

# Comprehensive Regional Growth Plan for the Fort Bragg Region Assessment and Recommendations



## Chapter 17 Robeson County

September 2008

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*Submitted to the:*

# **FORT BRAGG AND POPE AFB BRAC REGIONAL TASK FORCE**

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## **DISCLAIMER**

This report is intended as an aid to planners, managers, elected officials, and other decision makers in the Fort Bragg region. Our aim is not to dictate what should be done, but to assist in ongoing efforts to achieve goals and objectives identified and valued by the residents of the region. The recommendations presented in this report are suggestions for how the region could work towards those goals and objectives, based on best available information and current understandings.

The information, projections and estimates in this report are based upon publicly available data and have been prepared using generally accepted methodologies and formulas. The projections and needs presented in this report are based upon best estimates using the available data. It is important to note that currently available information and understandings are incomplete and cannot account for the inevitable, but unpredictable, impacts of unexpected global, national, state, and/or local events. Actual results and needs may differ significantly from the projections of this report due to such unforeseen factors and conditions, as well as inaccuracy of available data, and/or factors and conditions not within the scope of this project. Persons using this information to make business and financial decisions are cautioned to examine the available data for themselves and not to rely solely on this report.

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# Chapter 17: Robeson County

## A. Introduction

This report presents the results of a thorough assessment of the impact of the expansion at Fort Bragg and identifies action items that need to be taken to prepare for this growth. The assessment process included dozens of individual interviews and working group meetings attended by a diverse group of planners and engineers, elected officials, city and county employees, representatives of chambers of commerce, and other stakeholders. Their insights guided teams of experts in their information gathering and analysis. Following the sustainability guidelines described in the introduction to the full report, the information presented here is intended to support proactive, integrated, regional planning through which the region's communities can develop innovative and effective responses to potential as well as already existing problems.

This section, which identifies issues facing Hoke County and presents strategies for accommodating the impact of military-related growth, can be read

either independently or as part of the larger Growth Management Plan. It includes an assessment of the following topics:

- Economic Impact
- Education (K-12)
- Housing
- Information and Communication Technologies
- Water, Sewer, & Solid Waste
- Health Care
- Hospitality and Cultural Resources

Robeson County, which encompasses approximately 949 square miles, is the largest county in North Carolina. It includes fifteen incorporated municipalities: the city of Lumberton; the towns of Fairmont, Lumber Ridge, Marietta, Maxton, McDonald, Orrum, Parkton, Pembroke, Proctorville, Raynham, Red Springs, Rennert, Rowland, and Saint Pauls; and several small unincorporated communities and villages (**Figure 1**).

Figure 1. Map of Robeson County

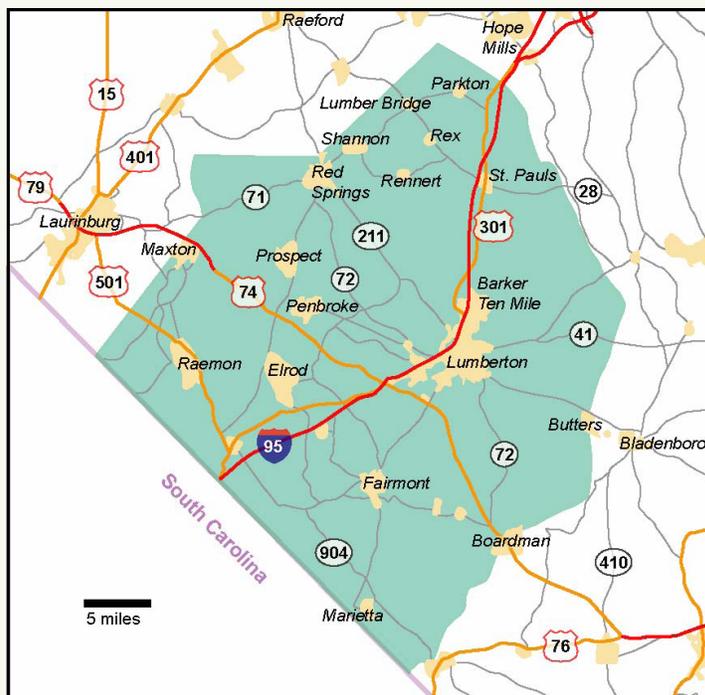


Table 1: Expected Number of Additional Military-Related Personnel

	2006	2007	2008	2009	2010	2011	2012	2013	Totals
Active-Duty Army	2,242	129	1854	1,310	477	-700	153	143	5,608
Active-Duty Air Force	-309	-1088	-786	-579	-460	70	155	50	-3,247
Army Civilians	393	102	149	216	17	1,072	0	0	1,949
Air Force Civilians	23	257	-19	-85	-31	-3	0	0	142
Defense Contractors	1274	632	253	120	120	1,226	504	-27	4,102
Totals	3,623	32	1,451	982	123	1,615	762	116	8,704

**1. Growth Scenarios Used in This Report**

The terms “normal growth” and “expected growth” figure prominently in the following discussion. “Normal”—that is, natural—growth refers to the changes in local population and other economic factors that would be affecting housing markets and school systems even if there were no military expansion at Fort Bragg. “Expected growth” refers to the additional growth that will occur as a result of the planned expansion at Fort Bragg.

The number of additional military-related personnel expected to relocate to the region from 2006 through 2013 is shown in **Table 1**.

In addition, the expected growth scenario includes expected construction expenditures for military projects managed by the Army Corps of Engineers, as well as privatized military housing projects managed by Picerne Housing. Military construction expenditures total \$1.3 billion<sup>1</sup> between 2006 and 2013, and privatized military housing construction totals \$336 million<sup>2</sup> between 2006 and 2013. For a complete discussion of the economic modeling and associated assumptions developed for this project, refer to the regional economic impact chapter.

**2. Recommended Actions**

The “Recommended Actions” section located at the end of each section lists specific actions suggested as responses to the challenges identified in the chapter. All of the recommended actions are important for the region as a whole; each recommended action is classified as being either “critical” or “important”

based on the relevance of the action to the mission of Fort Bragg. Critical actions are urgent actions; failure to implement them could jeopardize the base’s mission. Important actions represent a less urgent “best practice” of more general value to the region, in that failure to implement an important action could adversely affect community planning but would not jeopardize Fort Bragg’s mission.

**B. Economic Impact of Military Growth**

*The infusion of military, civilian, and supporting contractors, together with the concomitant investments needed for construction and related activities, is expected to provide a boost to the Robeson County economy and lead to a more than \$143 million increase in Gross Regional Product in 2013. The Fort Bragg expansion will also account for an additional \$186 million in personal income, \$160 million in disposable income, \$110 million in output (sales), and \$217 million in demand in 2013. The total population for Robeson County in 2013 is expected to be 139,198, including 1,502 that are a result of military expansion.*

**1. Economic Impact**

In order to understand how a community is going to change, it is necessary to identify where that community currently stands. When considering the growth of an entire county, broad demographics that show population, income, employment, and commuting trends can provide a reliable snapshot of where the county is now and where it is headed.

1. Estimates provided by Glenn Prillaman, Fort Bragg Directorate of Public Works

2. Estimates provided by Gary Knight, Picerne Housing

## 2. Population

The population of Robeson County increased by 4.71% between 2000 and 2006. According to North Carolina State Data Center (SDC) estimates, the population of Robeson County increased from 123,241 in April of 2000 to 129,048 in July of 2006, the most recent date for which data are available. That 4.71% population increase was less than the 10.1% average statewide increase for the period.

**Table 2** shows population growth figures for the county’s municipalities between April of 2000 and July of 2006.

As of July 2006, Lumberton had the 36th largest population, Red Springs the 168th, Pembroke the 201st, and Fairmont the 200th largest population among the 541 North Carolina municipalities. The majority of Robeson County’s population growth has occurred in its unincorporated areas.

At the completion of the expansion at Fort Bragg and Pope Air Force Base in 2013, the total population in Robeson County is expected to increase to 139,200, corresponding to an increase of 1,502.

## 3. Income, Gross Regional Product (GRP), Output, and Demand

As a result of the expansion at Fort Bragg, personal income<sup>3</sup> in Robeson County will increase in 2013 by about \$186 million, from roughly \$4.8 billion to \$5 billion (**Table 3**). At the completion of the Fort Bragg expansion in 2013, disposable income<sup>4</sup> will have grown by \$160 million. Similar to the trends seen in other variables, income changes in the regional economy spike at the peak of the military expansion in 2011, then settle to a more gradual increase over the long run as the regional economy absorbs the expansion. Gross regional product (GRP), the most commonly used metric for measuring

3. Personal income, defined as the aggregate income received by all persons from all sources, is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors’ income, rental income, personal dividend income, personal interest income, and personal current transfer receipts, less contributions to government social insurance. (REMI Model Documentation Version 9.5).

4. Disposable income is defined as the portion of personal income that is available for consumers to spend. Disposable income equals personal income, less taxes and social security contributions, plus dividends, rents, and transfer payments (REMI Model Documentation Version 9.5).

Table 2. Population Growth in Robeson County, 2000-2006

Municipality	April 2000 Population	July 2006 Population	Change (number)	Change (%)
Fairmont	2,604	2,737	133	5.11
Lumber Bridge	118	121	3	2.54
Lumberton	20,795	22,800	2,005	9.64
McDonald	119	126	7	5.88
Marietta	164	161	-3	-1.83
Maxton(part)	2,356	2,353	-3	-0.13
Orrum	79	77	-2	-2.53
Parkton	429	544	115	26.81
Pembroke	2,681	2,736	55	2.05
Proctorville	133	130	-3	-2.26
Raynham	72	87	15	20.83
Red Springs (part)	3,493	3,497	4	0.11
Rennert	283	347	64	22.61
Rowland	1,146	1,168	22	1.92
St. Pauls	2,247	2,352	105	4.67
Unincorporated Area	86,522	89,812	3,290	3.80
Robeson County Total	123,241	129,048	5,807	4.71

Table 3. Economic Impact of Military Growth (excludes normal growth)

	2013 (millions)
Personal Income	+ \$186
Disposable Income	+ \$160
Gross Regional Product	+ \$143
Total Sales (output)	+ \$110
Total Demand	+ \$217

value added to the regional economy, is analogous to the gross domestic product used for benchmarking activities in the national economy. While it was thought that the local economy would grow at a fair pace without the military expansion (that is, normal growth), the infusion of military, civilian, and supporting contractors, together with the concomitant investments needed for construction and related activities, is expected to provide a further boost to the Robeson County economy and lead to a GRP increase of \$41 million in 2013. Total sales of local businesses (output) are affected by changes in industry demand, the local region’s share of each market, and international exports from the local region. The corresponding increase in 2013 is estimated to be \$31 million. Total demand is defined as the amount of goods and services demanded by the local region; it includes both imports and local supply. Under the Fort Bragg expansion, total demand for Robeson County is expected to grow by about \$61 million in 2013 (from about \$1.87 billion to \$1.93 billion).

**C. K-12 Education**

*Robeson County Schools, which had a 2007-2008 Month 2 K-12 enrollment of 23,867, will experience military-related growth estimated at 188 students between the 2008-2009 and 2013-2014 school years. The expected impact will be concentrated in the northernmost area of the county, from St. Pauls to the Robeson-Cumberland County line along Interstate 95. Three elementary schools (Magnolia, Rex-Rennart, and Tanglewood) that are in the areas likely to see the largest military-related impact will not experience overcrowding until after 2013-14. St. Pauls High School, however, is currently experiencing a capacity gap of fifty-four students, and this gap is expected to increase to around eighty by 2013-*

*14. Although the facilities are presently sufficient to handle these additional students, there are additional administrative and operations costs. In order to maintain the same level of educational services for six years<sup>5</sup>, approximately \$11.3 million will be necessary to educate the 188 additional military-related students. The local portion of this cost is about \$1.4 million.*

School systems nationwide are facing difficult planning challenges arising from increasing student populations, aging school infrastructures, and increasing complexity in pupil assignment. These challenges are shared by Robeson County, which must fund building and renovation projects based not only on normal population growth but also on the growth that is expected to occur as a result of the military expansion at Fort Bragg.

**1. Current Conditions**

**a. Background**

With a 2007-08 K-12 enrollment of 23,867,<sup>6</sup> the Robeson County school system is the thirteenth largest in North Carolina. Other characteristics of the district include:

- Thirty elementary schools, eleven middle schools, six high schools, and two non-traditional campuses.
- Three thousand two hundred and seventy-three employees, including 107 administrators, 1,490 teachers, 632 teacher assistants, and 1,044 support staff<sup>7</sup>
- Approximately 1% of students in 2007 were connected to the military which resulted in an average Federal Impact Aid per student of \$92.35<sup>8</sup>
- Elementary school students account for 48.8% of the student population, with middle school

5. From the 2008-09 through 2013-14 school years

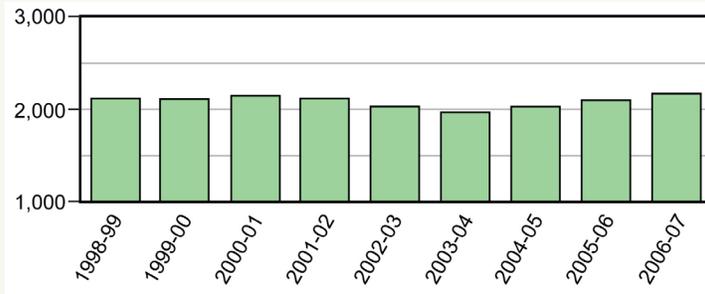
6. North Carolina Department of Public Instruction, 2007-2008

Average Daily Membership (ADM), Month-Two Report.

7. “EAC Education Site Visit, September 9, 2008, Fort Bragg, North Carolina” presented by Dr. Dan Honeycutt, Superintendent, Harnett County Schools.

8. “EAC Education Site Visit, September 9, 2008, Fort Bragg, North Carolina” presented by Dr. Dan Honeycutt, Superintendent, Harnett County Schools.

Figure 2. Resident Live Births, Robeson County



and high school students making up 22.6% and 28.6%, respectively.

**b. Facility Needs**

As part of this assessment, a detailed out-of-capacity analysis of each school in the district was completed. Enrollment projections were developed based on historical trends and the expected impact of military expansion. These projections were compared to the existing permanent capacity of each school and capacity gaps or surpluses were determined. Estimates for the 2008-2009 school year suggest that, system-wide, the existing permanent building capacity is approximately 32,486 students, which means there is a current system-wide capacity surplus of about 9,250 students. The only school that appears to be operating above capacity is the St. Pauls High School (fifty-four students over capacity). The expected military-related impact will be concentrated in the northernmost area of the county, from St. Pauls to the

Robeson-Cumberland County line along Interstate 95. Three elementary schools (Magnolia, Rex-Rennart, and Tanglewood) that are in the areas likely to see the largest military-related impact will not experience overcrowding until after 2013-14.

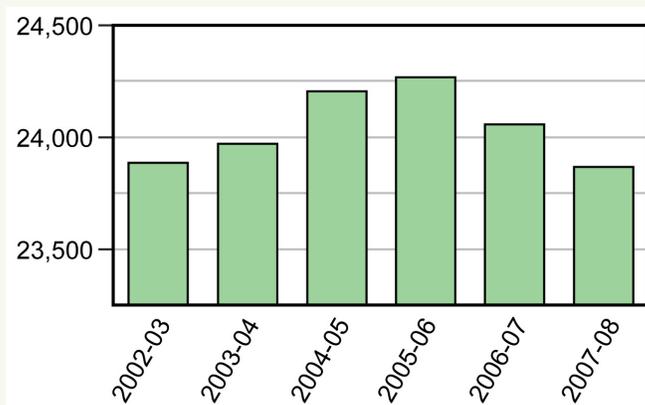
**c. Historical Growth**

Historical trends for Robeson County resident live births have been holding steady since 1998, with a slight upturn in recent years (**Figure 2**).<sup>9</sup>

The six-year trend in Average Daily Membership for Month 2 shows student populations increasing by about 136 students between the 2002-03 and 2005-06 school years but then decreasing by 199 students per year (**Figure 3**).

9. North Carolina Department of Health and Human Services

Figure 3. Average Daily Membership (ADM) for Month 2 in Richmond County schools.<sup>1</sup>



1. ADM is the sum for all students of the total number of school days during the second month of the school year that the student's name is on the class roll divided by the number of school days in that month. ADC provides a more accurate count of the number of students in school than does enrollment.

## 2. Future Needs

### a. Geographic Distribution of Growth

Robeson County schools experienced a five-year (2002-03 to 2007-08) average annual growth rate of 0.01%, with yearly student population growth rates averaging between -0.01% and 0.01%. The projected normal growth rate for Robeson County schools is expected to average 0.33% per year. The military-related growth is expected to add between 200 and 250 school-aged children to Robeson County schools between the 2008-09 and 2013-14 school years.

**Figure 4** shows how the expected growth in the K-12 student population will be distributed throughout the county. This map is derived from a combination of GIS analyses—of where current students live, where military personnel live, and where land parcels available for development are located—and interviews about land use conducted with a wide range of knowledgeable stakeholders. Both information sources are important; strong residential growth does not necessarily correlate with increasing student population, and expert local knowledge is required to identify likely patterns. The resultant map reveals growth potential in the northern part of

the county, including St. Pauls. This area offers easy access to the Interstate 95 and is about twenty-five miles from Fort Bragg.

The enrollment projections displayed in **Figure 5** are based on historical school enrollment records and available data about the number of newborn babies in each school district. The analysis used cohort survival ratios, which indicate the proportion of students enrolled in one grade in a specific school year relative to the number of students enrolled in the next grade level and school year. These ratios were used to develop a system-wide, ten-year enrollment forecast, which was then compared with estimates of school capacity in order to project capacity shortfalls in 2013.

### 3. Gaps

As mentioned, approximately 188 additional students will enroll in Robeson County schools as a result of military-related growth.<sup>10</sup> Although the facilities are presently sufficient to handle these additional

10. Compares the 2008-09 enrollment to the projected 2013-14 enrollment.

Figure 4. Growth potential for K-12 student population. Darker blue indicates areas where the number of school-aged children is expected to grow the most

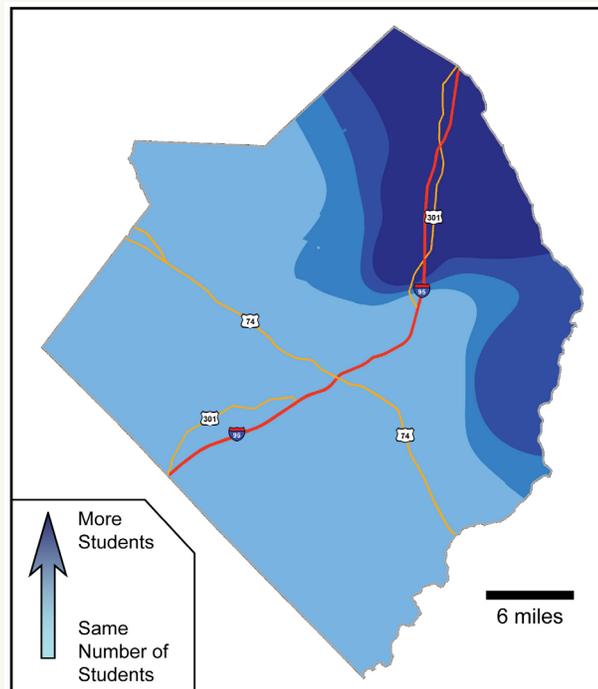
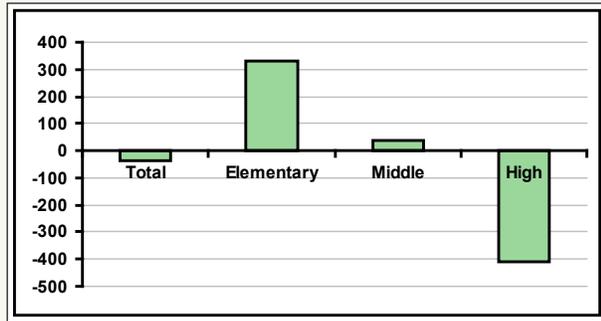


Figure 5. Projected Growth in Student Enrollment by School Level (2008-09 to 2013-14)



students, there are additional administrative and operations costs, such as salaries, instructional supplies, utilities, maintenance, transportation, etc. The Robeson County school district operates with money from local, state, and federal sources. Public schools are funded largely through tax dollars. The State provides the overwhelming majority of school funding in Robeson County, with the federal government providing the least. Seventy-two percent of school funding comes from state sources, sixteen percent from federal sources, and twelve percent from local sources.<sup>11</sup> The total per-pupil expenditure in Robeson County is \$8,315 annually compared to an average of \$7,800 for the Tier I counties. Based on these costs, in order to maintain the same level of educational services for six years<sup>12</sup>, approximately \$11.3 million will be necessary to educate the 188 additional military-related students. The local portion of this cost is about \$1.4 million

11. North Carolina Department of Public Instruction, 2006-2007 School Statistical Profile

12. From the 2008-09 through 2013-14 school years

#### 4. Recommended Actions

##### **Critical Action 1: Identify potential funding sources for the operation of the additional school capacity**

**Description:** Current funding sources will not provide sufficient funding to fill the operating needs of the County. A committee should be formed to identify potential sources for additional funding. Potential funding sources include: (1) a higher level of Federal Impact Aid, which is supposed to compensate local educational agencies for “substantial and continuing financial burden” resulting from federal activities such as the enrollments of children of military parents who live or work on federal land. In addition, the committee should explore the possibilities for obtaining special funding from the Department of Defense to deal with the special burden imposed on local schools by the BRAC process. Legislation, such as the Military Children’s School Investment Act recently introduced in Congress by Congressman Robin Hayes, should be supported.

**Responsible Parties:** With the support of the BRAC Regional Task Force, Hoke County Schools and Hoke County Government should work corroboratively to pursue all available funding resources.

## D. Housing

*The Robeson County for-sale housing market, which continues to outperform the national and regional housing markets, has a history of price appreciation. Although the local market has begun to slow in the last eighteen months, negative impacts to the local economy are being offset by military spending at Fort Bragg. Robeson County offers its present and future residents a wide variety of housing choices, ranging from smaller homes for less than \$100,000 to larger estate homes for \$150,000 plus.*

### 1. Current Conditions

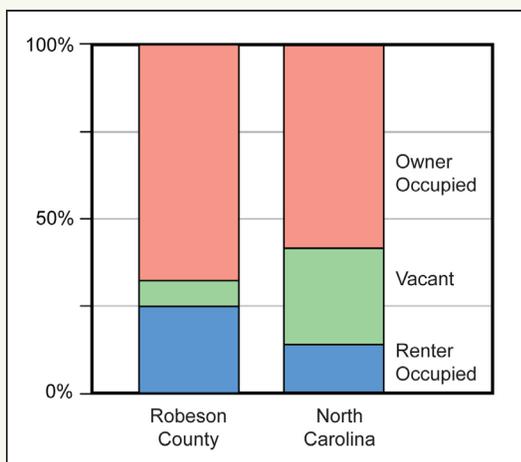
#### a. Housing Characteristics

The number of housing units in Robeson County in 2007 is estimated to be 50,252,<sup>13</sup> which is up from 47,779 housing units in 2000. The average annual growth rate for this period would thus be an estimated 0.07%. Approximately 4,015 (8.0%) of these housing units are vacant, compared to a statewide vacancy rate of 14.2%, as shown in **Figure 6**. The remaining 46,237 units in Robeson County are owner-occupied (73.1%) and renter occupied (26.9%).<sup>14</sup> State-wide rates for owner-occupied units and renter-occupied units are 59.6% and 27.9%, respectively.

13. Claritas Research

14. Claritas Research

Figure 6. Housing occupancy by type in Robeson County in 2007, compared with the statewide average



#### b. For-Sale Housing

Because complete information on Robeson County’s for-sale housing is not available, this analysis combines figures for existing and newly constructed single-family homes. The average sales price of a single-family home grew from \$97,483 to \$101,970 between 2005 and 2006, an annual-increase of 4.4%. For 2007, the average sales price was \$103,860, which represents an increase of 1.9% over 2006.<sup>15</sup> In all, 1,800 single-family units were sold in Robeson County between 2002 and 2006, an average of 360 units annually. Sales in 2007, a total of 378 units, were consistent with this trend. Three-bedroom units, which comprised 65% of all units sold, were sold in an average of 152 days. Currently there is an eight-month inventory of homes on the market, compared to a national inventory of approximately nine months for existing homes and slightly less than ten months for new homes. As of December 2007, the locally available inventory of all homes (both existing and new) included 161 three-bedroom units having an average price of \$109,900.

An affordability analysis measures whether a typical homebuyer could qualify for a mortgage loan on a typical new home in Robeson County<sup>16</sup>. Factors to consider when determining whether the typical homebuyer can qualify for a mortgage on a typical Robeson County home include:

- The median price for a typical new three-bedroom, two-bathroom home containing approximately 1,400 square feet is \$82,000.
- A minimum down payment of 5% of the purchase price is required.
- Mortgage principal and interest cannot exceed 28% of the median monthly income.
- The prevailing mortgage interest rate is assumed to be 6.5%.

Affordability analyses are commonly based on index values. An index value of 100 means that a

15. The Median sales price of a three-bedroom unit, including both existing and new construction. Data provided by the Lumberton Area MLS

16. According to the Ft Bragg Community Impact Assessment (page 17), 71% of the military families coming into the area will be pay grades E3 through E5 and 10% will be pay grades O1 through O3

homebuyer has exactly enough income to qualify for a mortgage on a typical, median-priced new home. An index value above 100 signifies that a homebuyer earning the median income has more than enough income to qualify for a mortgage loan on a median-priced new home. For example, an affordability index of 120 means that a homebuyer has 120% of the income necessary to qualify for a loan covering 95% of a median-priced, new single-family home. An increase in the index shows that this homebuyer is more able to afford the typical median priced new home.

Single, active-duty military personnel have affordability indices ranging from 149 for junior enlisted personnel (E2) to 498 for a company grade officer (O5). This suggests that the typical three-bedroom, two-bathroom new home would be affordable for junior enlisted personnel.

In terms of housing production, single-family housing permits rose between 2003 and 2005, with 391 permits being issued in 2005. In 2006, the number of permits dropped to 311, and only 196 single-family permits were issued in 2007. Permitting activity is likely to keep declining as the existing inventory of new homes is reduced.

**c. Rental Housing**

The price of rental housing typically averages from \$447 a month for a one-bedroom unit to \$519 a month for a three-bedroom. Construction of multi-family properties has halted since 2003 as no multi-family housing permits have been secured since that time. Incoming military families in all pay grades and civilian families with incomes at or below 84% of median income should be able to find homes and to pay rents and utilities in Robeson County.

Under U.S. Department of Housing and Urban Development (HUD) guidelines, a family should spend no more than 30% of its income on rent and utilities. To assess the affordability of housing for military personnel, military income is defined as base pay, subsistence allowance, and housing allowance. Representative pay grades at the lowest number of service years are used when determining the floor necessary to achieve affordability for military families.

HUD defines a Fair Market Rent as the average rent in the county, by unit size. **Table 4** provides an analysis of the ability of military families at various military income levels to pay the fair market rent.

Table 4. Rental Affordability in Robeson County

Two Person Household						
Rank	E2	E6	W2	W4	O3	O5
Annual Income	\$31,377	\$51,322	\$68,454	\$91,588	\$71,553	\$105,225
Monthly Housing Expense @ 30% of Annual Income	\$784	\$1,283	\$1,711	\$2,290	\$1,789	\$2,631
Fair Market Rent (1-bedroom)	\$447	\$447	\$447	\$447	\$447	\$447
Affordability (Gap)/Surplus	\$337	\$836	\$1,264	\$1,843	\$1,342	\$2,184
Fair Market Rent (2-bedroom)	\$519	\$519	\$519	\$519	\$519	\$519
Affordability (Gap)/Surplus	\$265	\$764	\$1,192	\$1,771	\$1,270	\$2,112
Three- and Four-Person Household						
Rank	E2	E6	W2	W4	O3	O5
Annual Income	\$31,377	\$51,322	\$68,454	\$91,588	\$71,553	\$105,225
Monthly Housing Expense @ 30% of Annual Income	\$784	\$1,283	\$1,711	\$2,290	\$1,789	\$2,631
Fair Market Rent (2-bedroom)	\$519	\$519	\$519	\$519	\$519	\$519
Affordability (Gap)/Surplus	\$265	\$764	\$1,192	\$1,771	\$1,270	\$2,112
Fair Market Rent (3-bedroom)	\$623	\$623	\$623	\$623	\$623	\$623
Affordability (Gap)/Surplus	\$161	\$660	\$1,088	\$1,667	\$1,166	\$2,008

## 2. Future Conditions

### a. Anticipated For-Sale Housing Need

The future need for for-sale homes to accommodate the normal growth and the expected military growth in the County can be estimated by using population projections and dividing the population growth by the average household size. The percentage of homeowner households is applied to the total households to determine the need for housing.

**Table 5** shows 2,221 for-sale units will be needed to house the total growth expected from 2007 through 2013. The majority of these units (1,935) will be needed for the population associated with normal growth, and thus would have been needed even without the base expansion; the remainder (286) is due to military-related growth. Given the existing inventory of for-sale homes in the County, it is expected that most of this need will be addressed through the sale of homes already on the market. It should be noted that this is an estimate of homebuyer requirements and should be relied upon only as a guideline.

Appendix A highlights the development that is planned for the County.

### b. Anticipated Rental Housing Need

Similar to the for-sale homes, the future need for rental homes to accommodate the normal growth and the expected military growth in the County can be estimated by using population projections and dividing the population growth by the average household size. The percentage of renter households is applied to the total households to determine the need for housing.

**Table 6** shows 817 for-rent units will be needed to house the total growth expected from 2007 through 2013. The majority of these units (712) will be needed for the population associated with normal growth, and thus would have been needed even without the base expansion; the remainder (105) is due to military-related growth. It should be noted that this is an estimate of renter requirements and should be relied upon only as a guideline.

Table 5. Needs Analysis of For-Sale Housing Units in Robeson County

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	130,472	131,823	133,124	134,284	135,398	136,527	137,647	
Expected Growth	492	861	1,052	1,094	1,255	1,410	1,551	
Total	130,964	132,684	134,176	135,378	136,653	137,937	139,198	
Total Households								
Normal Growth	48,145	48,643	49,123	49,551	49,962	50,379	50,792	
Expected Growth	182	318	388	404	463	520	572	
Total	48,326	48,961	49,511	49,955	50,425	50,899	51,365	
Homeowner Households								
Normal Growth	35,194	35,558	35,909	36,222	36,522	36,827	37,129	
Expected Growth	133	232	284	295	339	380	418	
Total	35,326	35,790	36,193	36,517	36,861	37,207	37,548	
For-Sale Housing Units								
Normal Growth	--	364	351	313	300	305	302	1,935
Expected Growth	--	100	52	11	43	42	38	286
Total	--	464	402	324	344	346	340	2,221

### 3. Gaps

There are several housing-related challenges that continue to face the region and the county. The inventory of for-sale properties remains high, credit standards are tightening, availability of future affordable rental housing is unclear, and green building efforts require additional emphasis. These gaps are discussed in this section.

The number of homes listed for sale has recently declined in many markets throughout the country. One factor contributing to reduced inventories is that potential sellers are not listing their homes because they do not want to compete with builders and banks that have been cutting prices in order to reduce their inventories of new or foreclosed homes. Although the supply of for-sale housing is no longer rapidly increasing, the inventories remain abundant. Until the for-sale inventories return to a six month supply, local marketing efforts should continue and those interested in constructing additional new for-sale housing should be cautious.

Credit standards have been getting tighter all year, reducing the number of people who qualify for loans. However, many potential homebuyers can still qualify for a loan. Qualified borrowers should have little difficulty finding conforming and FHA-insured mortgages. Given the present “buyer’s housing market”, it may be time to accelerate homebuyer financing and counseling efforts. Of course, the continued increase in foreclosures nationally should give caution to any agency considering such an initiative. Many families may not be ready to purchase a home. The number one barrier to buying a home is poor credit. In addition, some families simply cannot afford a down payment. Buyer investment in the home is important for the long-term sustainability of home ownership. For those families that are ready, homebuyer education and counseling that provides both pre-purchase and post-purchase counseling is essential. Such counseling and education will promote awareness of the home-buying process, educate homebuyers on financing alternatives, and provide information necessary to

Table 6. Needs Analysis of Rental Housing Units in Robeson County

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	130,472	131,823	133,124	134,284	135,398	136,527	137,647	
Expected Growth	443	812	1,003	1,045	1,206	1,361	1,502	
Total	130,915	132,635	134,127	135,329	136,604	137,888	139,149	
Total Households								
Normal Growth	48,145	48,643	49,123	49,551	49,962	50,379	50,792	
Expected Growth	163	300	370	386	445	502	554	
Total	48,308	48,943	49,493	49,937	50,407	50,881	51,346	
Renter Households								
Normal Growth	12,951	13,085	13,214	13,329	13,440	13,552	13,663	
Expected Growth	44	81	100	104	120	135	149	
Total	12,995	13,166	13,314	13,433	13,560	13,687	13,812	
For-Rent Housing Units								
Normal Growth	--	134	129	115	111	112	111	712
Expected Growth	--	37	19	4	16	15	14	105
Total	--	171	148	119	127	127	125	817

sustain homeownership—information, for example, on home maintenance and budgeting.

Green building is another consideration. Green building is “the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building’s life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction”<sup>17</sup>. Green buildings reduce the overall impact of the built environment on human health and the natural environment by more efficiently using energy and other natural resources and reducing waste, pollution, etc. As mentioned, caution should be exercised in the construction of new housing, particularly for-sale housing. However, when new construction or rehabilitation is needed the integration of green building standards is encouraged.

The availability of affordable rental housing for lower income households is essential to the success of local community and economic development efforts. To date, fair market rents have been affordable to the majority of households in the county. Recent trends suggest that the rental housing market is tightening. More families are opting to rent instead of buy a home and more lower-income households are moving to the area. The rental market should continue to be assessed to ensure that new rental developments not only provide market-rate housing, but also provide affordable opportunities for lower-income households.

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17. U.S. Environmental Protection Agency (<http://www.epa.gov/greenbuilding/pubs/about.htm>)

## 4. Recommended Actions

### **Important Action 1: Secure state and Federal funds to provide homebuyer financing, counseling, and education for potential homebuyers.**

*Description:* Given the present “buyer’s housing market” in Robeson County, it may be time to accelerate homebuyer financing and counseling efforts. Of course, the continued increase in foreclosures nationally should give caution to any agency considering such an initiative. Many families may not be ready to purchase a home. The number one barrier to buying a home is poor credit. In addition, some families simply cannot afford a down payment. Buyer investment in the home is important for the long-term sustainability of home ownership. For those families that are ready, homebuyer education and counseling that provides both pre-purchase and post-purchase counseling is essential. Such counseling and education will promote awareness of the home-buying process, educate homebuyers on financing alternatives, and provide information necessary to sustain homeownership—information, for example, on home maintenance and budgeting.

*Responsible Parties:* Local realtors, homebuilders, Robeson County, financing institutions, and local HUD-approved counseling agencies<sup>18</sup> should coordinate the promotion of marketing and outreach; the BRAC Regional Task Force could lend a hand in this effort. The Community Development Departments of the city and the county are also well positioned to take the lead.

### **Important Action 2: Participate in FORSCOM Housing Fairs and other events organized by the Army and the BRAC Regional Task Force.**

*Description:* The Fort Bragg region offers a wide variety of home-buying opportunities. There is a substantial housing inventory, especially in the new home market. Personnel relocating from Atlanta with FORSCOM are of particular interest. A recent survey confirms that the income of these individuals is high and that they have a desire for larger-estate homes in secure communities. This group is also highly reliant on the Internet, in both their homes and their offices. Participation in homebuyer fairs at FORSCOM in Atlanta and participation in a regional website designed for the FORSCOM and defense contractor audiences are recommended. These efforts, coupled with normal demand for local housing, should reduce the existing inventory of available homes, resulting in a significant increase in new home production levels by late 2009 or 2010.

18. <http://www.hud.gov/offices/hsg/sfh/hcc/hcs.cfm>

**Responsible Parties:** The BRAC Regional Task Force has asked Robeson County to take the lead in developing a booth for display at any upcoming Atlanta housing fairs held for the benefit of FORSCOM personnel. County officials should coordinate closely with local realtors, homebuilders, and other real estate professionals to ensure that Robeson County is well represented. The BRAC Regional Task Force could also take a coordinating role in the development of a comprehensive website specifically designed with FORSCOM and defense contractor personnel in mind. This site should be a one-stop shop for everything in the region—from health care and education to housing and leisure activities—with all counties in the region well represented. The website recommendation is described in greater detail in the regional portion of the Comprehensive Regional Growth Plan.

**Important Action 3: Encourage development of affordable rental housing.**

**Description:** While Robeson County offers a wide variety of home buying opportunities, it offers fewer apartments and other rental units. The vacancy rate has declined substantially as the foreclosure crisis forces former homeowners into rental housing. Rental housing is now in short supply. Although most housing for rent in the region is affordable to both military personnel and civilians, households at or below 84% of the area median income who are supporting families of three or more may have difficulty finding affordable rental housing.

**Responsible Parties:** Local apartment developers, property managers, city and county governments, financing institutions, and the State of North Carolina Housing Finance Agency should coordinate the development of new rental housing; the BRAC Regional Task Force could lend a hand in this effort. The City and County Community Development Departments are also well positioned to take the lead.

**Important Action 4: Promote sustainability through the use of “green building” technologies.**

**Description:** Green building practices offer an opportunity to create environmentally sound and resource-efficient buildings by using an integrated approach to design. Green buildings promote resource conservation, including energy efficiency, renewable energy, and water conservation features; consider environmental impacts and waste minimization and help create a healthy and comfortable environment.<sup>19</sup> One example of an approach to “green building” is The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ which advocates sustainability in the home building industry.

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19. [www.hud.gov](http://www.hud.gov)

***Responsible Parties:*** Robeson County and its municipalities can support the construction of sustainable housing in a number of ways. The county could adopt “green building” standards for private sector construction, incorporate sustainability checklists in rezoning and permitting processes, implement a fast-track building permit process for “green building”, provide financial incentives to build sustainable housing, and support statewide legislation to promote the construction of sustainable housing.

## E. Water, Wastewater, and Solid Waste

*The expected military-related growth in Robeson County could add .225 million gallons per day (MGD) to the county's peak water and sewer demand. Meeting projected normal demand through 2030 will cost the county approximately \$44 million for water and \$13.4 million for wastewater. Roughly \$1.1 million and \$2.3 million will be added for the cost of water and wastewater, respectively, to meet the expected military growth..*

### 1. Current Conditions

There are several water and wastewater systems located in Robeson County. Each of these systems are briefly described in this section.

#### a. Water

*Robeson County:* Robeson County, which is located in the Cape Fear River Basin, runs its own public water system. The system has approximately 1,265 miles of water distribution lines and a population of 69,100. The average daily demand, which is entirely from residential customers, is 12.841 million gallons per day (MGD). The county obtains its water from twelve wells that have a combined twelve-hour yield of 29.178 MGD. Robeson County has a regular connection with the Red Springs water system and emergency connections with the Boardman, Hoke County, Lumberton, Maxton, Parkton, Pembroke, Rowland, and St. Pauls' water systems.

*Town of Fairmont:* Fairmont, which is located in western Robeson County, owns and operates its own water system. The system has approximately eighteen miles of water distribution lines and serves a population of 2,600. The average daily demand is 0.333MGD. Eighty-five percent of Fairmont's water customers are residential and 15% are commercial. Historically, the system received its water from three wells that had a total twelve-hour yield of 1.8 MGD. Fairmont, which has an emergency connection to Robeson County's water system, has a finished water storage capacity of 0.800 MGD.

*City of Lumberton:* Lumberton, which is located in the center of the county, owns and operates its

own water system. The system has approximately 225 miles of water distribution lines and serves a population of 23,500. The average daily demand is 6.389 MGD. Total water use is divided as follows: eighty-one percent residential, nineteen percent commercial, and less than one percent industrial. Lumberton obtains its water from deep wells and maintains a surface-water treatment plant. The system has six wells with a total twelve-hour yield of 7.20 MGD; the surface water plant has a permitted capacity of 16.0 MGD. This gives the city a combined capacity of 23.2 MGD. The Lumberton system, which has a regular connection to the Robeson County water system, has a finished water storage capacity of 9.0 MGD.

*Town of Maxton:* Maxton, which is located in western Robeson County, owns and operates its own water system. The system has approximately twenty-seven miles of water distribution lines and serves a population of 2,825. The average daily demand is 0.250 MGD. Total water use is divided as follows: ninety-two percent residential, seven percent commercial, and less than two percent institutional. The town obtains its water from deep wells that have a maximum capacity of 0.75 MGD. Maxton also has emergency connections to the Robeson County and Laurinburg-Maxton Airport water systems. The Maxton system has a finished water storage capacity of 0.350 MGD.

*Town of Parkton:* Parkton, which is located in northern Robeson County, owns and operates its own water system. The system has approximately six miles of water distribution lines and an average daily demand of 0.062 MGD that serves a population of 531. Total water use was divided as follows: eighty-seven percent residential, ten percent commercial, and three percent institutional. The town obtains its water from two deep wells that have a combined twelve-hour yield of 0.288 MGD. The Parkton system, which also has an emergency connection to the Robeson County water system, has a finished water storage capacity of 0.075 MGD.

*Town of Pembroke:* Pembroke owns and operates its own water system. Pembroke, which is located in northwestern Robeson County, has approximately twenty miles of water distribution lines that serve

a population of 2,907. The system's average daily demand of 0.433 MGD comes almost entirely from residential users; very little is used for industrial and institutional purposes. The town obtains its water from two deep wells that have a combined twelve-hour yield of 1.40 MGD. Pembroke, which has an emergency connection to the Robeson County water system, has a finished water storage capacity of 1.0 MGD.

*Town of Red Springs:* Red Springs, which is located in northern Robeson County, owns and operates its own water system. The town has approximately twenty-five miles of water distribution lines that serve a population of 3,472. The average daily demand is 0.782 MGD, eighty-seven percent of which goes to residential customers, with eleven percent going to commercial customers, and two percent going for industrial uses. The town gets its water from three deep wells and has a central groundwater treatment plant capacity of 1.5 MGD. The Red Springs system, which has a regular connection to the Robeson County water system, has a finished water storage capacity of 2.325 MGD.

*Town of Rowland:* Rowland, which is located in western Robeson County, owns and operates its own water system. The system has approximately twenty-one miles of water distribution lines that serve a population of 1,160. The average daily demand is 0.120 MGD. Total water use was divided as follows: eighty-nine percent residential, nine percent commercial, and two percent industrial. The town gets its water from two deep wells and has a central ground water treatment plant with a capacity of 0.735 MGD. Rowland has an emergency connection to the Robeson County water system and a finished water storage capacity of 0.150 MGD.

*Town of St. Pauls:* St. Pauls, which is located in northeastern Robeson County, owns and operates its own water system. The system has approximately seventeen miles of water distribution lines and an average daily demand of 0.370 MGD that serves a population of 3,020. Total water use was divided as follows: eighty-seven percent residential, twelve percent commercial, one half percent industrial, and one half percent institutional. St. Pauls obtains its water from three deep wells and has a central

groundwater treatment plant with a twelve-hour yield of 1.0 MGD. St. Pauls has a regular connection to the Robeson County water system and has a finished water storage capacity of 0.450 MGD.

## **b. Wastewater**

*Robeson County:* Robeson County proper does not operate a wastewater treatment system.

*Town of Fairmont:* Fairmont has one wastewater treatment plant (WWTP) with a permitted capacity of 1.75 MGD, expandable to 3.0 MGD. The plant, which discharges into the Lumber River, also serves the towns of Boardman, Cerro Gordo, and Fair Bluff. A project designed to provide collection lines to these towns was under construction at the time of this report. Current average daily flow is 0.550 MGD. Flows from the Boardman/Cerro Gordo collection system are expected to increase this amount to 0.800 MGD.

*Town of Lumberton:* Lumberton's three WWTPs have a combined permitted capacity of 21.631 MGD. All three plants, which have a combined average daily flow of 7.57 MGD, discharge into the Lumber River. The Lumberton system has 8,904 sewer connections; 419 water customers used septic systems.

*Town of Maxton:* Maxton's WWTP plant, which discharges into the Little Shoe Heel Creek, has a permitted capacity of 0.600 MGD. The system has 1,334 sewer connections and an average daily flow of 0.252 MGD.

*Town of Parkton:* Parkton has one WWTP with a permitted capacity of 0.200 MGD. Current average daily flow is 0.060 MGD. The plant discharges into the Marsh Swamp. The Parkton system has 180 sewer connections. Nineteen water customers use septic systems.

*Town of Pembroke:* Pembroke has one WWTP that has a permitted capacity of 1.330 MGD. Current average daily flow is 0.617 MGD. The Pembroke system, which discharges into the Lumber River, has 825 sewer connections. There are fifty water customers using septic systems.

*Town of Red Springs:* Red Springs has one WWTP with a permitted capacity of 2.500 MGD. Current average daily flow is 1.00 MGD. The Red Springs system, which discharges into the Little Raft Swamp, has 1,357 sewer connections. There are eighty water customers using septic systems.

*Town of Rowland:* Rowland has one WWTP with a permitted capacity of 0.690 MGD. Current average daily flow is 0.293 MGD. The Rowland system, which discharges into Shoeheel Creek, has 650 sewer connections. There are forty-one water customers using septic systems.

*Town of St. Pauls:* St. Pauls has one WWTP with a permitted capacity of 0.500 MGD. Current average daily flow is 0.225 MGD. The St. Pauls system, which has 953 sewer connections, discharges into the Big Marsh Swamp. There are fifty-eight water customers using septic systems.

### **c. Solid Waste**

There are nine governments with solid waste management programs in Robeson County. These include the county, the city of Lumberton, and the towns of Fairmont, Maxton, Parkton, Pembroke, Red Springs, Rowland, and St. Pauls. Residents in the towns of Lumber Bridge, McDonald, Marietta, Orrum, Proctorville, Raynham, and Rennert use the county's facilities.

*Solid-Waste Collection:* Robeson County collects residential waste and recyclables at eight staffed convenience centers and twenty-nine un-staffed collection sites. The county plans to construct eight more staffed convenience centers and to reduce the number of un-staffed collection sites in the future. Waste collected at each convenience center/site is transferred to the Robeson County Landfill in St. Pauls.

Each of the county's staffed convenience centers is fenced for security and, so as to limit the number of trips for transfer vehicles, is equipped with a stationary compactor for residential waste.

Fairmont, Lumberton, Maxton, Parkton, Pembroke, Red Springs, Rowland, and St. Pauls all offer weekly

residential curbside waste collection. Maxton, Red Springs, and St. Pauls collect waste using town staff. Fairmont, Lumberton, Parkton, Pembroke, and Rowland contract with private haulers for waste collection.

Most solid waste collected in Robeson County is taken to one of the following facilities:

- The Robeson County Landfill, which is owned and operated by the county under State Permit No. 78-03.
- The Scotland County Transfer Station, which is owned and operated by Scotland County under State Permit No. 83-02T.
- The Scotland County C&D Landfill, which is owned and operated by Scotland County under State Permit No. 83-01.

*Recycling.* Robeson County provides recycling services at each of its staffed convenience centers. Pembroke provides curbside collection of recyclables. Red Springs has two staffed convenience centers for the collection of recyclables. Fairmont has one un-staffed recyclable collection site, and Lumberton has two. Maxton provides curbside collection of scrap metal and appliances (white goods). Parkton, Rowland, and St. Pauls do not provide recycling services. Robeson County does allow residents of municipalities to use its convenience centers for the drop-off of recyclables.

*Special Waste Management.* Robeson County collects used oil and filters, antifreeze, lead acid batteries, and tires. With the exception of Pembroke, which collects tires, no other municipality provides collection of special wastes.

*Yard Waste Handling.* Robeson County collects yard waste and mulches/composts it at either its own landfill facility or at facilities in Fairmont, Lumberton, Maxton, and Red Springs. St. Pauls also disposes of yard waste in its land clearing and inert debris (LCID) landfill. With the exception of Parkton, Pembroke, and Red Springs, all of the county's municipalities provide curbside collection of yard wastes.

Table 6. Local Water and Sewer Rates (FY 07-08) <sup>1</sup>

	Water Bill for 5,000 Gallons per Month		Sewer Bill for 5,000 Gallons per Month		Operating Ratio
	Local Rate	Comparison Group	Local Rate	Comparison Group	
City of Lumberton	\$15.22	Near median	\$25.13	At median	1.43
Town of Maxton	\$19.50	At median	\$21.45	At median	.96
Town of Pembroke	\$14.11	Near median	\$22.82	At median	1.14
Town of Red Springs	\$18.54	At median	\$25.54	At median	n/a
Town of Rowland	\$37.44	Near median	\$39.44	Near median	.71

1. UNC School of Government Environmental Finance Center. Rates Dashboard Version 2008.04. website - www.efc.unc.edu.

*Solid-Waste Disposal.* Robeson County currently operates a landfill facility with separate municipal solid waste and construction and demolition debris disposal areas in St. Pauls (under State Permit No. 78-03). In FY 2005-06, the county disposed of 89,296 tons of solid waste and 31,801 tons of C&D waste. Based on its current facility plan, the county estimates that it has twenty-five to thirty years of remaining disposal capacity. There may be potential for additional expansion at this site. Robeson County currently charges tipping fees of \$32.50/ton for solid waste and \$22.50/ton for wastes.

*Program Costs and Funding.* The county’s solid-waste program, which is funded primarily by household fees and landfill tipping fees, is operated as an enterprise fund.<sup>20</sup>

The Fairmont, Lumberton, Maxton, Parkton, Pembroke, Red Springs, Rowland, and St. Pauls solid-waste programs are funded by household fees and/or property tax revenues/general fund.

**d. Local Rate Structures**

The county’s water rates range from a low of \$14.11 to a high of \$37.44. Compared with rates charged by other North Carolina systems having similar revenues, rates are at or near median. Local sewer rates, which range from \$21.45 to \$39.44, are all at or near the median of the comparison groups as well. The Town

20. An enterprise fund for governmental activities is a self-sustaining cost center that operates in a manner similar to private business operations. Many local governments have shifted solid-waste management services from the General Fund to an enterprise fund. This means that local governments have started viewing solid-waste services as a separate cost center with its own capital program and its own system of fees and charges so that it can operate on a stand-alone basis.

of Rowland has a low operating ratio and the highest water and sewer rates in the county (**Table 6**).

**2. Gaps**

**a. Water and Wastewater**

Meeting projected demand without considerations for the military-related growth through 2030 will cost the County approximately \$44 million for water and \$13.4 million for sewer.<sup>21</sup> The population increase in Hoke County as a result of military growth is projected to be about 1,502 people in 2013. This could translate into an additional design water and sewer demand of approximately .225 MGD, resulting in an additional capital requirement of \$1.1 million for water and \$2.3 million for sewer. These estimates are based on an assumed cost of \$5 per gallon for water and \$10 per gallon for sewer. The actual cost of this infrastructure will be dependent on a number of variables, including the specific configuration of each plant; therefore, these estimates should be considered as approximate and should be used only to provide a rough idea of future budget requirements.

Maintaining safe drinking water and environmentally sound sewer services is one of the most important responsibilities of any local government. As it becomes increasingly expensive to provide water and sewer services, local governments will need to balance their obligation to provide these fundamental services at affordable prices against the equally compelling need to manage their programs in a financially sustainable manner. While there are many

21. Water, Sewer and Stormwater Capital Needs 2030, N.C. Rural Center

financial and revenue strategies that are designed with local conditions and objectives in mind, managing water and sewer services inevitably involves asking customers to pay more for the services. Leaders should never forget that the failure to fund these services sufficiently would inevitably expose their communities to health and environmental hazards.

This section describes major financing alternatives available to local governments, including bonds, grants and loans, local rates, tap and impact fees, and special assessments.

*General Obligation Bonds.* Private market lenders, who are the primary source of water and sewer financing, account for 70% of the total financing for such projects. Because of low bond ratings, approximately 60% of the state’s local governments cannot qualify for most infrastructure lending programs. Cumberland County and the City of Fayetteville, however, have solid ratings. They also have considerably more conservative general-obligation debt ratios (ratios, that is, that are calculated by comparing the governmental entity’s total indebtedness with its appraised property valuation and its population) (**Table 7**).<sup>22</sup>

22. Analysis of Debt at 6-30-2007. Department of State Treasurer, Division of State and Local Government Finance.

*Revenue Bonds and Installment Financing.* Revenue bonds can be offered publicly with a typical 25-year term. The debt is secured by the net revenues of the project, and no voter approval is required. However, specific financial tests must be met and specific covenants are required. Alternatively, installment financing can be provided without voter approval with a typical 20-year term. The security for installment financing is a pledge to appropriate funding for debt service and a lien on the financed asset. However, there are challenges putting liens on utility assets.<sup>23</sup>

*Grants and Loans.* The federal role in financing water and wastewater projects has declined in recent years. The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) have significantly reduced the grant funds available for water and sewer improvements.<sup>24</sup> Nonetheless, several sources of potential financing for water and wastewater projects remain, particularly at the state level. The following agencies have grant and/or loan programs available. Specific program guidelines and contact information are provided in the Appendix.

23. Presentation entitled “Utility Financing Alternatives and The Financing Team” by Rebecca B. Joyner, Attorney with Parker Poe Adams & Bernstein, LLP. January 22, 2008.

24. N.C. Rural Economic Development Center, Water 2030 Executive Summary.

Table 7. Analysis of General Obligation Debt

	Ratings		Ratio of Total General Obligation Debt <sup>2</sup>	
	Moody's	S&P	Property Valuation (%)	Per Capita (\$)
Robeson County	A3	A-	0.050 (avg.)	20 (avg.)
Counties (100,000 - 249,999 pop.)			1.451 (avg.)	1,170 (avg.)
City of Lumberton	A3	A	0.053(avg.)	31 (avg.)
Municipalities (10,000 - 24,999 pop.)	n/a	n/a	0.346 (avg.)	276 (avg.)
Town of Maxton	n/a	n/a	n/a	n/a
Municipalities (2,500 - 4,999 pop.)	n/a	n/a	0.122(avg.)	123 (avg.)
Town of Pembroke	n/a	n/a	2.322 (avg.)	1.047 (avg.)
Municipalities (2,500 - 4,999 pop.)	n/a	n/a	0.122(avg.)	123( avg.)
Town of Red Springs	n/a	n/a	n/a	n/a
Municipalities (2,500 - 4,999 pop.)	n/a	n/a	0.122(avg.)	123 (avg.)
Town of Rowland	n/a	n/a	n/a	n/a
Municipalities (1,000 - 2,499 pop.)	n/a	n/a	0.169 (avg.)	170 (avg.)

- Appalachian Regional Commission
- Economic Development Administration, U.S. Department of Commerce
- U.S. Department of Agriculture
- N.C. Department of Environment and Natural Resources, Division of Water Quality
- N.C. Department of Environment and Natural Resources, Public Water Supply Section
- N.C. Department of Commerce, Division of Community Assistance
- N.C. Department of Commerce, Commerce Finance Center
- N.C. Clean Water Management Trust Fund
- N.C. Rural Economic Development Center

*Tap Fees, Impact Fees, and Special Assessments.*

In general, utilities charge three types of fees in North Carolina: tap fees, impact fees, and special assessments. Tap fees are designed to recover all or a portion of the cost (materials and labor) of water or sewer service line installation; impact fees are associated with system-capacity development. Because individual utilities have great flexibility in setting tap and impact fees, these fees can vary widely from one locale to another. Special assessments, on the other hand, are strictly defined in the NC General Statutes and may only be assessed by utilities (municipalities, counties, and authorities) under specific circumstances defined by the authorizing statute (§162A-216, §153A-185 and §162A-6, respectively)<sup>25</sup>. Refer to the Water, Wastewater, and Solid Waste appendix for a comparison of fees across the state.

*Impact of Military-Related Growth.* Because it will create minimal population growth in Robeson County, the expansion at Fort Bragg is expected to have little or no effect on county or municipal solid-waste programs.

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25. One-time Fees for Residential Water and Sewer Connections in North Carolina. A publication of the Environmental Finance Center at the University of North Carolina at Chapel Hill, Report by: Andrew Westbrook, westbrok@sog.unc.edu. 3/27/06.

### 3. Recommended Actions

#### **Important Action 1: Proactively plan water and sewer projects in conjunction with development activities.**

**Description:** Because water and sewer services are such crucial components of any community's utility infrastructure, it is important that planning for their construction and maintenance be done with the utmost care and professionalism. The City of Fayetteville/Cumberland County 2030 Vision Plan recommends several principles that planners in general, and those in the Fort Bragg region in particular, should observe. General principles include:

- The placement of water and sewer lines should determine where development is done, rather than the other way around.
- Development density should be determined by the availability of infrastructure.
- Generally, infrastructure with excess capacity should be utilized first before additional monies are spent to install and maintain new infrastructure elsewhere.
- Adequate utilities infrastructure (water supply, sewage collection and treatment capacity, stormwater management, etc.) must be in place before the new development it serves is occupied.

**Responsible Parties:** Municipal and county public works and planning directors, local elected officials, and planning commissions should work collaboratively to share best practices and implement new policies as necessary. The BRAC Regional Task Force could facilitate such regional collaboration.

#### **Important Action 2: Seek special funding from the North Carolina Legislature for capital improvements**

**Description:** As part of its effort to meet anticipated water and sewer capital needs, the county should give its support to State of North Carolina legislation that would address the utility needs of all the state's BRAC-impacted communities. This legislation would create a fund, to be administered by the N.C. Rural Economic Development Center, designed to mitigate the critical present and future water and sewer problems facing these communities. Federal and local matching funds should also be pursued.

**Responsible Parties:** Local and state elected officials and the BRAC Regional Task Force could work together to advocate the introduction and passage of new legislation.

**Important Action 3: Update financial plans for capital water and sewer improvements**

*Description:* The county and its municipalities should ensure that their estimates regarding both the quantity and the condition of their physical assets are up to date and accurate. It is important that local governments have reliable estimates as to how many and what kind of new water and wastewater facilities will be needed over the next five years. One set of estimates will target those new water and wastewater facilities that are used to expand capacity or address environmental health concerns. A separate set of estimates will be needed for those assets used for rehabilitation or for the replacement of existing infrastructure.

Careful consideration should be given to the identification of funding sources and to determining what percentage of total funding will come from each source (grants, debt, capital reserves, user rates, tap and impact fees, and special assessments). Local Capital Improvement Plans should be updated as necessary.

*Responsible Parties:* Municipal and county managers and local elected officials should work collaboratively to share best practices and identify funding sources as necessary.

**Important Action 4: Work collaboratively with regional suppliers of water and sewer services**

*Description:* Counties and local governments in the region should collaborate in the attempt to identify and better understand the resources available to them in the region. Together the region’s local governments should promote a regional approach to ensuring water quality (and thus the public health) and should support one another, where feasible, by buying and selling water and sewer services across municipal and county lines.

*Responsible Parties:* Municipal and county managers, local elected officials and other clean water stakeholders should work collaboratively to share best practices and implement new regional policies as necessary. The BRAC Regional Task Force could facilitate such regional collaboration.

## F. Information and Communication Technology

High-speed Internet access is available for purchase at 83.31% of the county’s households. This percentage is second lowest in the seven-county Fort Bragg region and is below the state average of 83.54%. For citizens living outside the cable service zone or beyond the geographic reach of DSL-support facilities, availability is less than 69%. Inadequate ICT infrastructure is an impediment to economic development on every level.

### 1. Current Conditions

Robeson County has the second lowest percentage of high-speed Internet access of the seven Tier I counties. High-speed Internet is available for purchase at 83.31 percent of households in the county, a rate that is slightly below the state average of 83.54 percent. Access in Robeson County is provided primarily by cable-based services and Digital Subscriber Line (DSL) services, as shown in **Table 8**. DSL, which has by far the larger footprint of the two services, transmits via telephone lines. Some communities have access to both types of service, some have only one of them, and some have neither.

Accessibility coverage estimates are self-reported by the provider companies. The ways that providers define service coverage are not wholly reliable, however, which means that their figures may not reflect the actual percentage of households that can obtain broadband access. For example, cable companies may designate a given zip code areas as “covered”, when in fact all locations having that zip code may not be served by the cable companies. Thus, the 83.31 percent composite figure undoubtedly overstates the level of access available in large portions of the county.

The estimated extent of Internet availability for Robeson County is shown in **Figure 7**. Each of the blue-ringed circles on the map represents a DSL service area called a wirecenter. Within each of these there is a central office that supports the wirecenter’s services. DSL service extends to areas within three miles of these central offices. As **Figure 8** indicates, the high-speed access rate estimates for Robeson County significantly overstate the actual level of access available in large parts of the county. Access reaches between 80 and 90% only in the eastern-most sliver of the county. Within the orange-shaded areas on the map, there are scattered locales of varying size where DSL access falls below the 50% level indicated by that color. In fact, areas that fall outside of the three-mile wirecenter circles and the cable service areas (indicated by hatching) are likely to have access rates that dip into the red—that is, the lowest access category. In the region surrounding Rowland, access to DSL-based service falls to between 0 and 50%. Failure to improve this ICT infrastructure will make Robeson County less attractive, thereby dampening growth and economic development.

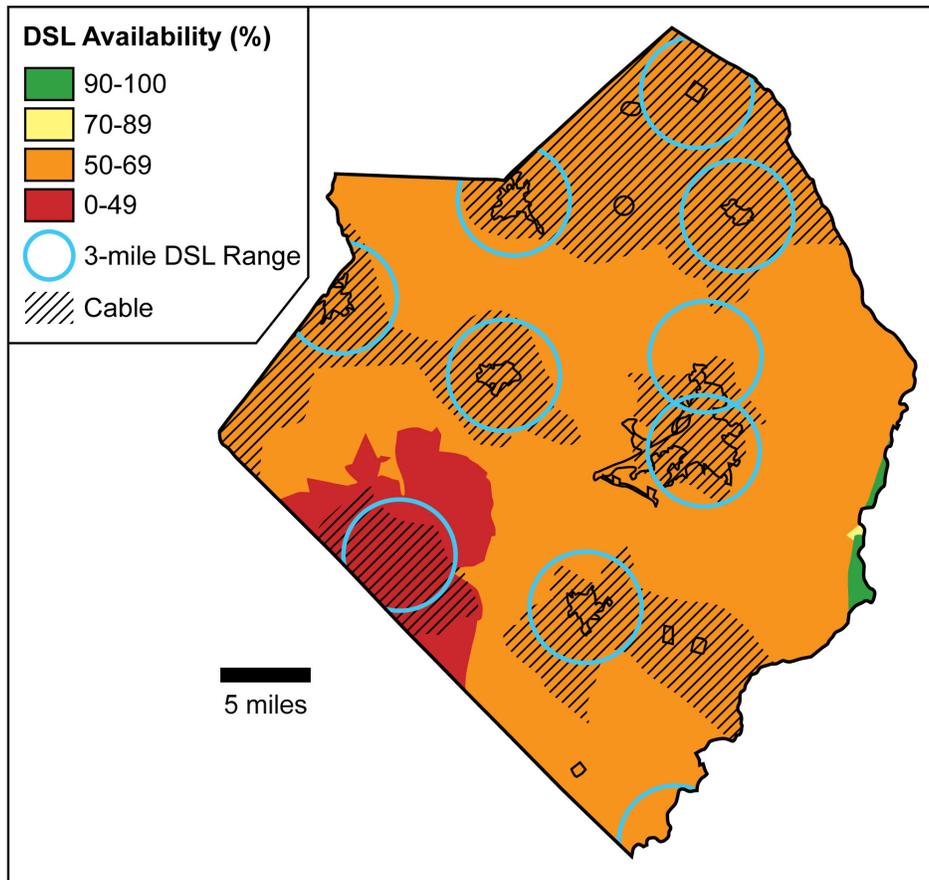
Another factor that compromises existing coverage estimates is the significant overlap between the areas served by cable-modem and those having DSL-based services. Removing the cable-served locations from the map shown in **Figure 8** would not significantly enlarge the portion of the county that does not have adequate service. This means that in Robeson County there may be significant overlap between areas served by cable-modem and by DSL-based services.

In addition to localized problems of inadequate access, there is the more generalized issue of inadequate speed and bandwidth. As noted above, broadband access in Robeson County is accomplished largely through cable modem and DSL-level access

Table 8. High-speed Internet access Providers Serving Robeson County

Cable	Carolina Cable Partners and Time Warner
Telcos	AT&T, Embarq, and Service Telephone Company
Satellite	Robeson County customers with a clear view of the southern sky have access to Direcway & Starband high-speed Internet Service.
Wireless	No wireless high-speed Internet access providers in Robeson have registered with the e-NC Authority.

Figure 8. Availability of DSL service and location of videoconferencing sites in Robeson County



speeds. The speeds and bandwidth supported by these types of technologies will be increasingly inadequate as a growing number of voice, data, and video applications use Internet Protocols (IP) for service delivery. Health, education, and government sectors are just beginning to tap the benefits of ICT-driven transformation, even as new ICT technologies—such as Radio Frequency Identification (RFID), wireless broadband, and voice recognition—begin to drive new applications (Atkinson, 2007). The result is that, as acceptable transmission speeds ratchet up, broadband standards are in flux<sup>26</sup>.

26. Acceptable transmission speeds are expected to rise from the current recommended minimum of 384 kbps to an anticipated minimum need at home and at businesses for 1.5 mbps symmetrical (up and down).

**a. Sector-Specific Connectivity Issues**

Efforts already underway in Robeson County highlight the need to make ICT and universal broadband access a cornerstone of the County’s economic and community development plans. These efforts are described below.

**Public Safety:** Robeson County is working to fully equip all its public safety and emergency-response personnel to be part of the Voice Interoperability Plan for Emergency Responders (VIPER) first-responder communication network. Partial implementation of this network, which is managed by the State Highway Patrol, has been funded through grants made to North Carolina by the U.S. Homeland Security Agency. A combination of local and federal funds is expected to cover the costs of fully implementing this program. At present, one VIPER transmission tower, sited at St. Pauls, is on the air and operational; a second tower sited at Proctorville is scheduled to be on the

air and operational in the fourth quarter of 2008. An additional 923 radios with a total cost of \$2,999,750 are needed to complete the Robeson VIPER network. **Table 9** show the number of radios required by specific sectors of Robeson County’s first providers.<sup>27</sup>

The Robeson County school system, like school systems nationwide, is facing difficult challenges arising from increased student populations, inadequate school infrastructure, increasing use of technology in the development and delivery of instructional content, and the need to support “anytime, anywhere” instruction through distance-learning programs. Robeson County already has a rapidly growing demand for broadband Internet access to support the educational and training needs of students in K-12, professional development, and training programs. Several existing statewide initiatives will significantly improve the network through which web-based resources are delivered to the county’s schools.<sup>28</sup> Access to these programs will require the availability of robust, high-speed connectivity and adequate videoconferencing facilities.

*K-12 Schools:* Connectivity to all public schools that are elements of the Robeson County Local Education

27. More information about the VIPER program is available at <http://www.nccrimecontrol.org/Index2.cfm?a=000001,001148>

28. Web-based resources available to the county’s schools include distance-learning programs that originate with the military and National Guard and are designed for their personnel; implementation of the Business Education Technology Alliance (BETA) study and state investment in regional education networks; implementation of the N.C. School Connectivity Initiative to support K-20 virtual-learning programs and the Initiative’s requirements for the state’s schools and connectivity to the home; the N.C. School of Science and Mathematics Distance-Learning courses; NC Wise; AMDG; OSU; **North Carolina Virtual Public Schools**; the Learn and Earn Initiative’s requirement for online college courses; **Two-plus-Two programs that integrate community college curricula with university degree programs**; UNC-Greensboro iSchool courses; the UNC Tomorrow program; and even the pioneering web academies.

Agency (LEA) is fully funded by a combination of federal e-Rate dollars and the N.C. School Connectivity Initiative. Windstream Communications provides fiber-based service to the LEA Central Office. A Wide-Area Network (WAN) connects all schools in the system to the LEA at speeds up to 100 Mbps. Through the LEA, all schools are linked to the North Carolina Research and Education Network (NCREN)-managed statewide education network. This network links schools to all of the state’s on-line education resources, to the public Internet, and to the higher level Internet-2 research network. At this point, the county’s primary responsibility for ensuring that schools have ongoing access to these resources consists of regular and timely filing of its annual e-Rate application.

*Hardware and Software:* Establishing connectivity is only one of the ICT issues facing public schools in Robeson County. There is a continual need for upgrading of the hardware and software that is required by the BETA, Earn and Learn, Learn NC, and Impact projects. Even End-of-the-Year testing requires up-to-date computers and software. Schools cannot just use donated or other outdated equipment and software but must make ICT equipment a fixture in their annual budgets.

*Impact of Connectivity on School Infrastructure:* The need for enhanced access affects other areas of county school planning. Changes in the construction codes for schools and other public-sector buildings are required to ensure that these codes support the wiring and HVAC needs for additional ICT equipment. During a recent BRAC ICT focus group meeting, for example, representatives of the region’s public schools cited the lack of sufficient electrical outlets in classrooms as a serious challenge to delivering web-assisted instruction.

Table 9. VIPER Implementation Status-Emergency Services Radio Requirement for Robeson County Education

Agency	Number of Radios
Law Enforcement (1 Per Sworn + 1 Per 1/3 Civilian not VIPER Compatible)	313
Fire Department not currently VIPER Compatible	548
Rescue Squad not currently VIPER Compatible	62
TOTAL Radios for Emergency Responders	923

*Impact of Connectivity on School Human-Resource Needs:* A shortage of skilled network-management technicians may emerge as one of the most critical impediments to meeting the demands of growth in Robeson County and the region. Additional ICT personnel at the professional and certificate level will be needed to support higher requirements for ICT infrastructure in schools and other public settings. Schools in the Fort Bragg area were surveyed regarding the numbers and types of ICT support personnel they employed. Results varied widely and did not allow for a qualitative statement of the actual levels of training or expertise achieved by the ICT technicians in the various counties. The data are none-the-less revealing and raise serious concerns. Robeson County LEA does not report having any certified network specialists on staff; that is, network services appear to be totally handled by contracted services. No other BRAC county follows this strategy in obtaining network support. It is clear that more and better certified technical support personnel are needed to manage the growing ICT needs of Robeson County schools.

Proximity to the tech-intensive RTP and growing Wilmington market creates special challenges for this region. Both instructors and graduates of computer and network training programs in the region are frequently drawn to more lucrative employment opportunities outside Robeson County.

*Higher Education/Adult Learning:* Robeson Community College in Lumberton provides degree and certification programs that prepare the skilled technicians and professionals needed to meet the growing demand for ICT services in the county and region. Training and educational opportunities are augmented by strong programs at UNC-Pembroke, Fayetteville Technical Community College, and at other colleges and universities in the region. The issue is one of throughput—more graduates are needed. Course offerings, degree programs, and the administrative contacts for each of the county’s higher education institutions are listed in Information and Communication Technology appendix. Similar data for other institutions in the region are also available in the appendix.

*Infrastructure Issues:* Videoconferencing facilities efficiently deliver distance-education programs to multiple students. Such facilities are particularly important in regions where they serve to support the increasing training needs of military and National Guard personnel. The National Guard supports two controlled-access networks (Guard Net II and Guard Net 132) with access at the National Guard Armory near St. Pauls. In addition, the National Guard is paying to build computer labs at nearby Fayetteville Technical Community College where Guard members can take continuing education courses. The Guard’s community college-based facilities are also available for use by civilians. There are nine additional N.C. Information Highway sites at Robeson Community College and area high schools, making central Robeson County relatively well supplied with videoconference centers. Students and the public in outlying eastern, southern, and western border areas of the county do not have ready access to facilities that support distance learning in a group setting.

*Government:* Movement of government services to an electronic platform (“e-government”) allows for cost-effective delivery, improved responsiveness, and increased transparency. E-government is proving to be particularly important in that it allows military personnel to access local government services while deployed. The military-related growth is expected to significantly impact the demand for government services.

Robeson County’s e-government website has been evaluated on the basis of content and usability against best practice models in Northwest Florida (<http://www.welcometonorthwestflorida.com/index1.html>) and Havelock, NC, (<http://www.cityofhavelock.com/>). Results of the analysis are summarized in **Table 10**. While Robeson County has made significant strides in developing a website that is useful to existing citizens and businesses, there are a number of e-government and information services the website does not furnish. Notably, the website is not linked to the BRAC Regional Task Force site and does not provide BRAC-related information.

While smaller towns and communities would benefit from having an attractive website populated with

Table 10. Robeson County Website Analysis

Website Address	www.co.robeson.nc.us
Preliminary Questions	Observations
Links to Local Government?	YES
Links to BRAC-RTF?	NO
General Items	Observations
Website Appearance	Professional appearance
Usability	Site is intuitive and easy to navigate
Site Structure	N/A
Audio/Visual Capabilities	NONE
External Web links	Links to local, state, and federal information
Contact Information	Contact information not included on every page
Employee Directory	Department-contacts page needs to be reorganized
Calendar	Outdated information on calendar page
Searchable Databases	Search Register of Deeds information and order copies of various documents
Forms, Applications, & Permits	North Carolina Property Tax Forms
Scheduling System	NONE
Transactional Capabilities	Online tax payment
BRAC Information	No BRAC Information
GIS	Live GIS Information
Newcomer's Guide	NONE
Listing of Property for Sale	NONE
Tax Information	Robeson County Taxes-view bills, property cards, and land information
Employment Opportunities	Employment opportunities online
Library Link	NONE
Website's Capacity to Facilitate Citizen Involvement	NONE
Feedback Form	NONE
Alert Mechanisms	NONE
Translation of Content	NONE
Intranet	NONE
Content Copyright	No copyright information
Frequency of Updates	Site includes updated date page and webmaster contact info

current content, most of them lack the means to develop and maintain such a site. In this regard, Robeson might consider following the example of Montgomery County. Montgomery provides and maintains a common template that its smaller municipalities can populate with current information. In so doing, Montgomery enhances its ICT services and supports balanced growth across the county.

*Impact of Connectivity on County-Government Human-Resource Needs:* A shortage of skilled network management technicians may emerge as one of the most critical impediments to meeting growth demands in Robeson County and the region. Additional ICT personnel at the professional and certificate level will be needed to support the growing number of web-based government services.

## 2. Future Needs

Information and communication technologies (ICT), especially those supporting high-speed broadband Internet uses, are becoming increasingly critical to local, state, and national economic and community development, with real and measurable impacts in employment, the number of businesses overall, and the number of businesses in ICT-intensive sectors. ICT will be particularly important in Robeson County as it adapts to changes caused by military-related growth. Many of the military personnel being transferred to Fort Bragg are technologically adept and will expect to have immediate and sophisticated access to ICT functions such as e-government, e-learning, e-health, and e-commerce. If they are to establish immediate professional and personal connections with the community, these personnel will need access to a high-speed, broadband Internet connection, both on- and off-base. As bandwidth needs increase for base operations, new applications will continue to be developed and will create further connectivity challenges for the region.

As part of its overall effort to support the incoming FORSCOM and US Army Reserve Command (USARC), and to sustain the incumbent military units as a vital economic engine for the region, Robeson County would greatly benefit from upgrading its telecommunications capacity. The county’s ability to attract and support a diverse and growing economy beyond the military will also be inextricably tied

to the quality, speed, and ubiquity of high-speed broadband Internet connectivity.

The level of broadband access that will be needed to accommodate the area’s military-related growth is suggested by the results of a November, 2007 survey conducted among FORSCOM personnel in the Atlanta region. Ninety-seven percent of the respondents have and use broadband access at home. This percentage is higher than the percentage of home Internet connections available in Robeson County. Sixty-one percent of the FORSCOM personnel use DSL to access the Internet, 36% use cable, and only 4% rely on dial-up modem connections. As shown in **Table 11**, the survey respondents and their families use the Internet at home for a wide range of tasks. It is highly likely, therefore, that the influx of FORSCOM personnel will increase the demand for high-quality broadband availability and web-based services in Robeson County.

## 3. Gaps

This assessment revealed several specific ICT-related gaps that need additional attention.

*Internet Access:* There are scattered locales of varying size – the region surrounding Rowland is an example - where DSL access falls below the 50%. Failure to improve this ICT infrastructure will make Robeson County less attractive, thereby dampening growth and economic development.

*Bandwidth:* Broadband access in Robeson County is accomplished largely through cable modem and DSL-level access speeds. The speeds and bandwidth supported by these types of technologies will be increasingly inadequate as a growing number of voice, data, and video applications use Internet Protocols (IP) for service delivery. This inadequate ability will hinder future economic development efforts.

*Public Safety:* At present, one VIPER transmission tower is operational; a second tower is scheduled to be operational soon. An additional 923 radios are needed to complete the Robeson VIPER network. This is a critical missing component in the regional emergency preparedness strategy.

Table 11. Routine uses of the Internet at home by FORSCOM personnel and their families

Check mail	98%
Educational (research, course, or Army on-line training)	52%
General Information searches (news, weather, sports)	86%
Work, professional information searches (government, business)	72%
Pay utility bills	74%
Pay taxes	33%
Search for medical information	73%
Do job-related tasks	43%
Search for jobs	47%
Commercial activities (shop, pay bills, etc.)	83%

*Government:* While smaller towns and communities would benefit from having an attractive website populated with current content, most of them lack the means to develop and maintain such a site. Montgomery County provides a model that Richmond might consider. Montgomery provides a common template that its smaller municipalities can populate with current information, and the county then maintains the site for the municipalities. This approach leverages ICT resources to better serve all of its citizens and to support balanced growth across the county.

## G. Recommended Actions

### **Important Action 1: Improve ICT infrastructure throughout the county to have high-speed access available at 95% of households.**

*Description:* Updated and new network technology needs to be implemented in underserved areas of the county to make high-speed access (defined as >200 kilobits per second) available to 95% of households.

*Responsible Parties:* A partnership of public (federal, state, and local) and private (corporate and foundation) organizations

### **Critical Action 2: Fully equip public safety and emergency personnel to participate in North Carolina's VIPER first-responder network.**

*Description:* The Voice Interoperability Plan for Emergency Responders (VIPER) System being implemented by the NC Highway Patrol will enable public safety officials at all levels to communicate directly with one another over a secure and reliable network without having to relay messages through a communications center. The value of this capability in times of emergency is becoming more important as the influx of military-related personnel into southeastern NC significantly raises the threat profile of the region. Robeson can reach compliance with the new VIPER standard with the purchase of 923 communications radios.

*Responsible Parties:* Local, state and federal government partnering to fully implement and equip the network. A request for federal support to equip the Fort Bragg region has been developed by the e-NC Authority for the BRAC Regional Task Force; prospects for federal funding are not certain at this time.

### **Important Action 3: Participate in formation of Regional K-20 Education Connectivity Task Force and Planning Group.**

*Description:* Strong potential exists to achieve greater returns on investment by utilizing regional strategies for developing and supporting the K-20 school connectivity infrastructure, by sponsoring professional development opportunities in instructional technology, and by increasing throughput of certified and trained network and communications specialists from higher-ed and technical training programs in the region.

*Responsible Parties:* Leaders from county government and education leaders from public and private schools K-16 in the Fort Bragg region, in collaboration with state BETA and e-learning commission.

**Important Action 4: Make connectivity a strategic focus for the county and a springboard for regional planning and economic and community development efforts.**

*Description:* Robeson County should partner with counties in the region to develop a regional ICT Council comprised of a Chief Information/Technology Officer from each county in the Fort Bragg region to guide development and use of connectivity. Outcomes will include collaborative learning, cost efficiencies realized through joint purchasing agreements and regional software licenses, and more competitive bids for federal and state program support.

*Responsible Parties:* CIOs/CTOs for each county and Fort Bragg

**Important Action 5: Champion effort to define and establish a BRAC Regional Health ICT Network**

*Description:* Robeson County should work with the N.C. Telemedicine Network to extend to the Fort Bragg region efforts funded by the Federal Communications Commission to extend connectivity and champion network usage by appropriate health and medical institutions, including the public health department and public and private health clinics.

*Responsible Parties:* County government and health leaders in collaboration with the N.C. Telemedicine Network, the e-NC Authority, and NCHICA

**Important Action 6: Establish Robeson County as a best-practice e-government model.**

*Description:* The county should re-engineer its website to best-practice status for delivering information and government services to private and corporate citizens and should extend to its municipalities the electronic platforms, hosting services, and training needed to make Robeson an e-county of e-communities.

*Responsible Parties:* Robeson County CIO/CTO, local government IT directors, the e-NC Authority, the N.C. League of Municipalities, and the Center for Public Technology at the UNC School of Government at UNC-CH.

## H. Health Care

The expansion of Fort Bragg will have little impact on health services in Robeson County. However, Robeson County leadership should take advantage of the region's growth to meet its substantial physician needs.

### 1. Current Conditions

Southeastern Regional Medical Center (SRMC), which is the primary health-care provider in Robeson County, operates 292 acute-care beds, thirty-three adult-psychiatric beds, twelve inpatient hospice beds, and 115 skilled nursing beds.

#### a. Health-Care Provider Supply

Robeson County has approximately seventy-eight full-time-equivalent health care professionals, including primary-care providers, medical and surgical specialists, and behavioral health providers. The majority of these physicians are on the staff at the Southeastern Regional Medical Center (SRMC). There are twenty-three dentists in Robeson County.

#### b. Acute-Care Hospital

SRMC is the sole provider of inpatient services in Robeson County. SRMC's 292 licensed acute-care beds operated at 58% occupancy in fiscal year 2007, and the medical center has capacity to increase volume across all of its inpatient service lines.

SRMC provides comprehensive cardiology and oncology services, cardiac rehabilitation, outpatient rehabilitation, dialysis, and a full range of diagnostic imaging services. In addition, SRMC has twelve licensed inpatient hospice beds at Southeastern Hospice House and 115 skilled-nursing beds at Woodhaven Nursing and Alzheimer's Care Center. Both of these facilities are hospital-based.

#### c. Outpatient Services

All of the county's diagnostic imaging and outpatient surgery services are provided at SRMC and in physician offices. Urgent care services are provided in the emergency department and by NextCare Urgent Care.

#### d. Home Health

Home-health services are provided in the home to individuals who are confined to the home. Such services are offered to individuals who do not need hospitalization but who need nursing services or therapy, medical supplies, or special outpatient services. Currently there is no need for additional home-health agencies in Robeson County, and the military expansion at Fort Bragg is expected to have a minimal impact on the short-term need for such services.

The following home-health agencies serve Robeson County:

- Health Keeperz
- Southeastern Home Health
- Liberty Home Care (2)
- Robeson County Home Health Agency

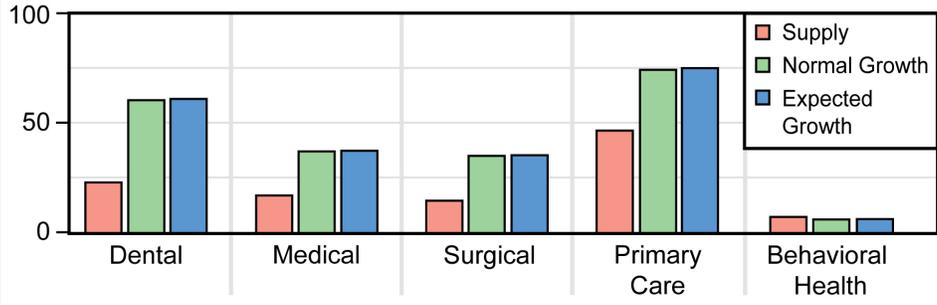
#### e. Behavioral Health

Robeson County behavioral-health services are managed by the Southeastern Regional Mental Health, Developmental Disabilities and Substance Abuse Services (Southeastern). Their Robeson County office is located on Country Club Road in Lumberton. Services provided include:

- Outpatient services
- Inpatient services
- Day treatment
- Case management
- Substance-abuse services
- Crisis intervention
- Respite care
- Supervised living
- Residential treatment
- Consultation and education
- Vocational services
- Assertive community treatment

SRMC has thirty-three licensed adult-inpatient psychiatric beds and operated at 53% occupancy in fiscal year 2007.

Figure 9. Projected number of health care professionals needed in Robeson County in 2013 compared to the estimated supply



## 2. Future Needs and Gaps

Although Robeson County has substantial physician needs at present, the supply of inpatient beds is adequate to support the current and future populations.

### a. Physician Needs

Robeson County has substantial needs for dentists, medical and surgical specialists, and primary-care providers (Figure 9). The county could support approximately thirty-eight dentists, twenty-eight medical specialists, twenty surgical specialists, and twenty-eight primary-care providers.

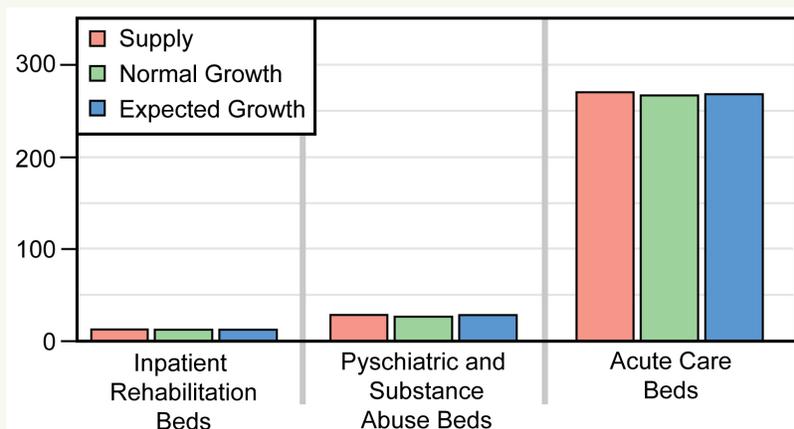
The expansion of Fort Bragg will have little effect on existing needs, but providers should use regional growth as leverage for physician recruitment. Robeson County has an adequate supply of behavioral-health providers.

### b. Inpatient Bed Need

Robeson County has a sufficient number of inpatient acute-care psychiatric, and substance-abuse beds to meet the existing and future needs of Robeson County residents (Figure 10).

The county needs about twelve inpatient-rehabilitation beds, which might be used to support a small, hospital-based, inpatient rehabilitation unit. Several units of similar size currently exist in North Carolina. In lieu of increasing its own supply of such beds, the county’s inpatient population can be effectively treated at regional referral centers in Moore, Cumberland, Wake, Orange, and Durham Counties. According to the 2008 State Medical Facilities Plan, each of these programs has capacity to accept additional patients.

Figure 10. Projected need for inpatient beds in Robeson County in 2013, compared to the estimated supply



## I. Recommended Action

### **Important Action I: Remain active in regional growth activities and support physician and dentist recruitment.**

*Description:* There are substantial physician shortages in Robeson County. Although Robeson County cannot directly link its physician needs to the expansion of Fort Bragg, regional growth may support physician recruitment. It is suggested that the healthcare leadership remain active in a regional health care providers working group

*Responsible Party:* Southeastern Regional Medical Center and Robeson County physician leadership should remain actively involved in recruitment efforts.

## J. Hospitality and Cultural Resources

*Although Robeson County has large numbers of lodging and food and beverage establishments, these facilities consist primarily of limited-service hotels and quick-service restaurants. Few of the county’s hotels provide meeting space. Two venues—the Southeastern North Carolina Agricultural Center and the Givens Performing Arts Center—offer space for larger gatherings. Robeson County has an adequate supply of parks and recreation programs and facilities as well as arts and cultural programming. Funding for culture and the arts continues to be a challenge.*

## 1. Current Conditions

### a. Lodging

Robeson County has a sizeable amount of lodging available, generally concentrated at Interstate-95 exits in Lumberton. Demand is created primarily by I-95 travelers and by visitors to Lumberton businesses and the hospital. As indicated in **Table 12**,<sup>29</sup> these accommodations are primarily branded economy and mid-scale motels.

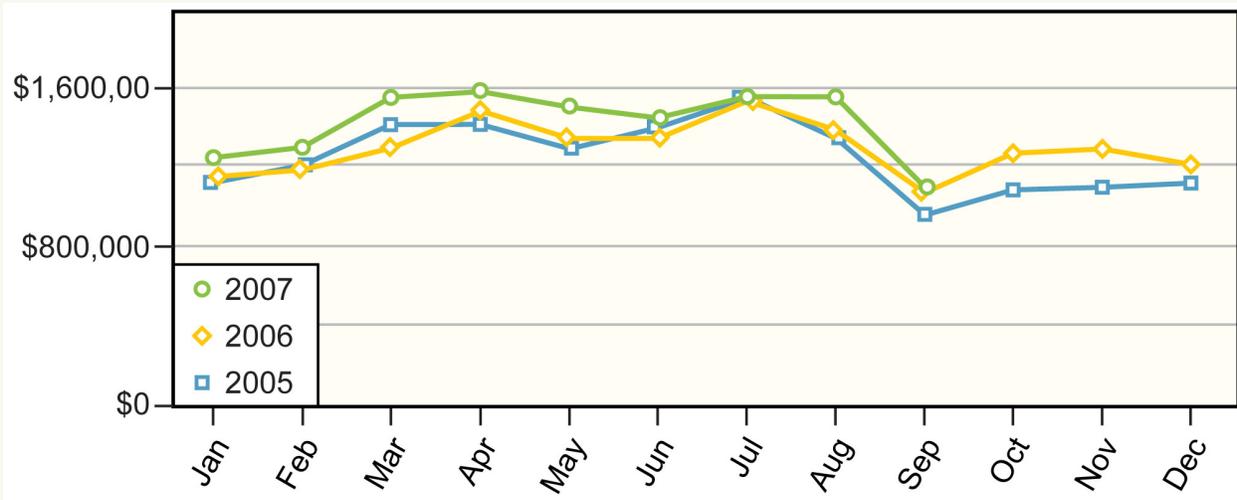
Due to the preponderance of highway travelers, lodging demand is highly seasonal and generally weekend-driven. There is some corporate transient and group demand, and—due to the county’s proximity to Fort Bragg—a limited amount of military demand. The lodging tax receipt figures

29. Source: Smith Travel Research; PKF Consulting

Table 12. Accommodations in Robeson County

Name of Establishment	City	Rooms
Redwood Motel	Lumberton	41
Holiday Inn Lumberton	Lumberton	107
Economy Inn	Lumberton	30
Comfort Suites Lumberton	Lumberton	93
Travelers Inn	Lumberton	51
Southern Inn	Lumberton	26
Best Western Inn Lumberton	Lumberton	62
Hampton Inn Lumberton I 95	Lumberton	68
Super 8 Lumberton	Lumberton	58
Quality Inn & Suites Lumberton	Lumberton	120
Howard Johnson Express Lumberton	Lumberton	63
Econo Lodge Lumberton	Lumberton	101
Budget Inn	Lumberton	25
Fairfield Inn Lumberton	Lumberton	104
Motel 6 Lumberton	Lumberton	83
Comfort Inn Lumberton	Lumberton	62
Days Inn Lumberton	Lumberton	108
Knights Inn Lumberton	Lumberton	90
Country Inn & Suites Lumberton	Lumberton	57
Americas Best Value Inn Lumberton	Lumberton	48
Village Inn Motel	Red Springs	20
Days Inn South Of The Border	Rowland	118
Rowland Motel	Rowland	25
Super 8 Rowland	Rowland	50
Days Inn St Pauls	St Pauls	50

Figure 11. Lodging Tax Receipts from Robeson County



shown in **Figure 11** indicate the seasonal nature of the county’s hotel business.

As this graph indicates, the lodging taxes collected in each month of 2007 represent increases over the comparable 2005 and 2006 monthly figures. These gains appear to be due primarily to new, quality supply additions in that period. Typically, demand is strongest between March and August when highway travel increases between destinations in the Northeast and Florida. The Lumberton Visitors Bureau has adopted the slogan “When You Stop Here, You’re Halfway There,” reflecting the fact that, for I-95 travelers, Lumberton is roughly halfway between New York and Miami.

Robeson County offers a variety of food and beverage establishments, ranging from fast food along major routes and interstate exits to quick, casual restaurants in its municipalities. Currently, the county offers a sufficient number of food and beverage establishments to meet the needs of its base population, students, and transient visitors.

**b. Meeting Space**

Meeting space in Lumberton is distributed throughout the county. The Holiday Inn Lumberton, which offers the greatest amount of meeting space that is co-located with accommodations, features a ballroom capable of hosting 225 attendees. To accommodate banquets and meetings, local restaurants offer private

areas suitable for hosting small groups or simply make special arrangements for reserving their entire facilities.

As indicated in **Table 13**,<sup>30</sup> Lumberton restaurants provide the vast majority of the county’s available meeting space.

30. Source: PKF Consulting

Table 13. Meeting space in Robeson County

Name of Establishment	City
Capacity: 1-49 Attendees	
Best Western	Lumberton
Lung Wah Chinese Restaurant	Lumberton
San Jose Restaurant	Lumberton
Village Station	Lumberton
Adelios	Lumberton
Britt Park	Lumberton
Chocolate Moon Restaurant	Lumberton
Comfort Suites	Lumberton
Jimmy’s Seafood Restaurant	Lumberton
Johnis Restaurant	Lumberton
Pinecrest Country Club	Lumberton
Black Water Grille	Lumberton
Holiday Inn	Lumberton
Southeastern North Carolina Agricultural Center	Lumberton
Givens Performing Arts Center	Pembroke

The Southeastern North Carolina Agricultural Center has the potential to host large meetings and conferences in the county. The center has 7,152 square feet of enclosed meeting space and is capable of hosting up to 1,000 guests. The Givens Performing Arts Center can also host large groups, with fixed seating for up to 1,600 attendees.

Historically, Robeson County has experienced little Fort Bragg-generated demand for meeting space. This is due primarily to the distance between Fort Bragg and Lumberton and to the type of facilities available in Robeson County.

- Parks and Recreation
- Robeson County's parks and recreational offerings include:
- Tournament field complexes: Pembroke, Lumberton
- Recreation centers: Bill Sapp, Maxton Recreation Centers
- Parks: Luther Britt, Lumber River State Park
- Senior activities: Pine Street, Barker Ten Mile Community Centers

Pembroke's recently completed \$4 million tournament-field project is designed to take advantage of the sports-travel market. The site is accessible via local roads but is not immediately accessible from I-95. Lumberton is currently seeking the funding to complete a separate, \$6 million tournament-field complex.

The Lumber River State park offers 7,936 acres of land, with 115 miles of natural and scenic waters. Luther Britt Park features 142 acres located in West Lumberton. Amenities include paddle boats, canoes, basketball courts, playgrounds, a beach house, a party room, two lakes, thirty-five acres of water, fishing, swimming, boating, nature trails, and picnic facilities.

Additional parks and recreational offerings include spectator sports at UNC-Pembroke and golf tournaments at area courses. It appears that Robeson County offerings currently satisfy the local demand for parks and recreation.

## **K. Culture and Arts**

Significant arts and cultural offerings in the county include:

- UNC-Pembroke: Theatre, arts, lectures, resource centers
- Museums: Robeson Planetarium, Border Belt Farmer's Museum
- Historic locales: Carolina Civic Center, Humphrey-Williams-Smith Plantation

The University of North Carolina-Pembroke's quality arts and cultural programs are open to county residents. The Givens Performing Arts Center hosts theatre productions, pageants, and well-known performers and speakers. The university is also home to the Museum of the Native American Resource Center, which features cultural exhibits and programs.

As is typical in many North Carolina counties, Robeson County hosts yearly festivals, including a county-sponsored fair held in October and the Highland Games, which take place in Red Springs. Robeson County festivals tend to be comparatively small, drawing visitors from the surrounding community and region.

### **1. Future Needs**

Robeson County offers solid hospitality and cultural opportunities for its residents; lodging, restaurants, meeting space, parks and recreational facilities, and cultural activities are generally only a short drive away. Robeson County's growing sports and recreation system features a few large park areas and several smaller venues located throughout the county. A substantial number of arts and cultural programs are also offered for county residents and non-residents, alike. Overall, the expected military expansion is not expected to significantly impact most of these resources.

## 2. Gaps

Though most demand for lodging from Fort Bragg will likely continue to be accommodated on the installation or in off-post hotels in Cumberland County, there will continue to be times when demand exceeds Cumberland County hotel capacity, and this demand may increase. Further, with the expansion of Interstate 74, there is a likelihood of increased travel between the Fort Bragg area and regional beaches.

While it is not expected that increased military-related demand will by itself warrant creation of a new hotel, this demand, in combination with increased traffic on I-74, may occasion additional hotel development near the proposed intersection between I-74 and I-95.

### 3. Recommended Actions

#### **Important Action 1: Plan for potential increase in demand.**

*Description:* While it is not expected that increased military-related demand will by itself warrant creation of a new hotel, Cumberland County turn-away demand and increased traffic on I-74 may call for an additional hotel development near the proposed intersection between I-74 and I-95. Community economic development officials should monitor hotel performance within the county and, if annual market area occupancy exceeds 75%, work to attract new supply.

*Responsible Party:* County economic development officials should continue to monitor local occupancy.

#### **Important Action 2: Solicit additional operational funds for county parks, recreation, and cultural resources organizations.**

*Description:* While the analysis of the current situation within county parks, recreation, and cultural resources organizations did not reveal any need for additional facilities, it was recognized that funding for existing operations continues to be a pressing problem that will be increased, however minimally, by the incoming population generated by expansion at Fort Bragg. Additional funding sources, available from the entities established to assist communities impacted by the military expansion, should be explored.

*Responsible Party:* Robeson County Parks and Recreation Department should continue to pursue all available funding.

## L. Appendix A - Residential Development

Current residential subdivision developments in Robeson County cited in interviews and/or observed during the windshield survey drive include the following:

- *Green Springs*—located on Green Springs Road along the northeastern border of the county. The “windshield survey” revealed no construction activity.
- *Shaw Mill*—a large modular home subdivision that includes the Corner Oaks and Brisson Sands subdivisions, located at the eastern border of Robeson County. Approximately 500 acres were said to be undeveloped in that subdivision. The “windshield survey” showed no construction activity in progress.
- *Upchurch Sands*—219+ lots located off Hypony Road in the far northern area of the county, accessed via Cumberland County.
- An unnamed subdivision (referred to as “James Britt”)—located on Angie Road off Parkton Tobemory Road east of I-95. The “windshield survey” found no evidence of construction activity.
- *Mgoo Estates*—66 lots, located in Rennert on SR 1006. The “windshield survey” found no construction activity at that subdivision.
- *Blue Farm*—located east of Parkton on Blue Road was said to have some lots approved but yet undeveloped. The “windshield survey” found no construction activity.
- *McIver Ridge*—located southwest of Parkton on McIver Road was also said to have some lots approved but yet undeveloped. The “windshield survey” showed no construction activity.
- *An unnamed subdivision (referred to as “David McMillan”)*—36 lots, located on Carolina Church Road south of Parkton. The “windshield survey” revealed no construction activity in progress.
- *An unnamed subdivision*—located on Stonewall Road at the northern tip of the county, was said to have undeveloped land, with the potential for up to 15 lots to be subdivided.
- *Autumn Chase*—infrastructure had been completed, but construction had not yet started on houses in this subdivision (to be developed by the Lumbee Tribe’s Lumbee Regional Development Association, Inc.). This was the subdivision most recently approved by the city. The “windshield survey” found approximately 14 houses occupied, three completed and ready for occupancy, and none under construction.
- *Hardin Estates*—110 units, to be divided approximately equally between single- and multi-family housing. This subdivision, to be developed through the Workforce Housing authority, is located on Hardin Street east of the city. The “windshield survey” revealed no sign of development.
- *Hermitage*—a mixed-use development planned to include approximately 40 multi-family housing units (targeted for elderly residents) plus light commercial and office uses; located to the west of Fayetteville Road.
- *Mayfair*—single-family development located off Roberts Street west of I-95. This subdivision was said to be 85-95 percent built out. The “windshield survey” found much of the subdivision developed and settled. Two houses were observed to be constructed and ready for occupancy, no houses were under construction, and there appeared to be approximately a dozen remaining undeveloped lots.
- *The Oaks*—approximately 85 percent built out; located off Londonderry Road. This subdivision contains more upscale housing, and the section with houses under construction is expected to be built out within five years. The “windshield survey” of “The Grande” area of this subdivision showed three houses occupied and four houses under construction. Another section of this subdivision, located on White Oak Drive, had six houses occupied, two completed and ready for occupancy, and four under construction.

Planned residential development in Lumberton includes:

The following residential development was identified in Lumberton:

- *Happy Valley Farm*—planned for mixed-use development, including office, retail, and residential uses; located to the east of I-95, on the west side of Fayetteville Road. The “windshield survey” revealed wooded land with no sign of development.
- *Linkhaw Farm*—a planned mixed use development with commercial development along Linkhaw Road, and residential development containing patio homes, townhouses, and single-family houses integrated with a golf course. This development was said to be targeted to officers who will be coming to Fort Bragg. The “windshield survey” found wooded land with no sign of development.
- *Weinstein Farm*—planned for a mixed-use development including single and multi-family residential, and commercial/office uses; located on Simmons Road south of Powers Road. Only one parcel was developed at the time of the interviews; it was occupied by a veterinary clinic. The “windshield survey” showed the land in agricultural cultivation, except for the parcel with the veterinary clinic.
- *Unnamed*—preliminary plans have been developed for a subdivision of single-family houses located off McPhail Road near its intersection with Seventh Street.

In addition to new residential development, some older mill houses were being redeveloped in eastern Lumberton.

Fairmont was characterized as starting to recover from a recent period of declining population and employment. Town officials had received a \$300,000 grant to expand existing industries, which had resulted in an additional 25 jobs at one business. In addition, the town is hoping to attract two new industries in 2008 that could have a combined additional employment of approximately 160 persons. The town has received a \$500,000 grant to develop a new community center, a grant through the Main Street program to improve the downtown area, and a \$400,000 state grant to enhance sewer service to existing industries. Fairmont was said to have three houses under construction at the time of the interviews; it has two neighborhoods with space

available to construct additional housing.

There were no subdivisions under construction or approved and pending construction in Pembroke. Local officials said multi-family student housing had been constructed in recent years, perhaps to the point that this market was overbuilt.

Red Springs has seen little growth in recent years, with the most recent major subdivision approval having been in the 1980s. Local officials said there is a lot of undeveloped land available in the town and supporting infrastructure is in place, but the town was only starting to actively market itself to potential new residents.

St. Pauls was characterized as not having grown in population during the past ten years. There have not been any new subdivisions approved recently, and the town has been deeply impacted by the closing of two major textile mills.

No new-mobile home parks have been approved recently; however, the mobile-home park with approximately 100 units located at NC 72 and Oak Grove Church Road was said to have many of its lots undeveloped.