49,920

Capital Improvement Expenditures: Beaufort County. Capital expenditures fall into three categories: expanded office facilities to accommodate a larger staff, additional passenger vehicles and other rolling stock to be used by new employees, and additional infrastructure, such as roads and park facilities. We assumed that each new staff member would require the addition of 300 square feet of office or other facility space.[39] We assumed that initial year construction costs would be $200 per square foot, inclusive of furnishings and equipment. We assumed these facility expansions would require the purchase of additional land at the rate of 0.02 acres per new staff member at a cost of $35,000 per acre.

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. Our vehicle purchase assumptions are listed in Table 57.

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

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Table 57 -- Base Year Capital Vehicle Expenditure Assumptions, Beaufort County

Function	Item	Purchase Cost	Employees per Vehicle	Replacement Period (Years)	Annualized Cost per Employee
Tax Administration	Passenger Vehicle: Appraiser	$28,000	1	4	$7,000
Public Safety	Patrol Vehicle: Patrol/Investigative Officer	28,000	1	4	7,000
	Ambulance	106,000	2	10	5,300
Public Works	Passenger Vehicle: Supervisor	28,000	1	4	7,000
	Miscellaneous Equipment: Operators	-	-	-	13,900
Recreation and Culture	Park maintenance vehicles	28,000	1	4	7,000

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 an additional facility similar in size to the County's existing detention center would be constructed in the year it is needed. Based on information in a correctional planning study, performed by Carter Goble Associates, we assumed that this facility would have a cost of $15,000,000.[40]

Day Wilburn Associates (DWA) provided Beaufort County with a summary of the road system modifications, including cost estimates, required to handle the increased traffic flow resulting from the two developments while maintaining an adequate level of service. The suggested system improvements include widening a 14-mile segment of US 21 from 4 lanes to 6 lanes and the construction of an 8-mile, 4-lane bypass from US 21 to SC 802. DWA estimates that the required road system improvements to serve both

[40] Carter Goble Associates, *Beaufort County Correctional Planning Study*. (Columbia, SC: Carter Goble Associates, 2000).

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developments at full build-out will cost approximately $126 million (in 2006 dollars).[41] We have incorporated the DWA estimate into this fiscal impact analysis.

Another important capital expenditure is the purchase of additional park land. We assumed that Beaufort County would require 7.7 acres per 1,000 residents[42] at a cost of $35,000 per acre. We also assumed that the County would spend $722 per capita (in real terms) for improvements, as described in the Southern Beaufort County Regional Plan.[43]

Finally, we estimated the costs of expanding Beaufort County Public Library facilities to accommodate the larger population. Current library standards call for 1.6 square feet of library space per capita. Construction and collection costs are estimated at $254 per square foot. We assumed that library expansion would occur during the fifth year of the study period. Table 58 presents the estimated construction and collection costs for both development scenarios.

Table 58 – Estimated Cost and Capacity of Library Expansion, Scenarios One and Two, Beaufort County, 2007 - 2031

	Scenario One	Scenario Two
Capacity	61,000 sq. ft.	55,780 sq. ft.
Construction Cost	$12,443,000	$11,377,000
Collection Cost	3,052,000	2,791,000
Total Cost	**$15,495,000**	**$14,168,000**

Capital Improvement Expenditures: Beaufort County School District. Capital improvements for the school district include new elementary, middle, and high school

[41] April 17, 2006, Memorandum from Richard Fangmann, Day Wilburn Associates, to Colin Kinton, Beaufort County, *Preliminary Review of Transportation System Impacts for McLeod Farm and Clarendon Farms Developments*.

[42] Based on existing park land area and present county population.

[43] Available for download at: <http://www.bcgov.net/Planning/Southern_Regional_Plan/Southern%20Beaufort%20County%20Regional%20Plan%202-17-06%20draft.pdf>.

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facilities. We used estimated costs and capacities for new school facilities as reported in the DeJong report.[44] The costs and capacities are presented in Table 59.

Table 59 – Estimated Costs and Capacities of New School District Facilities

Facility Type	Land Required	Land Cost	Construction Cost	Total Estimated Cost
Elementary School	15.5 acres	$542,500	$10,900,000	$11,442,500
Middle School	27.5 acres	962,500	18,200,000	19,162,500
High School	67.0 acres	2,345,000	40,800,000	43,145,000

Capital Improvement Expenditures: Burton Fire District. Capital improvements for the fire district include the construction of new stations and the purchase of new fire fighting equipment. In this analysis, we used cost estimates derived for earlier studies. These estimates are presented in Table 60.

Table 60 – Estimated Costs New Fire Protection Facilities and Equipment

Item	Estimated Cost
Three-Bay Station	$750,000
Engine	330,000
Aerial Truck	600,000

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, non-tax revenue, and development impact fees.

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.

[44] DeJong, Inc. 2005. *Beaufort County School District Facility Master Plan Final Report*. (Dublin, OH: DeJong, Inc.).

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ASSUMPTIONS

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

Home Value. Our assumptions about average home values are described in the overview of the fiscal impact assessment (see page 12).

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

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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. For school district taxes for operations we assumed that every new owner-occupied home would be eligible for the full $100,000 tax relief exemption.

Commercial: Commercial property consists of all non-industrial business property. We estimated the portion of existing commercial property that exists to serve local residents and then assumed that additional commercial investment would occur at that rate as population grows. We cross checked our estimate by estimating the total square footage of retail businesses that might be supported by the projected population of the developments. We estimated total commercial development at 3.0 million and 2.9 million square feet under Scenario One and Two, respectively.

The assessed value of the commercial property was calculated by multiplying the estimated 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 it 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 value, as calculated from data obtained from the S.C. Department of

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Revenue.[45] 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.

Non-tax Revenue. Beaufort County 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 commercial property. 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.

Development Impact Fees. Beaufort County and the Burton Fire District collect development impact fees to offset the costs of capital improvements for roads, libraries, parks, and fire protection facilities. We assumed that all impact fees would be collected at the levels currently allowed by law. We assumed that the fees would be collected in the year during which residential and commercial construction occurs.

[45] 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>

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