

# Comprehensive Regional Growth Plan for the Fort Bragg Region

## Assessment and Recommendations



## Chapter 12 Harnett 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 12: Harnett 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 Harnett 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 discussions of the following topics:

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

Harnett County encompasses approximately 595 square miles. It includes five incorporated

Figure 1. Map of Harnett County

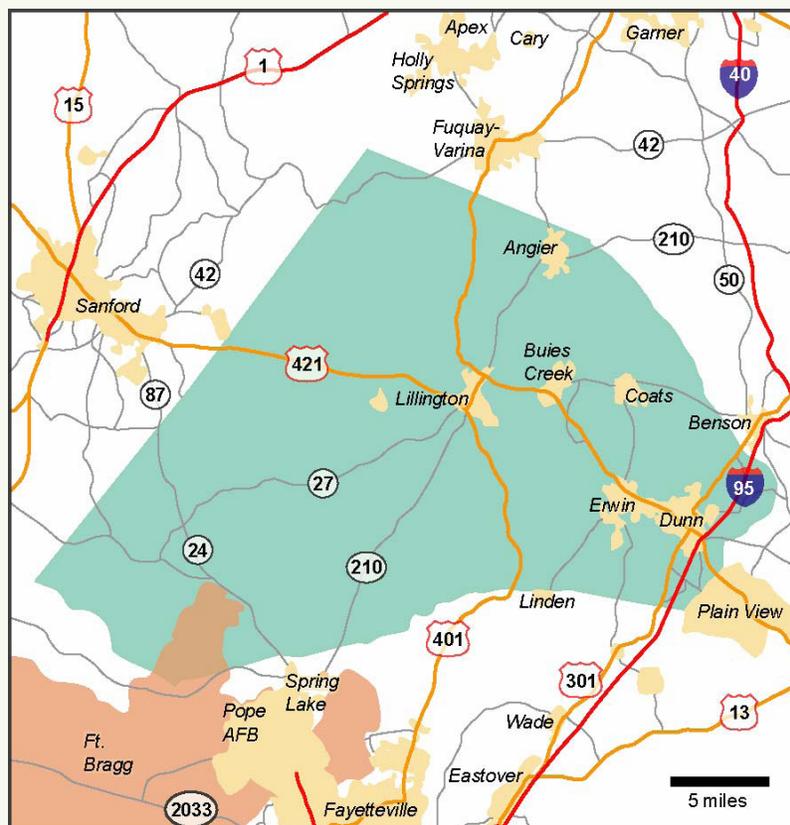


Table 1: Expected Number of Additional Military-Related Personnel<sup>1</sup>

	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

municipalities—the towns of Lillington, Angier, Coats, Dunn, and Erwin—and several small, unincorporated communities and villages (**Figure 1**). Harnett County’s mechanism for planning is the Harnett County Planning Board.

**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.

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

2. Estimates provided by Gary Knight, Picerne Housing

**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 Harnett County economy and lead to a more than \$118 million increase in Gross Regional Product in 2013. The Fort Bragg expansion will also account for an additional \$153 million in personal income, \$132 million in disposable income, \$91 million in output (sales), and \$178 million in demand in 2013. The total population for Harnett County in 2013 is expected to be 127,825, including 7,936 that are a result of military expansion.*

In order to understand how a community is going to change, it is necessary to identify where that community currently stands. When considering

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

Municipality	April 2000 Population	July 2006 Population	Change (number)	Change (%)
Angier (part)	3,419	4,026	607	17.75
Broadway (part)	0	0	1	n/a
Coats	1,845	2,033	188	10.19
Dunn	9,196	9,888	692	7.53
Erwin	4,537	4,812	275	6.06
Lillington	2,915	3,051	136	4.67
Unincorporated Area	69,150	79,903	10,753	15.55
Harnett County Total	91,062	103,714	12,652	13.89

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. Population

*As a result of military growth at Fort Bragg, the total population for Harnett County in 2013 is expected to be 127,825, an increase of 7,936.*

The population of Harnett County increased 13.89% between 2000 and 2006. According to the North Carolina State Data Center (SDC) estimates, county population increased from 91,062 in April 2000 to 103,714 in July 2006, the most recent date for which data are available. That 13.89% population increase was greater than the 10.1% average statewide increase for the period. As shown in **Table 2**, municipalities in Harnett County grew in population between April 2000 and July 2006.

As of July 2006, Dunn had the 74th largest population, Erwin the 126th largest population, Angier the 150th largest population, and Lillington the 180th largest population of the 541 North Carolina municipalities. The majority of the population growth has occurred in the unincorporated portion of Harnett County.

At the completion of the expansions at Fort Bragg and Pope Air Force Base in 2013, the total population in Harnett County is expected to

increase from 119,130 to 127,825, these figures reflect an increase of 8,695 (includes normal and expected growth).

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

*In 2013, the Fort Bragg expansion is expected to account for an additional \$153 million in personal income, \$132 million in disposable income, \$118 million in GRP, \$91 million in output (sales), and \$178 million in demand.*

As a result of military growth, personal income<sup>3</sup> in Harnett County will increase in 2013 to roughly \$4.13 billion (or by \$153 million). At the completion of the Fort Bragg expansion in 2013, disposable income<sup>4</sup> in Harnett County will have grown by \$132 million to \$3.62 billion. Similar to the trends seen in other variables, income changes in the regional

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

	2013 (millions)
Personal Income	+ \$153
Disposable Income	+ \$132
Gross Regional Product	+ \$118
Total Sales (output)	+ \$91
Total Demand	+ \$178

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 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 Harnett County economy and lead to a GRP increase of \$118 million in 2013. Total sales to local businesses (output) is affected by changes in industry demand, the local region’s share of each market, and international exports from the local region. The increase in 2013 is estimated to be \$83 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 Harnett County is expected to grow by about \$178 million in 2013 (from about \$5.42 billion to \$5.60 billion) (Table 3).

**C. K-12 Education**

*Between the 2008-2009 and 2013-2014 school years, Harnett County Schools—whose 2007-08 K-12 enrollment is 18,408—will experience an estimated military-related growth of 1,325 students. The expected impact will be heaviest in the Overhills and Western Harnett areas, where the current elementary school student population exceeds the schools’ building-occupancy capacity. In addition to the planned Overhills Elementary school, an additional*

*elementary school and an additional middle school are needed as soon as possible. A new high school is expected to be needed in 2012. Approximately \$60.5 million in operating funds over the next six years will be needed in Harnett County in order to maintain the current level of education services for the additional military-related growth. Inasmuch as \$23.3 million will be needed for new school construction, securing funding for capital improvements has become a major priority.*

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

**1. Current Conditions**

**a. Background**

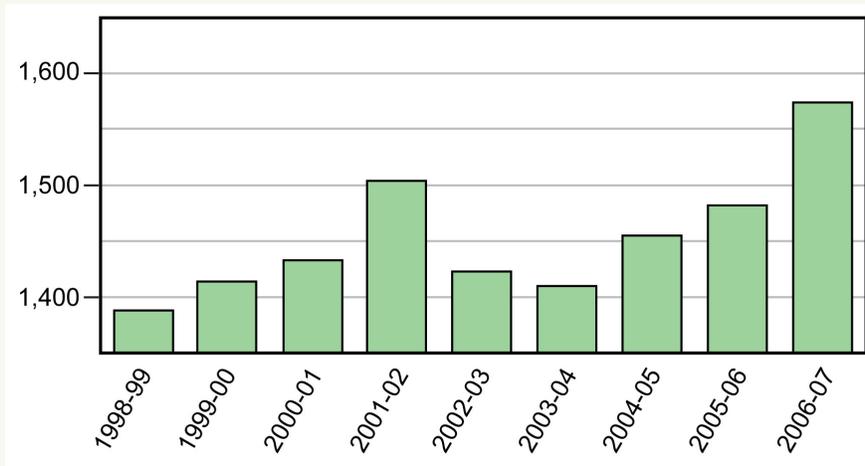
Harnett County Schools, with a 2007-08 K-12 enrollment of 18,408<sup>5</sup>, make up the twenty-second largest school district in North Carolina. Other characteristics of the district include:

- Fifteen elementary schools, five middle schools, four high schools, and an alternative school
- Two thousand one hundred and five employees, including 74 administrators, 1,127 teachers, and 364 teacher assistants
- Elementary school students account for 48.1% of the student population, with middle school and high school students making up 23.0% and 28.1%, respectively
- Approximately 12% of students in 2007 were connected to the military which resulted in an average Federal Impact Aid per student of \$75.206

5. North Carolina Department of Public Instruction, 2007-2008 Average Daily Membership (ADM), Month-Two Report.

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

Figure 2. The number of live births to residents of Harnett County per school year.



**b. Facility Needs**

Estimates for the 2008-2009 school year suggest that, system-wide, the existing permanent building capacity is approximately 17,556 students, which means there is a current capacity gap of about 1,629 students. Elementary schools in the Western Harnett and Overhills areas account for 954 of this gap. Moreover, areas expected to receive significant military-related impact are also the areas that are currently experiencing a much higher level of school overcrowding. Thus, even with the new 750-student Overhills Elementary school opening in 2009, there will not be sufficient capacity to address

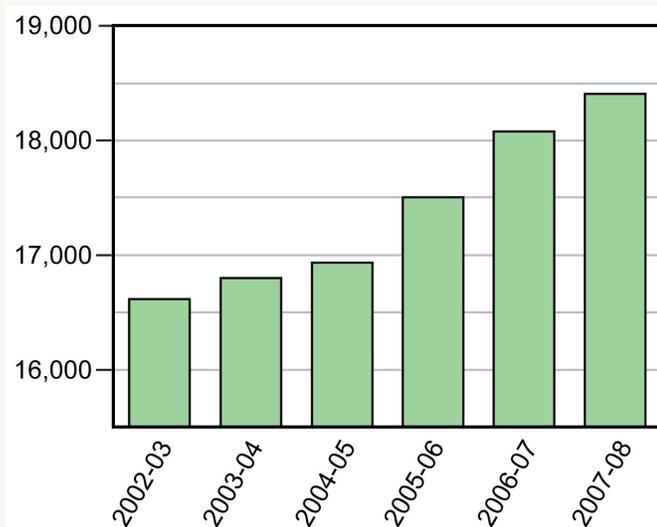
overcrowding in these areas. Middle schools in the county have a current capacity gap of 485 students, while high schools have a current capacity gap of 189 students.

**c. Historical Growth**

The number of live births among residents has been increasing in Harnett County since 1998. Especially large increases have been observed since 2003 (Figure 2).<sup>7</sup> The six-year trend in Average Daily

7. North Carolina Department of Health and Human Services

Figure 3. Average Daily Membership (ADM) for Month 2 in Harnett County schools.



Membership<sup>8</sup> for Month 2 shows that school attendance has been increasing by more than 350 students per year (Figure 3).

## 2. Future Needs

### a. Geographic Distribution of Growth

Harnett County schools experienced a five-year (2002-03 to 2007-08) average annual growth rate of 2.07%, with yearly student population growth rates ranging from 0.8% to 3.3% in consecutive years. The projected normal growth rate for Harnett County schools is expected to average 2.27% per year. Military-related growth is expected to add 1,325 school-aged children to Harnett County schools between the 2008-09 and 2013-14 school years, resulting in a net system-wide increase of 3,800 school-aged children. The cause of this considerable system-wide increase will be military-related growth

plus spill-over growth from neighboring Wake and Johnston Counties. Military-related growth will include the Linden Oaks military housing development, which will offer 1,500 military families an alternative to traditional on-post housing. All high school-aged children in the Linden Oaks development will be eligible to attend the Overhills High School in Harnett County. By 2013, all this projected growth will increase the current system-wide capacity gap by 4,600 students.

Figure 4 shows the geographic distribution of the potential growth in Harnett County's K-12 student population. This map is derived from GIS analyses of where current students live, where military personnel live, and where land parcels available for development are located, as well as from 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

8. 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.

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

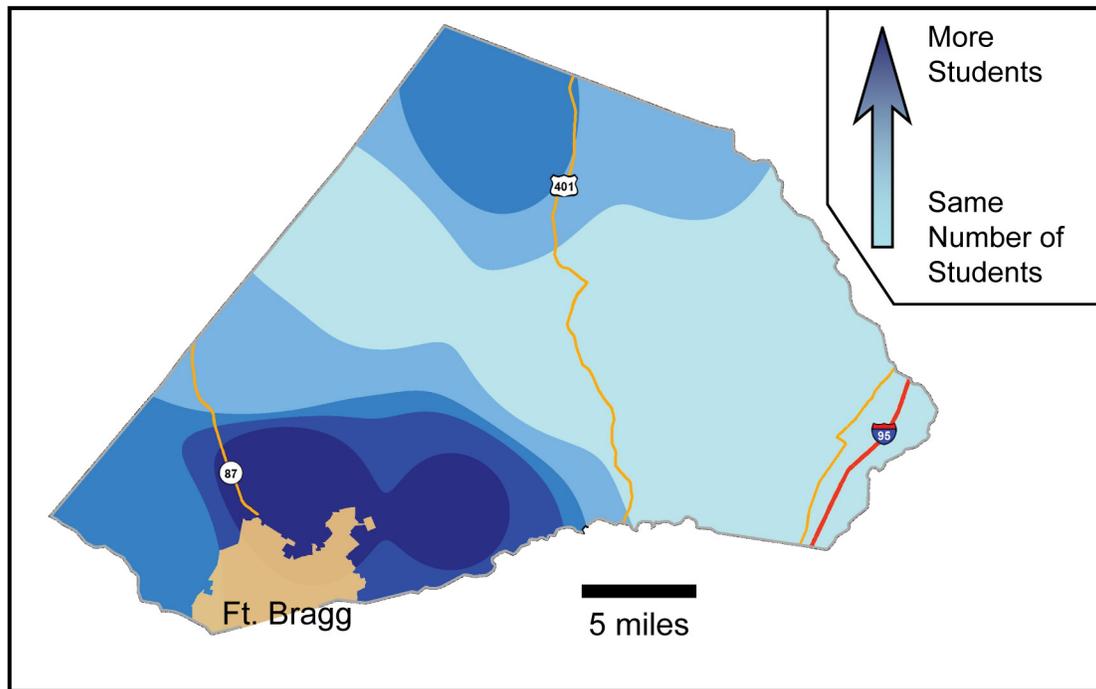


Figure 5. Projected Growth in Student Enrollment by School Level (2008-09 to 2013-14)

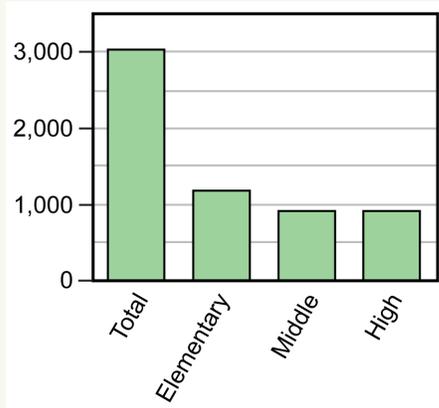
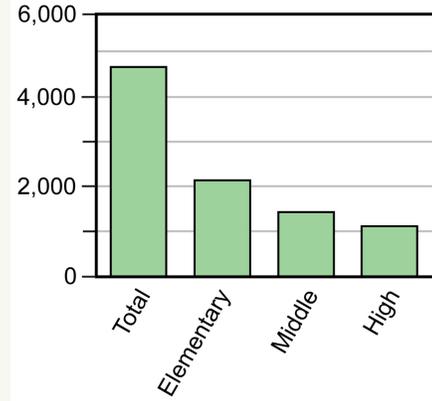


Figure 6. Projected Capacity Gap in Permanent Facilities by School Level (# of students)



strong residential growth trends, indicative of a future increase in the number of school-aged children in the Western Harnett and Overhills high school attendance area, especially the area bisected by Hwy 210, Hwy 27, and Hwy 87. This area offers direct access to Fort Bragg via Hwy 210 and Hwy 24/87, and is favored by families with school-age children due to the quality of its schools.

**b. Projected Growth and Facilities Capacity**

*System-Wide Impact*

Enrollment projections were developed for all schools in the district<sup>9</sup>. Projections were based on historical school enrollment records as well as available data about the number of newborn babies in each school district. The analysis determined cohort survival ratios, defined as 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, in turn, were used to develop a system-wide, enrollment forecast, which was then compared with estimates of school capacity in order to project capacity shortfalls in 2013. *The total anticipated growth<sup>10</sup> in school enrollments between the 2008-09 and 2013-14 school years is approximately 3,007 students (includes 1,325 students resulting from military-related growth).* **Figure 5** details the projected school enrollments.

9. At the time of this analysis, actual 20 day ADM numbers were not available. Estimates were used based on available data.

10. Includes normal growth plus the expected military-related growth.

Projections for the 2013-2014 school year suggest that, system-wide, the permanent facilities capacity gap will be 4,635 students (**Figure 6**).

This out-of-capacity analysis suggests that even after the Overhills Elementary school opens in 2009, an additional elementary school is needed as soon as possible. In addition, one middle school is needed immediately and one high school will be needed in 2012.

*Military-Impacted School Clusters*

In order to assess the impact of pending school construction projects on capacity gaps and to provide guidance on the siting of future schools, military-impacted school clusters were identified. Clusters include the individual school attendance areas - at the elementary, middle and high school levels - expected to receive the largest military impact. Once specific clusters were identified, the out-of-capacity analysis was redone at the cluster levels to illustrate year-by-year capacity gaps (Appendix A).

The schools included in the elementary cluster are Anderson Creek/South Harnett Primary, Benhaven Elementary, Highland Elementary, Johnsonville Elementary, and Overhills Elementary (to be completed in 2009). An updated out-of-capacity analysis suggests that all schools are either at or above capacity for the 2008-09 school year; Highland Elementary and Benhaven Elementary are operating well above capacity at 166 percent and 120 percent,

respectively. When Overhills Elementary opens in August 2009, the Highland Elementary capacity utilization rate will likely be reduced to 135 percent and Benhaven Elementary will fall to ninety-two percent. Johnsonville Elementary is expected to experience further capacity demands - after Overhills Elementary is opened – with an increased utilization rate of 136 percent. Even with the new Overhills Elementary, projections for the 2013-14 school year reveal that several schools in the elementary cluster will be operating well above capacity; Johnsonville Elementary and Highland Elementary will be operating at 157 percent and 156 percent, respectively. An additional elementary school with a capacity of 750 students will likely be needed as soon as possible.

The schools included in the middle school cluster are Harnett Central Middle, Overhills Middle, and West Harnett Middle. An updated out-of-capacity

analysis suggests that all schools are either at or above capacity for the 2008-09 school year; Overhills Middle and Harnett Central middle are operating above capacity at 131 percent and 127 percent, respectively. Projections for the 2011-12 school year reveal that an additional middle school with a capacity of 1,000 students is needed as soon as possible.

The schools included in the high school cluster are Harnett Central High, Overhills High, and West Harnett High. The out-of-capacity analysis suggests that only Harnett Central is operating above capacity for the 2008-09 school year with a utilization rate of 150 percent. Projections for the 2013-14 school year reveal that capacity demands will increase with utilization rates rising to 166 percent for Harnett Central and 129 percent for Overhills High. An additional high school with a capacity of 1,500 students will likely be needed in 2012.

Figure 7. Optimal Location for New Elementary School

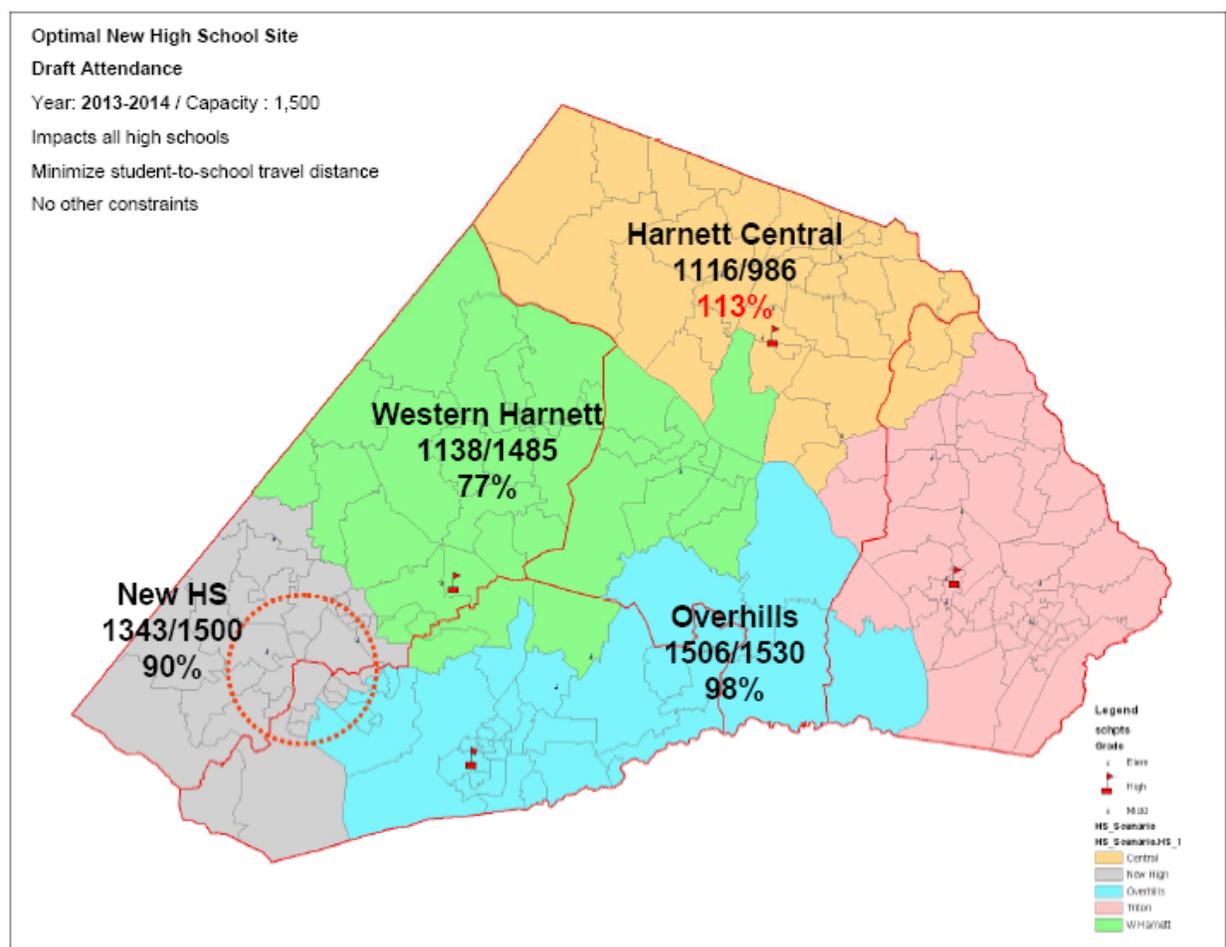




Figure 10. Additional School Construction Cost associated with Military-Related Growth (\$ in millions)

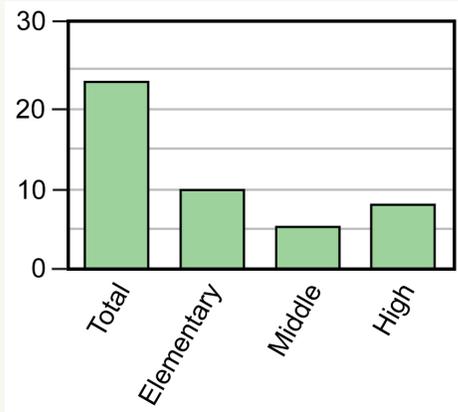
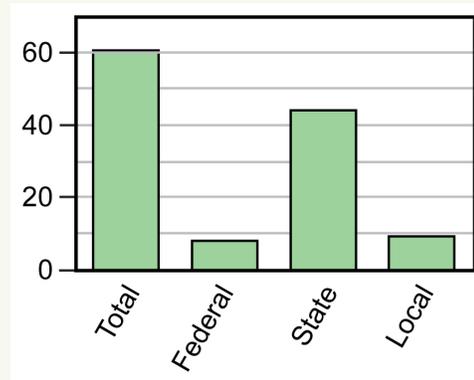


Figure 11. Additional Administrative and Operations Cost associated with Military-Related Growth (\$ in millions)



The optimal areas for the construction of new elementary, middle, and high schools are based on minimizing travel distances and school capacity constraints. (Figures 7-9).

### 3. Gaps

As mentioned, approximately 1,325 additional students will enroll in Harnett County schools as a result of military-related growth.<sup>11</sup> The new Overhills Elementary school – with a capacity of 750 students - is already fully funded. In order to accommodate the remaining 575 military-connected students, there is an estimated \$23.3 million in unfunded construction costs needed to build new schools<sup>12</sup> (Figure 10).

In addition to the cost of constructing new schools, there are additional administrative and operations costs, such as salaries, instructional supplies, utilities, maintenance, transportation, etc. The

Harnett 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 Harnett County, with the federal government providing the least. Seventy-two percent of school funding comes from state sources, 13% from federal sources, and 15% from local sources.<sup>13</sup> The total per-pupil expenditure in Harnett County is \$7,695 annually compared to an average of \$7,800 for the Tier I counties. Based on the county-specific average costs, in order to maintain the same level of educational services for six years<sup>14</sup>, approximately \$60.5 million will be necessary to educate the 1,325 additional military-related students (Figure 11).

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

12. Using the county-wide out-of-capacity analysis and 2008-2009 enrollment projections, the proportion of students attending elementary schools, middle schools, and high schools was determined. This distribution was used to project which school level military –connected students would attend. The average cost per student to construct a school was obtained from Smith Sinnott Architects and assumes a 5-year construction inflation cost and a \$20K per acre land cost. The estimate is \$35,784 for an elementary school, \$40,388 for a middle school and \$48,429 for a high school.

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

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

#### 4. Recommended Actions

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

**Description:** Current funding sources will not provide sufficient funding to fill the capital and 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; and (2) traditional funding sources, such as general obligation bonds and raising property or sales taxes, which would need a focused effort to build public support since they require voter approval. 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.

Because military-related school-aged children are a significant part of the Harnett County Schools, the school system should continue to actively engage the Department of Public Instruction in enrollment forecasting. Even though DPI forecasting is conducted many months prior to the school opening when the exact number of military-related students is still unknown, the county should be able to provide relevant data that will support a joint effort to plan funding for new teachers and staff.

**Responsible Parties:** The exploratory committee should be formed by the BRAC Regional Task Force in partnership with Harnett County Schools and Harnett County government.

##### **Critical Action 2: Identify short-term strategies for accommodating expected enrollment increases in the next few years.**

**Description:** Harnett County is expecting significant increases in student numbers over the next few years. The County should consider convening an ad hoc group of policy makers and school staff to consider available short-term strategies for dealing with these increases, such as:

- Mobile classroom or modular classroom facilities
- Temporary capping of enrollment at overcrowded schools plus temporary busing of students to under-utilized schools

- Alternative-calendar schools
- Rental of off-site, swing-space buildings to accommodate students over the short term

**Responsible Parties:** The BRAC Regional Task Force will work with Harnett County Schools and the Harnett County Commission to identify solutions.

**Critical Action 3: Update out-of-capacity analysis using actual 2008-09 enrollment numbers**

**Description:** The military-impacted cluster analysis in this assessment was based on estimated enrollments for the 2008-09 school year. The actual enrollment numbers – based on the 20-day ADM - are now available. This update will verify the need for the additional elementary, middle and high schools recommended in this assessment. An update may also impact the optimal location of each of the schools recommended.

**Responsible Parties:** The BRAC Regional Task Force will work with Harnett County Schools to ensure that the most up-to-date information is used in any future assessments.

**Important Action 4: Promote local government and school system collaboration in locating schools, houses, and neighborhoods**

**Description:** Because the projected school capacity gap in Harnett County is not evenly distributed across the county, efficient use of limited capital improvement funds will require strategic distribution of new facilities. Harnett County Schools and local governments should consider adopting Smart Growth principles whereby school facility planning and local government planning efforts are integrated so as to reach multiple community goals— educational, economic, social, and fiscal. Collaborative decisions regarding the location of schools, houses, and neighborhoods will promote policies that are consistent across governmental and functional boundaries. The availability and price of land is obviously an important factor in siting schools. GIS-driven technology – such as the technology used to determine optimal school site in this assessment - is available that will assist in correlating school decision-making with projected land use trends.

## D. Housing

The Harnett County for-sale housing market continues to outperform the national and regional housing markets. The area’s housing, which is substantially more affordable than is the case in most areas of the United States, has a history of housing price appreciation. Although the local market has begun to slow in the last 18 months, negative impacts to the local economy are being reduced substantially by military spending at Fort Bragg. Harnett 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 \$275,000 plus.

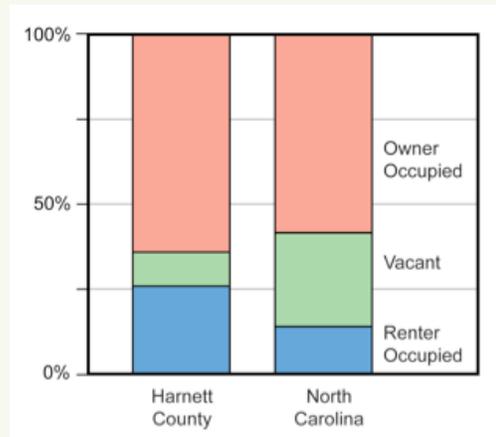
### 1. Current Conditions

#### a. Housing Characteristics

The number of housing units in Harnett County in 2007 is estimated to be 44,793,<sup>15</sup> which is up from 38,605 units in 2000, indicating an average annual growth rate of 1.97% for the last seven years. Approximately 4,956 (11.1%) of these housing units are vacant compared to a statewide vacancy rate of 14.2%. Approximately 70.9% of the units in Harnett County are owner-occupied, while approximately

15. Claritas Research

Figure 12. Housing occupancy by type in Harnett County in 2007, compared with the statewide average

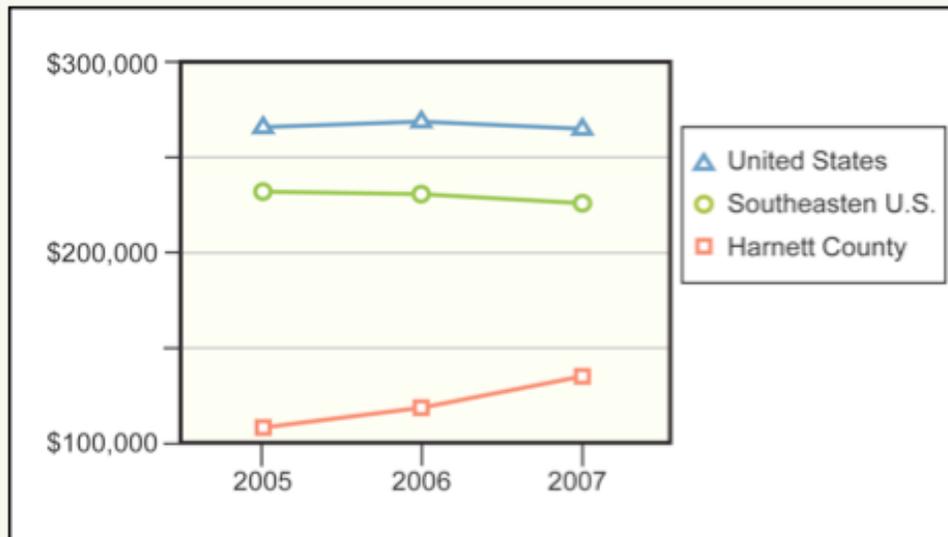


29.1% are renter occupied (**Figure 12**). The statewide rates for owner-occupied units and renter-occupied units are 59.6% and 27.9%, respectively.

#### b. For-Sale Housing

The average price for an existing single-family home in Harnett County has increased from \$91,910 in 2002 to \$118,459 in 2006. Housing continues to appreciate in Harnett County, with the average price for an existing single-family home increasing to \$135,112 in 2007. Home-sale prices have continued to appreciate despite a decline in prices nationally and in the South (**Figure 13**).

Figure 13. Average sales price for existing single-family homes in Harnett County in 2007, compared with averages for the state as a whole and with the southeastern United States



Between 2002 and 2006, total existing home sales increased locally every year except for 2005. The local market for existing homes has slowed, however; the total number of existing single-family home sales declined in 2007. The number of days on the market increased to 64 in 2006 and has remained at 64 days through 2007. Overall, there is a nearly 6.5-month inventory of existing homes on the market, compared to a national inventory of approximately 9.0 months. As of October 2007, the inventory of existing available houses included 224 three-bedrooms, with an average price of \$148,330, and 101 four-bedroom units, with an average price of \$236,695.

The number of Harnett County’s new, single-family units that are placed on the market and sold in a given year has grown significantly—from 112 units annually in 2002 to 410 units annually in 2006. Likewise, the average price for a new house that closed has increased from \$136,945 in 2002 to \$191,799 in 2006 (**Figure 14**). New housing in Harnett County continues to appreciate, with the average price for a new home increasing to \$207,448 in 2007.

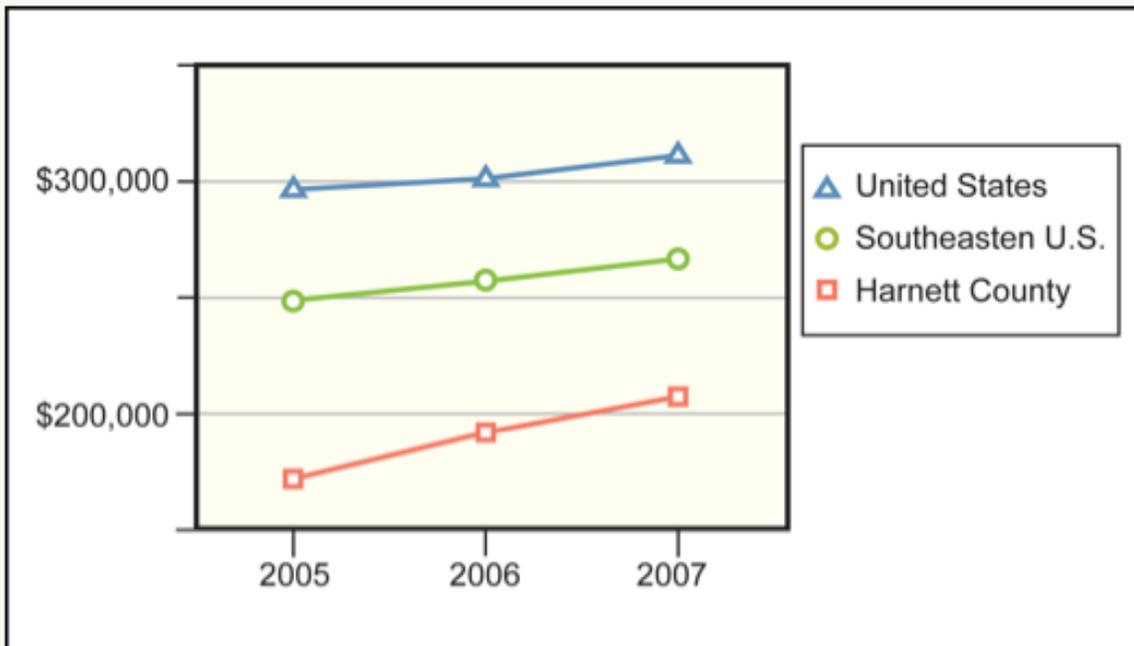
The demand for new single-family homes has also exceeded national and regional demand. From 2002

through 2006, total new home sales in the county steadily increased. As with existing homes, local new-home market activity has slowed, with the total number of new single-family home sales declining to 324 in 2007. The number of days on the market increased to 131 in 2006 and has continued to increase through 2007 (to 167), providing further evidence of a marketing slowdown. Overall there is a 10.2-month inventory of new homes on the market compared to a national inventory of approximately 9.8 months. As of October 2007, the available inventory of new houses included 348 three-bedrooms, with an average price of \$208,393, and 110 four-bedroom units, with an average price of \$266,602.

Factors considered when determining whether the typical homebuyer can qualify for a mortgage on a typical home include:

- The median price for a typical new three-bedroom, two-bathroom home that contains approximately 1,400 square feet is \$173,900.
- A minimum down payment of 5% of the purchase price is required.
- Mortgage principal and interest cannot exceed

Figure 14. Average sales price for new single-family homes in Harnett County in 2007, compared with averages for the state as a whole and with the southeastern United States



28% of the median monthly income.

- The prevailing mortgage interest rate is assumed to be 6.5%.

An affordability analysis indicates whether a typical homebuyer could qualify for a mortgage loan on a typical new home in Harnett County.<sup>16</sup> An index value of 100 means that a 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 120.0 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.

Single active-duty military personnel have affordability indices ranging from 70 for a junior enlisted (E2) to 245 for a company grade officer (O5). This suggests that the typical three-bedroom, two-bathroom new home would not be affordable for many junior enlisted personnel. These affordability indices are based on single-earner families. Many military families have two or more incomes, however, which would make selected homes affordable to the junior enlisted personnel.

In terms of housing production, requests for single-family housing permits rose consistently between 2003 and 2006, with the greatest number of permits (1,383) issued in 2006. Beginning in 2007, the number of permits dropped substantially to 1,074. So far in 2008 (January and February), 147 permits have been issued, down by 47% compared with the same period in 2006. All of the new single-family homes are being constructed in the unincorporated portions of the county. Permitting activity will likely continue to decline as the existing inventory of new homes is reduced.

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

## Rental Housing

The price of rental housing typically averages \$423 a month for one-bedroom, one-bath units to \$850 a month for three-bedroom, two-bath units. In terms of multi-family housing production, the number of permits issued has risen from 10 in 2005 to 50 in 2007. Fifty permits were issued in November 2007.

Rental affordability depends on both affordable monthly rent rates and the availability of units having such rates. 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 for Military Families in Harnett County

The current Fair Market Rents in Harnett County are affordable to all pay grades except an E-2 supporting a family of three or more.<sup>17</sup>

The most visible residential growth in Harnett County is taking place as a result of its close proximity to Fort Bragg and Pope Air Force Base. Such residential development is occurring primarily in the southwestern area of the county bounded by NC 210, NC 27, and NC 87. Other residential growth, which is taking place in the northern area of the county, is attributable to growth in Wake County. The consensus of those interviewed was that the highest level of growth in Harnett County is, and will continue to be, in the southwestern area of the county close to Spout Springs. Additional growth in this area will be generated by Linden Oaks, an

17. Annual Income for each pay grade was calculated utilizing the OSD Military Compensation Calendar at <http://www.dod.mil/cgi-bin/rmc.pl>. Years of service are W4 – 27 yrs; W2 – 20 yrs; O5 – 20 yrs; O4 – 15 years; O3 – 7 yrs; E6 – 12 yrs; and E2 – 2 yrs.

Table 4. Rental Affordability for Military Families in Harnett 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)	\$483	\$483	\$483	\$483	\$483	\$483
Affordability Gap	\$301	\$800	\$1,228	\$1,807	\$1306	\$2,148
Fair Market Rent (2-bedroom)	\$536	\$536	\$536	\$536	\$536	\$536
Affordability Gap	\$248	\$747	\$1,175	\$1,745	\$1,253	\$2,095
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 (1-bedroom)	\$536	\$536	\$536	\$536	\$536	\$536
Affordability Gap	\$248	\$747	\$1,175	\$1,745	\$1,253	\$2,095
Fair Market Rent (2-bedroom)	\$869	\$869	\$869	\$869	\$869	\$869
Affordability Gap	(\$85)	\$414	\$842	\$1,421	\$920	\$1,762

off-base military housing development that could accommodate between 1,500 and 2,500 housing units. People are attracted to Harnett County’s rural lifestyle and its good schools. Another attraction is Harnett County’s tax rate, which—at \$0.735 per \$100 of property value—is lower than that in adjoining counties such as Cumberland (\$0.88) and Johnston (\$0.78). Appendix A provides more detail on development patterns.

**2. Future Needs**

**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 of 2.6. The percentage of homeowner households is applied to the total households to determine the need for housing.

**Table 5** shows 4,967 for-sale units will be needed to house the total growth expected from 2007 through 2013. The majority of these units (3,610) will be needed for the population associated with normal growth, and thus would have been needed even

without the base expansion; the remainder (1,357) 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.

The most visible residential growth in Harnett County is taking place as a result of its close proximity to Fort Bragg and Pope Air Force Base. Such residential development is occurring primarily in the southwestern area of the county bounded by NC 210, NC 27, and NC 87. Other residential growth, which is taking place in the northern area of the county, is attributable to growth in Wake County. The consensus of those interviewed was that the highest level of growth in Harnett County is, and will continue to be, in the southwestern area of the county close to Spout Springs. Additional growth in this area will be generated by Linden Oaks, an off-base military housing development that could accommodate between 1,500 and 2,500 housing units. People are attracted to Harnett County’s rural lifestyle and its good schools. Another attraction is

Harnett County’s tax rate, which—at \$0.735 per \$100 of property value—is lower than that in adjoining counties such as Cumberland (\$0.88) and Johnston (\$0.78).

**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 of 2.61. The percentage of renter households is applied to the total households to determine the need for housing.

**Table 6** shows 2,039 for-rent units will be needed to house the total growth expected from 2007 through 2013. The majority of these units (1,482) will be needed for the population associated with normal growth, and thus would have been needed even without the base expansion; the remainder (557) 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.

**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

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

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	105,891	107,962	110,054	112,252	114,538	116,837	119,130	
Expected Growth	2,959	4,259	5,180	5,682	6,663	7,474	7,936	
Total	108,850	112,221	115,235	117,934	121,200	124,311	127,066	
Total Households								
Normal Growth	40,727	41,524	42,329	43,174	44,053	44,937	45,819	
Expected Growth	1,138	1,638	1,992	2,186	2,563	2,875	3,052	
Total	41,865	43,162	44,321	45,359	46,616	47,812	48,872	
Homeowner Households								
Normal Growth	28,876	29,441	30,011	30,610	31,234	31,861	32,486	
Expected Growth	807	1,161	1,413	1,550	1,817	2,038	2,164	
Total	29,683	30,602	31,424	32,160	33,050	33,899	34,650	
For-Sale Housing Units								
Normal Growth	--	565	570	599	623	627	625	3,610
Expected Growth	--	354	251	137	267	221	126	1,357
Total	--	919	822	736	891	848	751	4,967

Table 6. –The Anticipated Need for Rental Housing Units in Harnett County

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	105,891	107,962	110,054	112,252	114,538	116,837	119,130	
Expected Growth	2,959	4,259	5,180	5,682	6,663	7,474	7,936	
Total	108,850	112,221	115,235	117,934	121,200	124,311	127,066	
Total Households								
Normal Growth	40,727	41,524	42,329	43,174	44,053	44,937	45,819	
Expected Growth	1,138	1,638	1,992	2,186	2,563	2,875	3,052	
Total	41,865	43,162	44,321	45,359	46,616	47,812	48,872	
Renter Households								
Normal Growth	11,852	12,083	12,318	12,564	12,819	13,077	13,333	
Expected Growth	331	477	580	636	746	836	888	
Total	12,183	12,560	12,897	13,200	13,565	13,913	14,222	
For-Rent Housing Units								
Normal Growth	--	232	234	246	256	257	257	1,482
Expected Growth	--	145	103	56	110	91	52	557
Total	--	377	337	302	366	348	308	2,039

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 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>18</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

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

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 smaller households in the county. Larger households however are challenge to located rental properties with affordable rents. 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 housing industry has responded with an increase in the number of planned developments. 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.

## 4. Recommended Actions

### **Important Action 1: Participate in FORSCOM Housing Fairs and other events organized by the Army and the BRAC RTF.**

*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 such as Harnett County's Anderson Creek. 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.

*Responsible Parties:* The BRAC Regional Task Force has asked Harnett 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 Harnett 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 Assessment.

### **Important Action 2: Secure state and Federal funds to provide homebuyer financing, counseling, and education for qualified homebuyers**

*Description:* Poor or no credit and lack of knowledge about the homebuying process remain significant barriers to individuals hoping to buy a home. Likewise, new homebuyers often lack the budgeting and home maintenance knowledge necessary to keep them in their home for the long term. Homebuyer counseling and education – both pre- and post-purchase – programs that address money management, debt management, bankruptcy counseling and education, and comprehensive housing counseling. Similarly, individuals that are not ready for homeownership may find that credit counseling alone is beneficial.

Responsible Parties: Local realtors, homebuilders, Harnett County, local governments, financing institutions, and local HUD-approved counseling agencies<sup>19</sup> should coordinate the promotion of marketing and outreach; and the BRAC Regional Task Force could lend a hand in this effort.

### **Important Action 3: Encourage Development of Affordable Rental Housing**

*Description:* While Harnett County offers a wide variety of home buying opportunities, it offers fewer apartments and other rental units. The vacancy rate for rental units has declined substantially as the foreclosure crisis forces former homeowners into rental housing. Rental housing is now in short supply. Although most for-rent housing 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, local governments, financing institutions, and the State of North Carolina Housing Finance Agency should coordinate the development of new rental housing; and the BRAC Regional Task Force could lend a hand in this effort.

### **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>20</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.

*Responsible Parties:* Harnett 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.

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

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

## E. Water, Wastewater, and Solid Waste

*The majority of water and sewer service in the county is provided by the Harnett County Department of Public Utilities. The projected 16,000-person, military-related population increase (2025) in Harnett County could translate into an additional peak water and sewer demand of approximately 2.4 million gallons per day. It is expected that the County would be responsible for providing the majority of that flow. The County is largely prepared to handle normal growth, but is not prepared to accommodate the growth to be caused by BRAC. Additional provisions will need to be made to prepare for the possibility that, at some point in the near future, this capacity could be affected “prematurely” by the military-related growth. Meeting projected demand for normal growth through 2030 will cost the County approximately \$84 million for water and \$29 million for wastewater; military-related growth will account for an additional \$12 million for water and \$24 million for wastewater.*

### 1. Current Conditions

#### a. Water

*Harnett County:* Harnett County is located in the Cape Fear River Basin. The Harnett County Department of Public Utilities supplies the municipalities of Lillington, Angier, Coats, Erwin, and the village of Buies Creek with water drawn from the Cape Fear River. Harnett County also supplies some water to the five contiguous counties of Cumberland, Lee, Wake, Johnston, and Moore. Through bulk purchase agreements, the County also provides all of Holly Springs’ and Linden’s water as well as about half of the water used by Fuquay Varina and Spring Lake.

Harnett County’s water system consists of nine different rural water and sewer districts. These districts have a total of over 1,800 miles of water mains and currently have over 40,000 connections. The Water Treatment Plant’s current capacity of 16 million gallons per day (MGD) will increase to 48 MGD upon the completion of an expanded raw-water intake that will allow the withdrawal of 48 million gallons per day (MGD).

Approximately 98% of all Harnett County residents have access to public water. Buies Creek, Angier, Coats, and Lillington have their own water systems, but are also supplied with bulk water from Harnett County. The County’s water system served a user population of 87,000. The average daily demand that year was 7.924 MGD. Total water use was divided as follows: 99% residential, 0.5% commercial, and 0.5% institutional.

Harnett County obtains its water from a withdrawal in the Cape Fear River as well as purchases from the following water systems: Apex, Cary, Dunn, Erwin, Fuquay Varina, Holly Springs, Johnston County, Raleigh, and Smithfield. They also have regular connections with Angier, Coats, Lillington, Linden, and Woodlake. The system has a finished water storage capacity of 17.680 MG. A 20-inch diameter line has been recently upgraded along NC 27 southwest of Lillington.

*City of Dunn:* The City of Dunn, located in the southeast corner of Harnett County, runs its own public water system. The system has approximately 85 miles of water distribution lines. The Dunn water system has a maximum capacity of 8.0 MGD, with a peak load of only 5.6 MGD. Dunn has surplus water capacity and supplies water to communities in Johnston, Cumberland, and Sampson Counties. The Dunn water system serves a population of 10,143 with an average daily demand of 4.70 MGD. Total water use was divided as follows: 83% residential, 14% commercial, 1% industrial, and 2% institutional. Dunn obtains its water from surface water, as well as one withdrawal from the Cape Fear River; it also purchases a portion of its water from Harnett County. Dunn’s contract with Harnett County is for up to 2.5 MGD. Dunn also has regular connections with Sampson County, the Town of Benson, and the Town of Falcon. The system has a finished water storage capacity of eight 8.0 MG.

*Town of Angier:* The Town of Angier, located in northern Harnett County, runs its own public water system. The system has approximately 32 miles of water distribution lines. The Angier water system serves a population of 3,750 with an average daily demand of 0.354 MGD. Total water use was divided as follows: 91% residential and 9% commercial.

Angier obtains its water from Harnett County. Their contract with Harnett County is for up to 2.02 MGD. The Angier system has a finished water storage capacity of 0.850 MG.

*Town of Coats:* The Town of Coats, located in eastern Harnett County just east of Lillington, runs its own public water system. The system has approximately twenty miles of water distribution lines. The Coats water system serves a population of 1,845 with an average daily demand of 0.160 MGD. Total water use was divided as follows: 99% residential, 0.5% commercial, and 0.5% institutional. The Town of Coats obtains its water from Harnett County. Their contract with Harnett County is for up to 0.720 MGD. The Coats system's finished water storage capacity was not published in the 2002 Local Water Supply Plan.

*Town of Erwin:* The Town of Erwin, located in southeastern Harnett County just west of Dunn, runs its own public water system. Erwin obtains its water from a withdrawal in the Cape Fear River. Erwin also has emergency connections to the City of Dunn and to Harnett County. The system has approximately 30 miles of water distribution lines. The Erwin water system serves a population of 4,685 with an average daily demand of 0.581 MGD. The Erwin system has a finished water storage capacity of one 1.0 MG. Total water use was divided as follows: 92% residential, 7% commercial and 1% institutional.

*Town of Lillington:* The Town of Lillington, located in the center of Harnett County, runs its own public water system. Lillington obtains its water from Harnett County. Their contract with Harnett County is for up to 2.0 MGD. The Lillington system has a finished water storage capacity of 0.800 MG. The system has approximately 24 miles of water distribution lines. The Lillington water system serves a population of 2,917 with an average daily demand of 0.329 MGD. Total water use was divided as follows: 80% residential, 13% commercial, 1% industrial and 6% institutional.

## **b. Wastewater**

*Harnett County:* The Harnett County Department of Public Utilities operates four wastewater treatment

plants having a combined treatment capacity of 1.95 MGD and serving approximately 12,000 county residents. Three of the four plants discharge directly into the Cape Fear River, and the other facility discharges into Jumping Run Creek.

There are currently two large wastewater construction projects underway in Harnett County. The South Harnett Water and Sewer project will expand the service area west of NC 210 to serve the growing Anderson Creek area. Phase 1A of this system will provide a collection system and a 5.0 MGD treatment plant; there are plans to add another 10 MGD when necessary. The proposed North Harnett Regional Waste Water Treatment Plant will be located on the Cape Fear River and will serve the Lillington, Angier, Buies Creek, and Carolina Lakes areas. This waste water treatment plant site will have an initial capacity of 7.5 MGD; while the plant will be expandable, it should have adequate capacity as currently designed. These two construction projects will raise Harnett County's wastewater treatment capacity from the current 1.95 MGD to 12.5 MGD. The County has plans to decommission the existing Carolina Lakes plant. In this regional plan, the County is also including provisions to accept wastewater flow from the Town of Spring Lake, if Spring Lake chooses to pursue that as an option.

*City of Dunn:* The City of Dunn has one wastewater treatment plant with a capacity of 3.75 MGD. The sewer system serves a population of 10,143. There are ten water customers using septic systems.

*Town of Angier:* The Town of Angier sewer system serves a population of 3,750. The Town operates two wastewater treatment facilities with a combined capacity of 0.758 MGD. There are 350 water customers using septic systems.

*Town of Coats:* The Town of Coats sewer system is run by the County.

*Town of Erwin:* The Town of Erwin's wastewater treatment capacity is 1.28 MGD. The sewer system serves a population of 4,685. There are no water customers using septic systems.

*Town of Lillington:* The Town of Lillington sewer system serves a population of 2,917. Treatment is provided by the Harnett County plant. There are eight water customers using septic systems.

### **c. Solid Waste**

There are six governments with solid waste management programs in Harnett County including the County and the Towns of Angier, Coats, Dunn, Erwin, and Lillington. A summary of the solid waste programs in the County is provided in Water, Wastewater, and Solid Waste appendix and in this section.

Harnett County operates six staffed convenience centers for the collection of residential waste. The County, via contract with Republic Services, transfers waste collected at each convenience center to one of their two transfer stations. The contract with Republic Services will expire in 2011.

Harnett County accepts recyclables at all convenience centers and allows residents of municipalities as well as some commercial and industrial businesses to use their convenience centers for the drop-off of recyclables. Angier, Coats, Dunn, Erwin, and Lillington each offer weekly residential curbside waste collection through contracts with private haulers. Angier, Coats, and Erwin each also have one or more un-staffed collection sites for recyclables. Dunn and Erwin each provides curbside collection of white goods. Harnett County established a recycling task force in 2007 to study recycling programs elsewhere and make recommendations for program alternatives. The task force is currently putting together recommendations.

Harnett County also collects lead acid batteries, tires, and pesticide containers. No municipality provides collection of special wastes. The Central Carolina Tire Processing Facility (State Permit No. 43-08) and Monofill (State Permit No. 43-04) is a private facility used for tire processing and disposal located near Johnsonville. Yard wastes in Harnett County are collected and mulched/composted at the County's Dunn/Erwin and Anderson Creek Landfill facilities. Each municipality provides curbside collection of yard wastes. There are also three private land clearing

and inert debris (LCID) landfill facilities located in Harnett County.

Harnett County currently owns and operates two transfer stations and charges a \$30/ton tipping fee at both. The transfer station in Lillington (State Permit No. 43-05T) handled 10,938 tons of waste in 2005-06. The transfer station located in Dunn (State Permit No. 43-07T) handled 43,187 tons of waste in 2005-06. Municipal solid waste collected at both transfer stations is hauled by contract with Waste Industries to the Sampson County Disposal Landfill in Roseboro (State Permit No. 82-02).

The county also owns and operates two construction and demolition landfills. Construction and demolition (C&D) debris is accepted for disposal at Harnett County's C&D landfills in Lillington (Anderson Creek - State Permit No. 43-03) and Dunn (Dunn/Erwin - State Permit No. 43-02), for which the County currently charges a \$30/ton tipping fee. In FY 2005-06, 20,115 tons and 13,237 tons of waste were disposed in the Anderson Creek and Dunn/Erwin Landfills, respectively. The County currently estimates that they have about four years and twelve years of remaining capacity for the Anderson Creek and Dunn/Erwin Landfills, respectively, based on their current facility plans. Additionally, the County currently estimates that they have approximately fifty years of additional expansion potential at their Anderson Creek Landfill.

Table 7. 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	
Town of Lillington	\$16.05	Near median	\$21.27	Near median	1.12
Town of Angier	\$19.15	At median	\$37.25	Near median	1.48
Town of Coats	\$22.13	At median	Na	Na	.96
City of Dunn	\$23.25	At median	\$23.00	Near median	0

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

**d. Local Rate Structures**

The county’s water rates range from a low of \$16.05 to a high of \$23.25. Compared with rates charged by other local, North Carolina systems having similar revenues, most of Harnett’s rates are at or near median. Local sewer rates, which range from \$21.27 to \$37.25, are all near the median of the comparison groups as well (**Table 7**).

The Town of Angier has a strong operating ratio of 1.48, while the City of Dunn’s operating ratio of zero is the county’s lowest.

Harnett County’s solid waste program is funded primarily by household fees and transfer station and C&D landfill tipping fees. The County’s program is operated as an enterprise fund. The solid waste programs for Angier, Coats, Dunn, Erwin, and Lillington are funded by household fees.

**2. Future Needs**

**a. Water and Wastewater**

The primary issues that the County foresees as resulting from military-related growth is that the water plant’s current 36 MGD capacity is already earmarked for existing and/or planned customers, that is, with no consideration of the population increase from the expansion at Fort Bragg. The next logical expansion of the plant would be to 42 MGD. Harnett County’s public utility efforts have been focused on serving the south central/southwestern portions of the county, areas that have seen exceptional growth due to a strong military presence.

Some of the utility demands created by the changes at Fort Bragg could also be addressed by the size of the planned line from Lillington to Fort Bragg. Current plans call for a 24-inch line, with construction planned to begin in June of 2008. According to Harnett County, this line was sized without consideration of the military-related population increase. The County would need to know before June of 2008 whether the line is to be upgraded. The estimated cost to increase the size from 24 inches to 30 inches is approximately \$4 million.

Planning done to date has reflected normal growth projections but has not considered the growth that will be caused by military expansion. Clearly, the planning process should be revisited soon.

**b. Solid Waste**

The state measures changes in waste-disposal rates by comparing the current year’s per capita waste disposal rate to fiscal year 91-92’s per capita rate—which is considered the base rate. (Per capita disposal rates are calculated by dividing the total tonnage of disposed waste by the number of users served.) Negative numbers indicate a decrease in the per capita disposal rate; positive numbers indicate an increase. Waste reduction is a change from the base year, not a change from year to year. The state per capita disposal rate is 1.34 tons per person per year, an increase of 25% from the FY 91-92 base year.

Despite the addition of a few new curbside programs in the state, the overall number of municipal curbside recycling programs has declined in recent years. The recycling industry has evolved dramatically in the past fifteen years and, unless small and mid-sized

municipal governments update their programs to reflect the current state of the industry, it is likely that the trend towards fewer curbside recycling programs will continue. In a properly developed program, each household could potentially generate up to 750 pounds of recyclables per year. North Carolina households are contributing only about 240 pounds of recycling per year to their local recovery programs. It is very clear that improving the breadth of program collection and increasing participation are keys to improving recovery.<sup>21</sup>

### 3. Gaps

Some small impact to the County and municipal solid waste programs are expected from the expected growth anticipated by the military-related growth as well as on-going growth due to the County’s proximity to the Triangle region. However, it is likely that these impacts can be handled by existing facilities and practices.

Meeting the demand caused by normal population growth through 2030 will cost Harnett County approximately \$54.6 million for water and \$12 million for sewer.<sup>22</sup> Population growth generated by

military growth is projected to be about 7,936 people in 2013. This could translate into an additional water and sewer demand of approximately 1.2 MGD and thus an additional capital requirement of \$6 million for water and \$12 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 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 sufficiently fund these services will inevitably expose their communities to health and environmental hazards.

21. North Carolina Solid Waste Management Annual Report July 1, 2006 – June 30, 2007.

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

Table 8. Analysis of General Obligation Debt

	Ratings		Ratio of Total General Obligation Debt <sup>1</sup>	
	Moody's	S&P	Property Valuation (%)	Per Capita (\$)
Harnett County	Na	Na	1.944 (avg.)	980 (avg.)
Counties (100,000 -249,999 pop.)	Na	Na	1.451	1,170 (avg.)
Town of Lillington	Na	Na	0.088 (avg.)	56 (avg.)
Municipalities (2,500 – 4,999 pop.)	Na	Na	0.122 (avg.)	123 (avg.)
Town of Angier	Na	Na	0.043 (avg.)	22 (avg.)
Municipalities (2,500 – 4,999 pop.)	Na	Na	0.122 (avg.)	123 (avg.)
Town of Coats	Na	Na	Na	Na
Municipalities (1,000 – 2,499 pop.)	Na	Na	0.169 (avg.)	170 (avg.)
City of Dunn	A3	BBB+	0.207 (avg.)	133 (avg.)
Municipalities (5,000 – 9,999 pop.)	Na	Na	0.178 (avg.)	161 (avg.)
Town of Erwin	Na	Na	0.203 (avg.)	82 (avg.)
Municipalities (2,500 – 4,999 pop.)	Na	Na	0.122 (avg.)	123 (avg.)

This section describes major financing alternatives available to local governments including bonds, grant 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. Harnett County is unrated. They 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 8**)<sup>23</sup>.

*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>24</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 number of grant funds available for water and sewer improvements.<sup>25</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.

- 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>26</sup>.

*Solid Waste:* The increase in solid waste resulting from the projected population increase is expected to have some impact on county and municipal solid waste programs as well as the program at Fort Bragg. It is likely, however, that these impacts can be handled by existing facilities and practices. Nonetheless, the city’s recent recycling efforts should be applauded and other municipalities in the county should consider implementing additional recycling programs. Available funding includes:

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

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

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

26. 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.

- Community Waste Reduction and Recycling Grants are a standard annual grant cycle that the State Division of Pollution Prevention and Environmental Assistance (DPPEA) offers to local government and non-profit recycling programs to expand and improve community recycling efforts.
- Business Recycling Grants, also offered by DPPEA, are designed to help businesses afford or leverage a critical capital expenditure and thereby expand their material-handling capacity. These expansions, in turn, translate into new market opportunities for local government recycling programs and for waste generators of all kinds.
- The State's Recycle Guys and RE3 Outreach Campaigns increase public participation in recycling.
- In addition to the above opportunities, North Carolina offers a tax exemption on equipment and facilities used exclusively for recycling and resource recovery. The tax program also includes special tax treatment for the corporate state income tax and the franchise tax on domestic and foreign corporations. The N.C. Division of Waste Management administers the Tax Certification Program.

## 4. 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: Coordinate local water and wastewater planning with the Fort Bragg Garrison**

**Description:** New infrastructure should not be placed in areas where it would encourage development incompatible with the mission of the Fort Bragg/Pope military complex. Fort Bragg should be included in all major local infrastructure planning. This will be especially important as Fort Bragg and surrounding local communities seek mutually beneficial opportunities to enhance services.

**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 3: 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 4: 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 5: Serve as a model in the region of water management practices**

*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. Harnett County is in a position to serve as a model for the region of how to own and operate a county-wide water program. Preliminary discussions regarding a regional water quality summit in Harnett County are encouraging.

*Responsible Parties:* Harnett County management, local elected officials and other clean water stakeholders should work collaboratively to share best practices in water management with other service providers throughout the region.

## F. Information and Communication Technology

*Areas expected to experience BRAC-related commercial growth lack the connectivity needed to support development. Harnett County has been working to equip all public safety and emergency response personnel to be part of the state's VIPER first-response communication network. High-speed connectivity to all K-12 schools, financed by a combination of federal e-rate dollars and state/local funds, is in place. Increased use of web-based instruction and distance education is going to require that school construction codes be updated to accommodate additional computers. Annual education and government operations budgets need to reflect regular hardware and software updates as well as increases in network support and maintenance. In the higher-education arena, relevant degree programs should be added and expanded to increase throughput of the certified graduates needed to support the region's growing demand for network specialists. Videoconferencing (VC) facilities must be employed to enhance sophisticated education, training, and business communications and to extend these services to underserved communities. Currently, there are no videoconferencing facilities that support distance education and training in a group setting in Harnett County. Increased use of the Internet to deliver information and services directly to citizens and businesses will require that the County and its municipalities develop and maintain a web-enabled interface that is interactive, transactional, and current.*

### 1. Current Conditions

#### a. Current Access Status

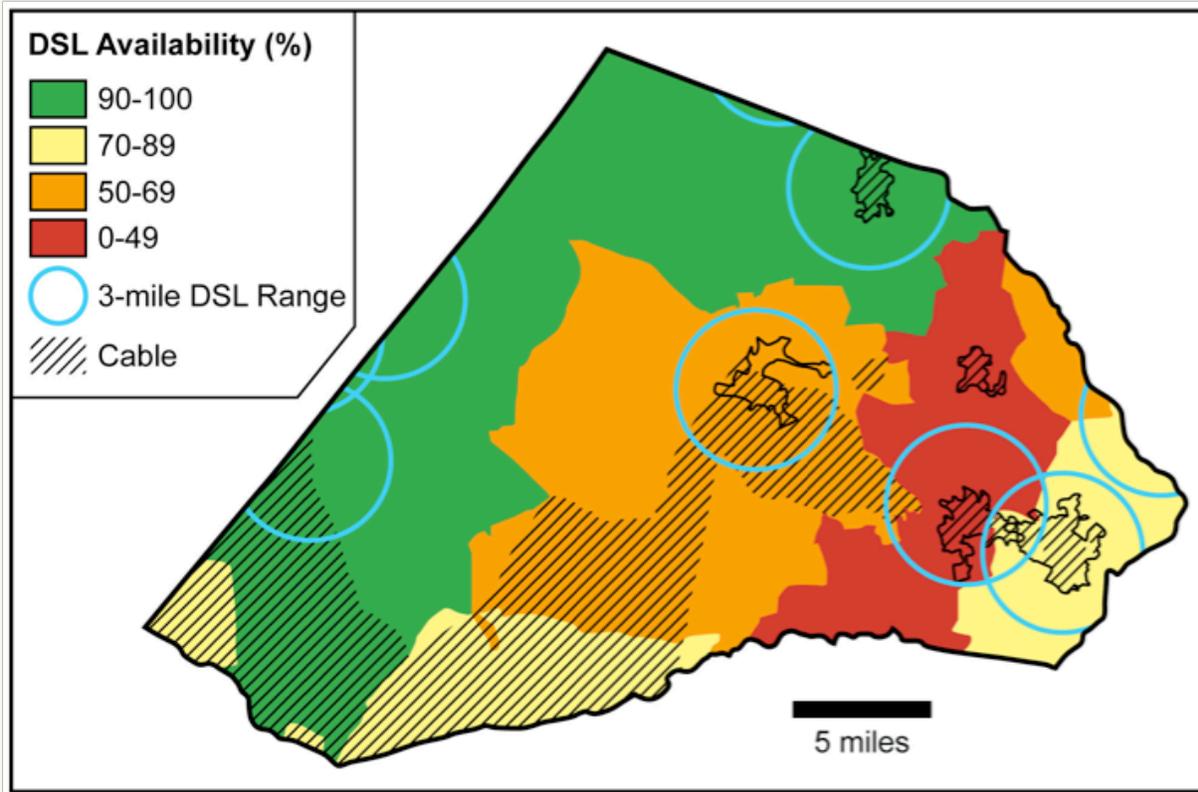
Harnett County has the fifth lowest level of citizens with access to broadband among the seven counties that comprise the TIER I BRAC region. Broadband Internet access is available for purchase at 84.94% of Harnett households, slightly higher than the North Carolina composite figure of 83.54%. This figure includes cable and DSL-based access, as self-reported by the provider companies. The ways that providers define service coverage are not wholly reliable,

however, which means that the composite figure may not reflect the actual percentage of households that can obtain broadband access. For example, cable companies designate service areas that are identified by zip codes as “covered,” when in fact all locations within a given zip code may not be served by the cable companies. Thus, the 83.54% composite figure undoubtedly overstates the level of access available in large areas of the county.

The extent of Internet availability for Harnett County is shown in **Figure 15**. As this map indicates, access exceeds 90% in the northern and western portions of the county, where residential development is being driven by the exploding RTP and Fort Bragg markets. The situation in the eastern and southern portions of Harnett County is quite different. None of the county's largest municipalities, including the county seat, fall in the desirable “90-100% DSL Availability” connectivity category; and a swath that bisects the county and includes Coats and Erwin has connectivity access rates below the 50% mark. Projections made in other sections of this report suggest there is a strong likelihood that growth at Fort Bragg will generate commercial development along eastern Harnett County's I-95 corridor. The lack of adequate ICT infrastructure in this region will make eastern Harnett less attractive and will thus dampen development.

Another factor that compromises existing access 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 15 would not significantly enlarge the portion of the county that does not have adequate service. This means that in Harnett County there may be significant overlap in areas served by cable-modem and by DSL-based services.

Figure 15. Average availability of DSL service



Harnett County ICT providers are listed in **Table 9**.

In addition to localized problems of inadequate access, there is the more generalized issue of inadequate speed and bandwidth. Broadband access in Harnett County is largely accomplished 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. 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>27</sup> as found in the Information and Communication Technology appendix.

**b. Sector-Specific Connectivity Issues**

Efforts already underway in Harnett County highlight the need to make ICT and universal broadband

27. 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).

Table 9. High-speed Internet Access Providers Serving Harnett County

Cable	Carolina Cable Partners, Charter Communications, and Time Warner
Telcos	Embarq and Windstream
Satellite	Harnett County customers with a clear view of the southern sky have access to Direway & Starband high-speed Internet Service.
Wireless	DockPoint and Inteliport

Table 10. VIPER Implementation Status-Emergency Services Radio Requirement for Harnett County

Law Enforcement (1 Per Sworn + 1 Per 1/3 Civilian not VIPER Compatible)	179
Fire Department not currently VIPER Compatible	300
Rescue Squad not currently VIPER Compatible	106
TOTAL Radios for Emergency Responders	585

access a cornerstone of the County’s economic and community development plans. These efforts are described below.

*Public Safety:* Harnett 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,<sup>28</sup> 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, two of the county’s three VIPER transmission towers are on the air and operational in Cokesbury and Sprout Springs. A third tower (Erwin PE) is scheduled to be on the air and operational sometime in the fourth quarter of 2008. An additional 585 radios with a total cost of \$1,901,251 are needed to complete the Harnett VIPER network. **Table 10** shows the number of radios required by specific sectors of Harnett County’s first responders.

*Education:* The Harnett 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. Harnett 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>29</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 Harnett County Local Education Agency (LEA) is fully funded by a combination of federal e-Rate dollars and the N.C. School Connectivity Initiative. Time Warner 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 on-going 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 Harnett 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

29. 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.

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

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. Crosscutting 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.

**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 Harnett 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. In Harnett County each ICT technician serves an average 3.4 schools, which is the median workload for the seven BRAC Tier I counties. A more troubling result is the finding that only one of the 10 technical service personnel employed by Harnett County reported being certified in the LAN/WAN technology that serves as the backbone that connects each school, through the central office, to the public Internet and state education networks. It is clear that more and better certified technical support personnel are needed to manage the growing ICT needs of Harnett County schools.

Proximity to the tech-intensive Research Triangle Park makes it difficult for counties in the Fort Bragg region to attract and keep highly-trained ICT personnel. Both instructors and graduates

of computer and network training programs are frequently drawn to more lucrative employment opportunities in the RTP region.

#### *Higher Education/Adult Learning*

Campbell University and Central Carolina Community College, which serves Harnett County, both provide degree and certification programs that prepare the skilled technicians and professionals needed to meet the growing demand for ICT services in the county and the region. Training and educational opportunities are augmented by strong programs at 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 the Information and Communication Technology appendix. Similar data for other institutions in the region is 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. Currently there are no videoconferencing facilities available to support education and training in Harnett County.

#### *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.

Harnett County has made significant strides in developing a website that is useful to citizens as well as businesses. It has also developed useful links as well as content relevant to newcomers and relocating military personnel. Further enhancements are recommended.

Harnett County’s e-government website has been evaluated on the basis of content and usability against best practice models in Havelock, NC (<http://www.cityofhavelock.com/>) and Northwest Florida (<http://www.welcometonorthwestflorida.com/index1.html>). Results of the analysis are summarized in

**Table 11.** In general, the site is well designed and useful; however, the absence of a newcomers’ guide and links to properties for sale detract significantly

from the usefulness of the site to incoming residents and businesses.

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. In this regard, Harnett might consider following the example of Montgomery County. Montgomery provides and maintains a common template that its smaller

Table 11. Harnett County Website Analysis

Website Address	www.harnett.org
Preliminary Questions	Observations
Links to Local Government?	NO
Links to BRAC-RTF?	YES
General Items	Observations
Website Appearance	Professional appearance
Usability	Easy to navigate
Site Structure	N/A
Audio/Visual Capabilities	NONE
External Web links	Links to newspapers, radio stations, and TV stations
Contact Information	Contact information not included on every page
Employee Directory	Complete departmental contact listing
Calendar	Community calendar
Searchable Databases	Property Tax Search; Obituary Database; Register of Deeds; E-911 Address Search
Forms, Applications, & Permits	Various downloadable and online forms available (e.g., marriage applications, public utilities forms, etc.)
Scheduling System	Schedule or cancel inspections online
Transactional Capabilities	Online tax payment
BRAC Information	BRAC Information page
GIS	GIS Spatial Data Explorer; GIS Map Gallery Online
Newcomer’s Guide	NONE
Listing of Property for Sale	NONE
Tax Information	Tax information
Employment Opportunities	Online employment applications
Library Link	Harnett County Library Online Catalog
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	Does not have a last-updated date, but webmaster contact information is listed

municipalities can populate with current information. In so doing, Montgomery enhances its ICT services and supports balanced growth across the county.

County governments in the Fort Bragg region were surveyed regarding the numbers and types of

ICT support personnel they employed. Results varied widely and did not allow for a qualitative statement regarding the actual levels of ICT training or expertise achieved by these personnel. Harnett County reported 10 ICT personnel, giving it the largest and most broadly skilled ICT staff of the region’s Tier I counties. Harnett County’s ICT staff is recognized in local government circles as being highly professional and innovative in its approaches to e-government. An important next step will be to use these ICT skills to bring municipal governments to a still higher level of e-government functionality.

**2. Future Needs**

Information and communication technologies (ICT), especially those supporting high-speed broadband Internet use, are 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 is particularly important to Harnett 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 an immediate professional and personal connection with the community, these personnel 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 these 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, Harnett

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 Harnett County. Sixty-one percent of the FORSCOM personnel use DSL to access the Internet, 36% use cable, and less than 4% rely on dial-up modem connections. As shown in **Table 12**, 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 Harnett County.

Table 12. 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%

### 3. 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 importance of this capability in times of emergency is increasing as the influx of military personnel into southeastern NC significantly raises the threat profile of the region. Harnett can reach compliance with the new VIPER standard with the purchase of 585 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:* Harnett 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:* CIO/CTOs for each county and Fort Bragg

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

*Description:* Harnett County should work with the N.C. Telemedicine Network to extend to the Fort Bragg region efforts funded by the Federal Communications Commission to enhance connectivity and should champion their use 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 Harnett County as a best-practice e-government model**

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

*Responsible Parties:* Harnett 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.

## G. Health Care

The development of health services in Harnett County has been held back due to Certificate of Need litigation that has lasted several years. Harnett County faces a great shortage of both physicians and inpatient services. Although a new hospital in central Harnett County will probably be developed in the near future, Harnett County leaders can leverage the expansion of Fort Bragg to support the development of additional, needed services.

### 1. Current Conditions

Due to litigation surrounding the development of an additional hospital in the county, health services in Harnett County have been limited over the past several years. Because a Court of Appeals decision in January of 2008 calls for development of a new 50-bed hospital in central Harnett County, however, it is anticipated that the supply of services in the county will increase in the near future. The new hospital should also bring additional providers and outpatient services to the county.

#### a. Health Care Provider Supply

Approximately 62 health care professional full time equivalents and 18 dentists are based in Harnett County. Betsy Johnson Regional Hospital (BJRH), currently the only facility in Harnett County, is managed by WakeMed, and many physicians split their time between Wake and Harnett Counties. In particular, many nephrologists, oncologists, and cardiologists on the medical staff at BJRH are also on the WakeMed medical staff.

#### b. Acute-Care Hospitals

Harnett County currently has one acute care hospital, Betsy Johnson Regional Hospital (BJRH), which is located in Dunn. According to the facility's 2008 Hospital License Renewal Application, BJRH had 101 acute-care beds that operated at 75% occupancy in fiscal year 2007. In addition to its inpatient services, BJRH offers comprehensive oncology services,<sup>30</sup> mobile cardiac catheterization services, cardiac rehabilitation, and a full range of diagnostic imaging services.

30. Including chemotherapy and radiation oncology.

Harnett County has been operating with reduced bed capacity since April 11, 2006, when Good Hope Hospital effectively closed. The location of beds within Harnett County has been and continues to be the subject of extensive litigation. In 2005, both the Harnett Health System<sup>31</sup> and the Good Hope Health System<sup>32</sup> submitted Certificate of Need (CON) applications to construct a new hospital to be located in central Harnett County. In January, 2006, the CON section of the North Carolina Department of Health Services Regulation (NCDHSR) conditionally approved Harnett Health System's application and denied Good Hope Health System's application. Both parties subsequently appealed NCDHSR's Decision to the North Carolina Office of Administrative Hearings.<sup>33</sup> On January 15, 2008, the North Carolina Court of Appeals affirmed NCDHSR's Final Decision, holding that NCDHSR did not err in its Final Decision.

In the interim, following Good Hope Hospital's closure, more than half of all Harnett County residents seeking treatment at an acute-care hospital have left the county for care. In 2007, approximately 21% of patients originating in Harnett County were treated at Wake County hospitals, including WakeMed Hospital, WakeMed Cary Hospital, and Rex Hospital. Another 30% of patients traveled to Lee, Orange, Cumberland, Moore, Johnston, and Durham counties. It is anticipated that the development of the hospital proposed by Harnett Health System will result in a greater percentage of future Harnett County patients remaining in the county.

#### c. Outpatient Services

Outpatient services in Harnett County are located primarily at Betsy Johnson Regional Hospital and in physician offices. There are no ambulatory surgery centers or diagnostic centers located in Harnett County. All operating rooms in the county are located at Betsy Johnson Regional Hospital, and imaging equipment is located both at the hospital and in

31. Harnett Health System owns Betsy Johnson Regional Memorial Hospital in Dunn, North Carolina.

32. Good Hope entered into a joint venture with Triad Hospitals, Inc. and formed Good Hope Health System.

33. Good Hope Health System appealed the Decision, and Harnett Health System appealed the condition imposed upon it by NCDHSR.

physician offices. Harnett County's single Urgent Care center is located in Dunn.

#### **d. Home Health**

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

The following home health agencies serve Harnett County:

- Harnett County Home Health Agency
- Liberty Home Care

#### **e. Behavioral Health**

In Harnett County, behavioral health services are managed by the Sandhills Center for MH/DD/SAS.<sup>34</sup> The Sandhills Center manages and, in some cases, provides the following services:

- Outpatient therapy
- Psychiatric services
- Case management
- Residential services
- Day services
- 24-hour inpatient services
- Periodic services
- Emergency services

Access to these services is provided through the Harnett County access unit located off of Highway 421 South in Buies Creek.

In 2001, as noted previously, Good Hope Hospital was awarded a CON to construct a replacement hospital for its existing facility. Since the award of the 2001 CON, Good Hope Hospital has submitted additional CONs regarding its facility. To date, Good Hope Hospital has not developed the replacement hospital pursuant to the 2001 CON, nor has the

facility retracted the CON. Instead, Good Hope Hospital has kept its 2001 CON, pending resolution of current appeals. Until the resolution of current litigation, the State Medical Facilities Plan reflects that Good Hope Hospital has CON approval for 34 acute-care beds and 14 inpatient adult psychiatric beds. Since these psychiatric beds are not licensed, there are no official inpatient psychiatric beds located in Harnett County.

## **2. Future Needs**

Harnett County has substantial needs for additional physicians and acute-care beds. It is likely that the development of a new hospital will meet a portion of these needs; however, the expansion of Fort Bragg represents a significant opportunity for physician recruitment and may provide leverage for expanding bed capacity in the County.

### **a. Physician Needs**

As shown in **Figure 16** the HPS Physician Demand Model indicates that there is a need for physicians across all specialties in Harnett County.

<sup>34</sup> MH/DD/SS is short for Mental Health/Developmental Disabilities/Substance Abuse Services.

Figure 16. Projected number of health care professionals needed in Harnett County in 2013 compared to the estimated supply

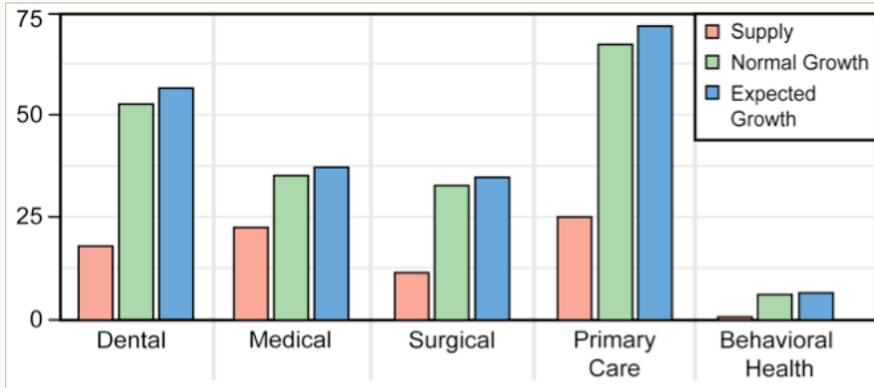
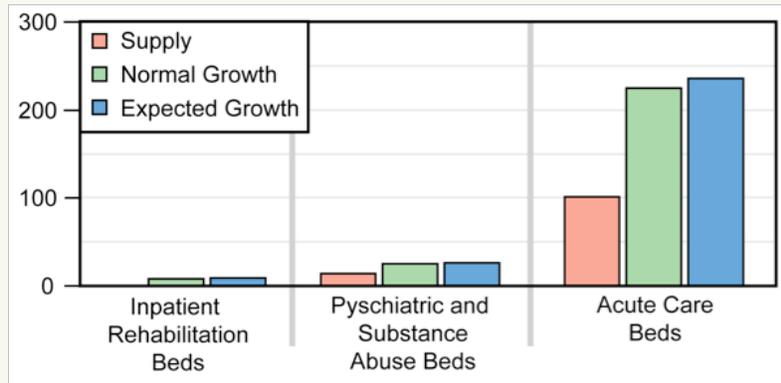


Figure 17. Projected need for inpatient beds in Harnett County in 2013 compared to the estimated supply



**b. Inpatient Bed Need**

As shown in **Figure 17**, there currently is a significant need for behavioral health, acute-care, and rehabilitation beds in Harnett County.

As discussed previously, the development of additional acute-care beds has been delayed due to CON litigation. However, at least 50 additional acute-care beds will probably be developed in Harnett County over the next several years and 34 beds are being held as part of ongoing CON litigation. If and when the expansion at Fort Bragg results in population growth and the return of patients to Harnett County the two hospitals in the region may have the leverage needed to submit a special-needs petition for additional acute-care beds in Harnett County.

**c. Physician Needs**

Harnett County does not currently have enough physicians to meet the needs of its residents in a local setting. However, the county’s existing supply of physicians does seem sufficient for the acute-care and outpatient services currently provided in the county. Two factors will likely drive the recruitment of new physicians over the next several years: the development of a new hospital and the expansion at Fort Bragg. The new hospital will provide the inpatient acute-care and outpatient services necessary to support additional physician practices in the county. In addition, an estimated 8,659 to 10,147 residents are expected to re-locate to Harnett County as a result of the expansion at Fort Bragg. As described in other sections of this report, this expansion will undoubtedly lead to additional development in the

county, which should, in turn, drive the development of the physician practices needed to support that population.

Harnett County can currently support more dentists and, with normal population growth plus growth related to the expansion of Fort Bragg, the county could support an additional 34 to 40 dentists. The leadership in Harnett County along with other counties in the region needs to work with the dental school at UNC-Chapel Hill and the proposed dental school at East Carolina University to recruit additional dentists to the region.

#### **d. Inpatient Bed Needs**

The supply of psychiatric beds in Harnett County is also pending the results of ongoing CON litigation. Even if the 14 beds currently being held as a result of pending litigation licensed, there will still be a need for approximately 12 additional psychiatric and substance abuse beds.

Harnett County has a need for fewer than 10 inpatient rehabilitation beds, a number that is probably not sufficient to justify development of a new inpatient rehabilitation service. These patients can be treated effectively at regional referral centers that have inpatient rehabilitation programs—those, that is, in Cumberland, Wake, Orange, and Durham Counties. According to the 2008 State Medical Facilities Plan, each of these programs has the capacity to accept additional patients that may result from the expansion at Fort Bragg.

### 3. Recommended Actions

#### **Important Action 1: Convene task force to focus on the recruitment of additional specialists to the region**

*Description:* Primarily because acute-care and outpatient services are so limited at present, there is a severe shortage of physicians located in Harnett County. The development of a new hospital and the expansion at Fort Bragg is likely to stimulate recruitment activities, however. It is recommended that a collaborative working group of regional providers come together to focus on physician recruitment.

*Responsible Party:* Betsy Johnson Regional Hospital (BJRH) and physician leaders in the county

#### **Important Action 2: Update/develop a long-term health services plan for the county**

*Description:* The development of health services in Harnett County has been hampered by pending litigation for several years. Following the resolution of this litigation, leaders in the health sector must update both inpatient and outpatient services in the county to meet not only the current demand for services located closer to Harnett County residents' homes but also the demands related to the expansion of Fort Bragg. It is suggested that master plans for the county be developed and updated.

*Responsible Party:* BJRH and physician leaders in the county

## H. Hospitality and Cultural Resources

*Lodging and food and beverage establishments are generally limited in Harnett County, with most businesses being located in and around the communities of Dunn and Erwin near Interstate 95. Meeting space is also limited throughout the county, though a few large facilities exist in Dunn. Lillington provides just one hotel operation along with a number of casual theme and quick service restaurants. Though Harnett County residents generally rely on the programs and facilities in neighboring Cumberland County for major events, Harnett does provide a modest array of parks, recreation, and cultural programs. Because river access is an important recreational issue in Harnett County, increasing the number of landings on the river is currently a focus of county government. Funding for culture and the arts continues to be a challenge.*

### 1. Current Conditions

#### a. Lodging

Accommodations in Harnett County are concentrated in the City of Dunn. Of the eleven properties in the county, ten are in Dunn and one is in Lillington. Properties range from small-scale bed-and-breakfasts to a 120-room Hampton Inn. **Table 13** shows the traditional lodging properties existing in Harnett County.

**Figure 18** indicates the amount of lodging tax receipts (an indicator of the trends in overall demand for lodging) for the years 2005 through 2007.

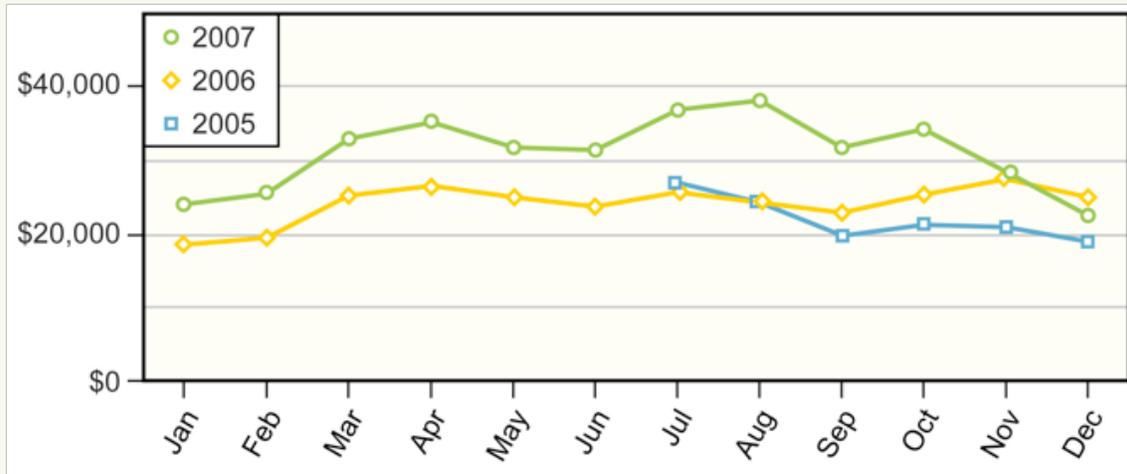
Recent trends in occupancy tax receipts demonstrate increased demand in Harnett County. The most significant growth occurred in 2007, the year the Hampton Inn opened. It must be noted that, because figures from November and December 2007 do not include Ramada Inn receipts (which were not available at the time research was conducted), the total figures for these two months do not appear to reflect an increase. In fact, it is estimated that total tax receipts exceeded those of the previous year by margins similar to those recorded for preceding months. The Hampton Inn—which represents a move to quality branded property in the area—has attracted significant demand that might have diverted to neighboring counties before its completion in 2007.

Hotels in Harnett County have not typically attracted much demand from visitors to Fort Bragg. The market focus is on I-95 highway traffic and traffic from the north and west (leading to Raleigh and the Research Triangle Park). Primarily because existing access to Fort Bragg is so inconvenient, hotels in the county have not enjoyed a significant amount of government business. There is currently no direct, high-speed, route into the installation from the Dunn area. Access will be dramatically improved by the extension of I-295 to the All American Freeway in Fayetteville.

Table 13. Accommodations in Harnett County

Name of Establishment	City	Rooms
Microtel Inn and Suites	Lillington	57
Holiday Inn Express Hotel Dunn	Dunn	69
Jameson Inn Dunn	Dunn	42
Hampton Inn Dunn	Dunn	120
Comfort Inn Dunn	Dunn	57
Relax Inn	Dunn	21
Econo Lodge Dunn	Dunn	105
Red Carpet Inn Dunn	Dunn	140
Express Motel	Dunn	120
Ramada Inn	Dunn	100
Source: Smith Travel Research; PKF Consulting		

Figure 18. Amount of Lodging Tax Receipts in Harnett County



Food and beverage establishments are concentrated near the heavily-traveled routes within the county. Fast food and casual theme restaurants line US-421 from Dunn to Erwin, though most are physically in Dunn proper. Lillington also has a high concentration of fast food and quick, casual restaurants. The inventory of food and beverage establishments seems adequate to meet the demands of area residents and transient visitors.

In the past, because accessing Fort Bragg from Harnett County has been difficult, Fort Bragg has not generated much demand for meeting space in Harnett County. Better access to Fort Bragg, which will be provided by the extension of I-295 to the All-American Freeway, should increase Fort Bragg’s use of Harnett County’s indoor and outdoor meeting spaces.

**b. Meeting Space**

Meeting space in Harnett County is concentrated in Dunn, as shown in **Table 14**. Meeting and conference facilities are located in a wide array of facilities, from country clubs to event-specific venues. The table below lists the meeting facilities available in the county.

Large meeting space is available in several venues throughout the county. The largest such facility in the area is the Shrine Building located in downtown Dunn, which can accommodate up to 999 people. The building is a converted Piggly Wiggly supermarket that has been renovated to accommodate various types of events. The Dunn Community Building and Stewart Theatre can host up to 500 people. Additional meeting space can be found in the area’s historic mansions and houses. Meeting space co-located with hotel properties is limited; space for small groups is available at the Holiday Inn Express and Hampton Inn.

Table 14. Meeting Facilities - Harnett County

Name of Establishment	City
The Alspaugh Center	Dunn
Barclay Villa	Angier
Barrington House	Dunn
The Campbell House	Dunn
Campbell University	Dunn
Cypress House	Dunn
Divine Street B&B	Dunn
Dunn Community Building	Dunn
Howard House	Dunn
Holiday Inn Express	Dunn
Hampton Inn	Dunn
Pine Hills South	Dunn
The Regency Conference Center	Dunn
Sandy Ridge Country Club	Dunn
Shrine Building	Dunn
Stewart Theater	Dunn
Triangle South Enterprise Center	Dunn
Willow Pond Farmstead	Coats
Woodmen of the World Building	Dunn

**c. Parks and Recreation**

Parks and recreational activities are concentrated in the major municipalities of Erwin, Dunn, and Lillington. These municipalities offer typical youth and adult sports and recreational activities. The County is responsible for parks and recreation outside these cities, particularly in its western sectors. Currently the county and its cities have adequate programs, parks, and overall capacity for their residents. Major facilities and amenities offered in Harnett County include:

- *Trails:* Dunn-Erwin Rail Trail; Cape Fear River Trail
- *Parks:* Raven Rock State Park; Neill’s Creek; Barbeque Creek; South Harnett; Cape Fear River Park
- *Community and Recreation Centers:* Dr. P.K. Vyas; Dunn Community Building
- *Senior Activities:* Anderson Creek Senior Center

The Dunn-Erwin Rail Trail and the Cape Fear River Canoe Trails are major attractions that showcase the area’s natural environment. The Dunn-Erwin Rail Trail takes advantage of a former rail corridor, and currently offers 5.3 miles for walking and biking. The Cape Fear River is accessible in Lillington and Erwin, as well as other less developed locations. The Cape Fear River Park is currently under construction in Erwin. This park will include trails and a rest area. Campbell University, located in Buries Creek, also offers spectator sporting events and facilities.

The County recently purchased 1,000 acres for the Anderson Creek Park in the Overhills area of southwestern Harnett. According to the County’s Recreation and Parks Master Plan, the primary activities of this ‘western regional park’ will be passive in nature; for example, equestrian, walking, and nature trails, wetland walks, campgrounds, picnic areas, and a nature center

The land for the park was purchased with the recreational fees charged on all new recorded subdivision lots. Harnett County plans to build at least one park for each of its thirteen townships, with the Anderson Creek Park being the first.

The majority of the military population in the county lives in the southern and western sections close to Fort Bragg. This population does use some use of the public recreation programs, but the extent of this use cannot be determined. The southern and western parts of the county are generally lacking in overall infrastructure and programs. A large population influx would put stress on the county’s capabilities.

**d. Culture and Arts**

Harnett County is home to unique cultural attractions and festivals that often attract visitors from neighboring counties. Many of these—the Battle of Averasboro site, for example—have historical ties. A sampling of the major attractions in Harnett County includes:

- *Festivals:* North Carolina Cotton, Denim Days, Farmer’s Day
- *Arts and Theatre:* Campbell University, Stewart Theatre
- *Museums and Historic Attractions:* General William C. Lee Airborne Museum, Averasboro Civil War Battlefield and Museum

Festivals are the largest attractions in Harnett County. The North Carolina Cotton Festival pays homage to the region’s past, and draws crowds of up to 10,000. Denim Days in Erwin celebrates the town’s reputation as the “Denim Capital of the World.” The town of Coats holds the annual Farmer’s Day celebration, the oldest of its kind in the state, which allows more than 10,000 people the opportunity to experience the region’s agricultural heritage. The Battle of Averasboro re-enactment also draws significant crowds to Godwin. Many of the historic sites are in more rural sections, while the museums and theatre productions can be found primarily in the major municipalities. Other Harnett County cultural attractions are distributed throughout the county.

Residents of Harnett County also tend to be drawn to Cumberland County for arts and cultural events and attractions. This trend is expected to continue with the incoming population, especially as a result of the improved access to Fayetteville via I-295.

## 2. Future Needs

Harnett County offers a ample hospitality and cultural opportunities for its residents; lodging, restaurants, meeting space, parks and recreational facilities, and cultural activities are generally only short drive away. Overall, the expected military expansion is not expected to significantly impact most of these resources.

A limited supply of lodging and food and beverage establishments are available in Harnett County. All but one of the county's hotels are located in Dunn. Because no direct, high-speed access exists between Dunn and Fort Bragg, demand for lodging in the county is driven more by the presence of Interstate 95 than it is by Fort Bragg. This situation will be significantly improved with the proposed extension of I-295 to the All-American Freeway.

Meeting space is generally limited, with availability concentrated in Dunn. A few large venues exist in Dunn, though their facilities and support amenities are minimal. The Shrine Building, a converted Piggly Wiggly supermarket, is the largest venue (offering space for up to 999 guests).

A modest network of parks and recreational facilities and programs are offered throughout Harnett County. An important recreational amenity is access to the Cape Fear River, which traverses the county from northwest to southeast.

A modest array of programs and attractions are offered for county residents and non-residents, alike. Annual festivals are the biggest attractions in the county, with up to 10,000 participants and visitors attending certain events each year. Many local residents also rely on neighboring Cumberland County for additional culture and arts programming.

## 3. Gaps

While Fort Bragg's demand for lodging will probably continue to be accommodated on the installation or in off-post hotels in Cumberland County, there may be times when turn-away demand exceeds Cumberland County's hotel capacity. Given the anticipated access improvements created by the extension of I-295, it is

likely that some visitors to Fort Bragg may also seek accommodations in Dunn. While it is not expected that the increased military demand will warrant a new hotel per se, this demand—in combination with increased demand from other mainstay sources, such as I-95 travelers—might encourage additional hotel development near the interstate.

In addition, 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, one that will be exacerbated, however minimally, by the incoming population associated with the military-related growth.

## 4. Recommended Actions

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### **Important Action 1: Plan for the I-295 Extension**

*Description:* The I-295 Extension will likely increase the local demand for lodging. Visitors to Fort Bragg in combination with I-95 travelers might increase the need for a new hotel in Dunn in the vicinity of the interstate. As the I-295 Extension moves forward, local hotel and economic development officials are encouraged to work with the area's meeting space providers to encourage group business whenever possible and to watch the impact of the Extension on local lodging demand.

*Responsible Parties:* Local hotels and county economic development officials should cooperate to attract group business to the area and monitor local lodging demand to determine impact of the I-297 extension.

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### **Important Action 2: Solicit additional operational funds for county Parks, Recreation, and Cultural Resources organizations**

*Description:* Although the need for additional facilities is not suggested as a result of military growth, the operating resources for existing programs are limited. Additional funding sources, available from the entities established to assist BRAC-impacted communities, should be explored.

*Responsible parties:* The Harnett County Parks and Recreation Department should continue to aggressively pursue additional funding for program operations.

## **I. Appendix A -Harnett County Residential Growth as of November 2007**

The Overhills High School cluster (southwest of the county defined roughly by NC 210 south of Loop Rd. at the east, NC 87 south of Buffalo Lake Rd. at the west, and the Anderson Creek Golf Club at the north) has the highest number of undeveloped parcels in existing subdivisions with 1,810 lots in the South Harnett Elementary/Anderson Creek Primary attendance area (Nursery Rd, Ander Creek School Rd., Ray Rd., and Overhills Rd.).

The Highland Elementary School attendance area hosts the largest planned subdivision, Lexington Plantation, with 5,341 planned housing units (south of NC 87/24 and Nursery Rd junction). With the exception of a few developments such as Anderson Creek, Carolina Lakes, and Lexington Plantation, the residential developments in this area are currently targeted to people who work in Cumberland County, but are attracted to the lower housing prices, rural living, and high quality schools available in Harnett County. This area has the highest Student Generation Rate per 100 subdivision lots.

Residential developments in the Harnett Central High School cluster (Lillington which is south of the Cape Fear River, Angier which is north of the Cape Fear River, and the northern most Harnett County along Hwy 401), especially the Lafayette Elementary attendance area (along Hwy 401 and NC 42), are attracting people who work in Wake County. Few new developments along US 401 and near NC 42 close to the Wake County line are building houses in the high \$200,000 to \$300,000 range.

Angier Elementary/North Harnett Primary attendance area has a moderate amount of undeveloped parcels (along NC 210 north of the Cape Fear River up to town of Angier), but has the second highest Student Generation Rate per 100 subdivision lots. This area attracts people who work both in Wake and Harnett counties.

The Lillington-Shawtown attendance area (town of Lillington, south of Angier and north of Overhills high school) does not have many vacant lots in existing subdivisions, but is very active in constructing new

residential developments. Both Vandercroft Farm off NC 210 south of the town and Spring Hill off NC 27 southwest of the town are two examples of new residential developments.

The Benhaven Elementary attendance area in the West Harnett High School cluster currently does not have great number of subdivisions, but there are nine planned subdivisions south of NC 27 and along NC 87 toward Lee County area that may present a challenge to the already congested schools in that area.

A. Appendix B: Out-of-Capacity Analysis for Harnett County Schools

## Harnett County Schools Out-of-Capacity Analysis (elementary schools, K-5)

**Elementary**

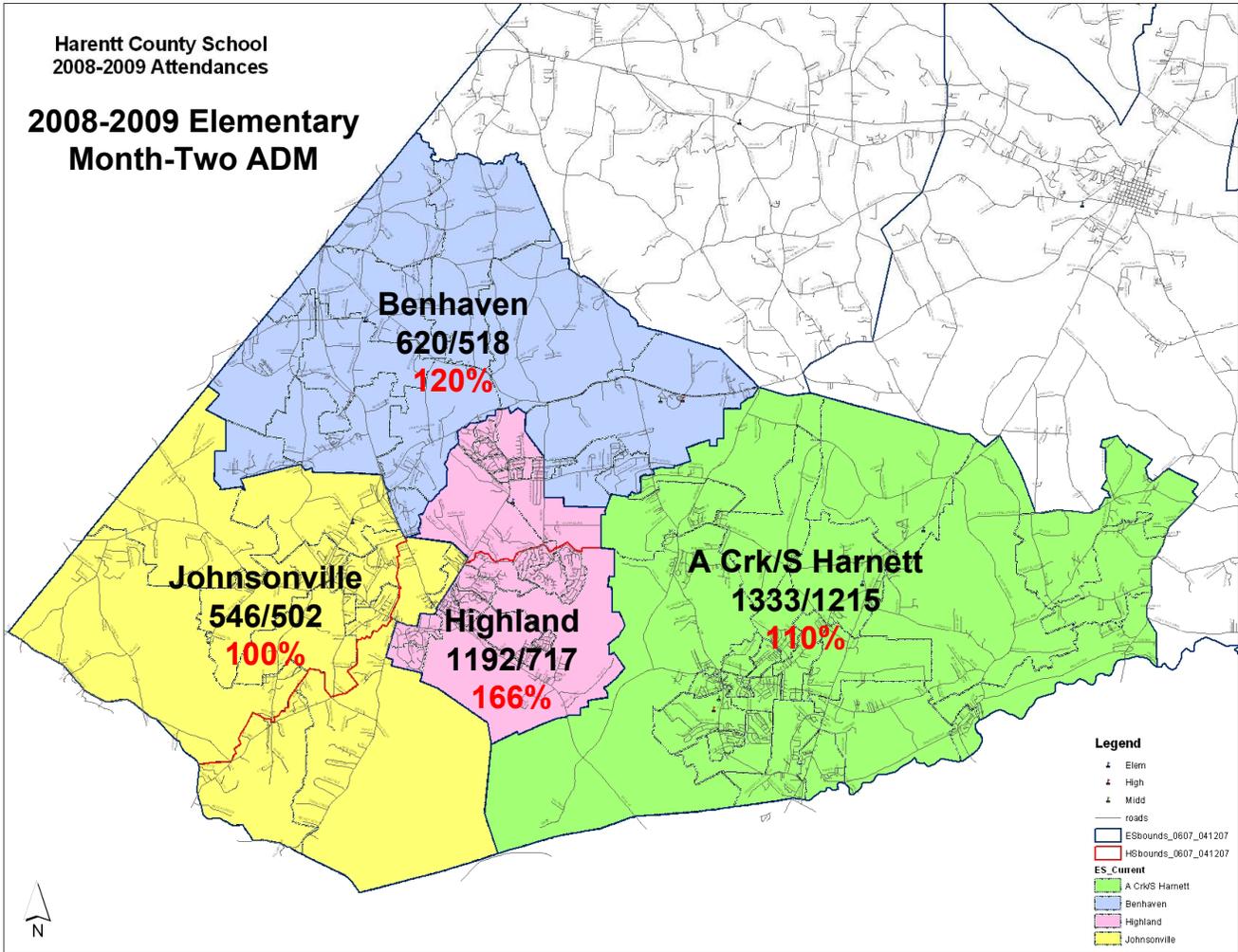
Anderson Ck/S. Harnett P.  
 Benhaven Elem  
 Highland Elem  
 Johnsonville Elem  
 Overhills Elem (2009)

Capacities	Projected Month-Two ADM					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1215	1333	989	1019	1066	1086	1139
518	620	475	489	512	521	547
717	1192	971	1000	1047	1066	1119
502	504	682	702	735	749	786
750		736	758	794	808	848
<b>Totals</b>	<b>3702</b>	<b>3649</b>	<b>3853</b>	<b>3969</b>	<b>4230</b>	<b>4439</b>

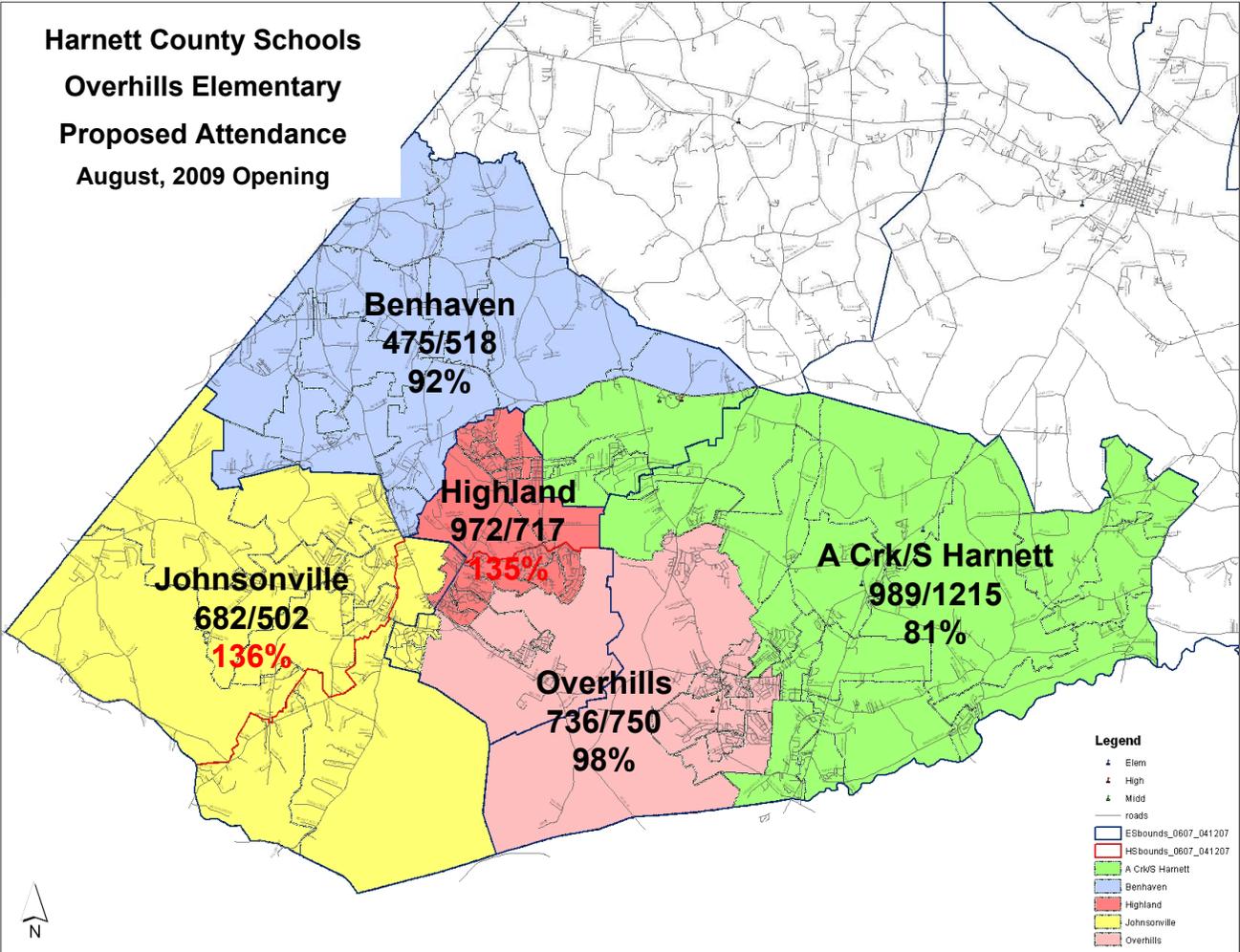
*Capacity  
Gap 737*

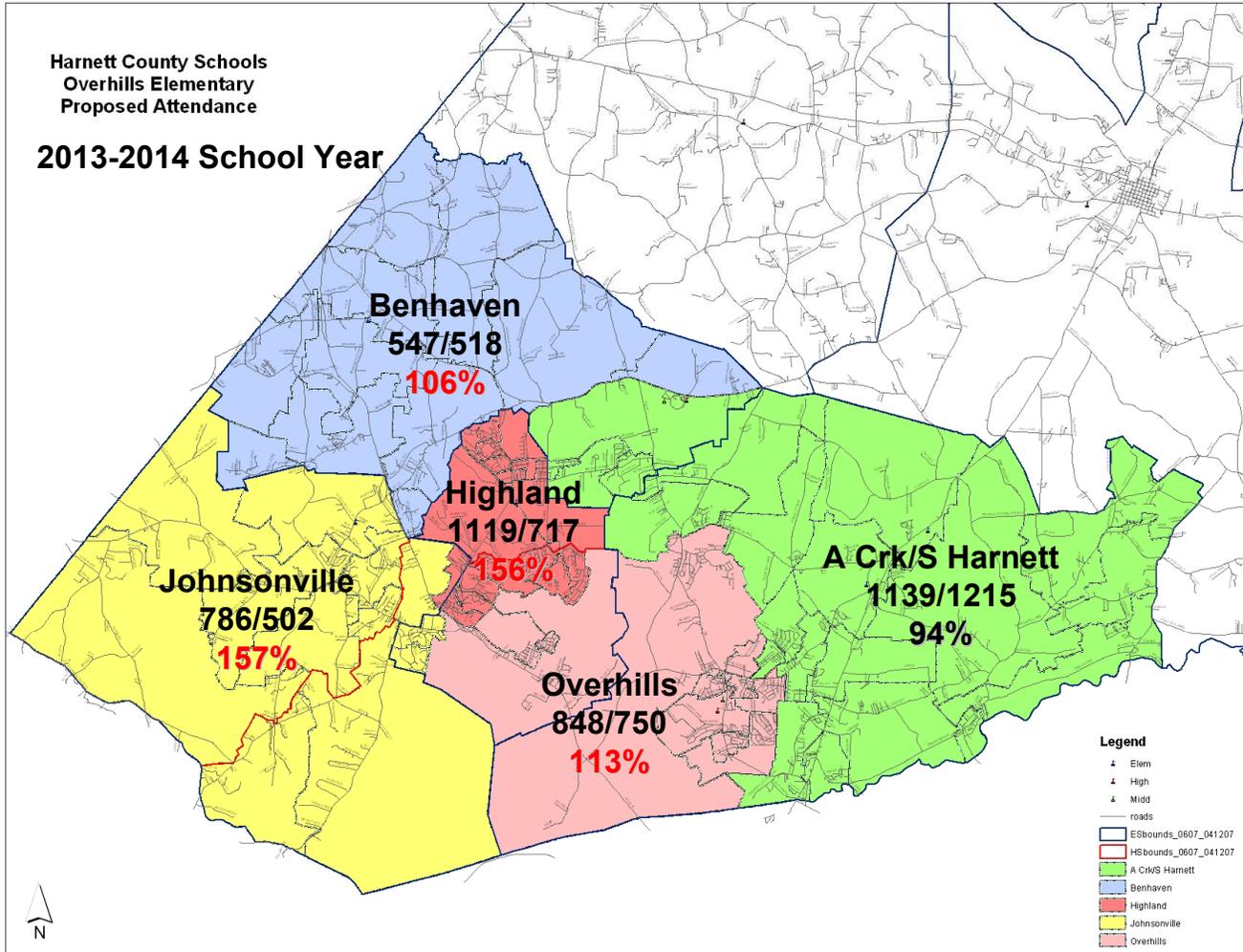
Anderson Ck/S. Harnett P.  
 Benhaven Elem  
 Highland Elem  
 Johnsonville Elem  
 Overhills Elem (2009)

Capacities	Capacity Utilization					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1215	110%	81%	84%	88%	89%	94%
518	120%	92%	94%	99%	101%	106%
717	166%	135%	139%	146%	149%	156%
502	100%	136%	140%	147%	149%	157%
750		98%	101%	106%	108%	113%



**Harnett County Schools  
Overhills Elementary  
Proposed Attendance  
August, 2009 Opening**

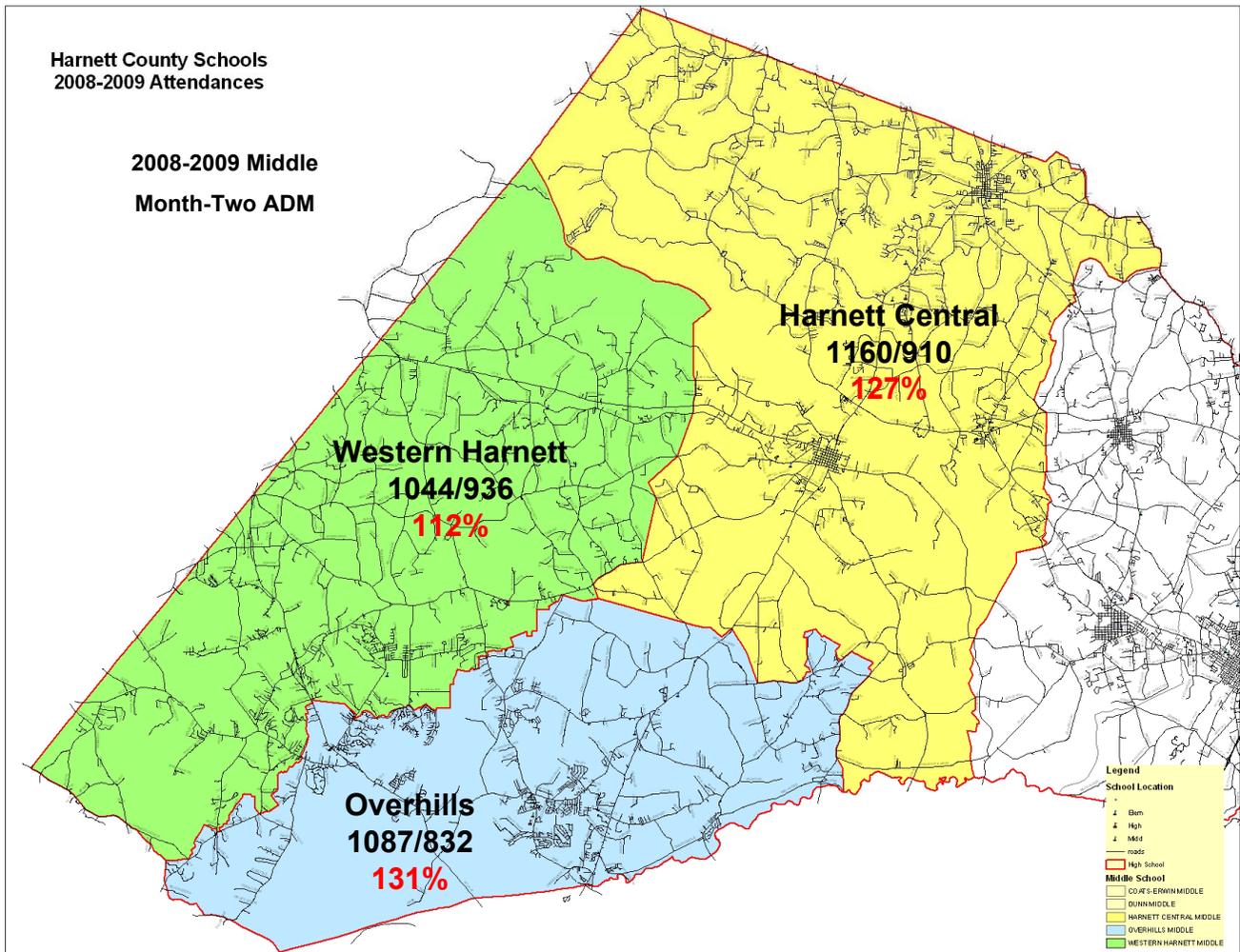




## Harnett County Schools Out-of-Capacity Analysis (middle schools, 6-8)

	Capacities	Projected Month-Two ADM					
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Middle</b>							
Harnett Central Midd	910	1160	1199	1222	1274	1360	1392
Overhills Midd	832	1087	1157	1193	1272	1415	1467
West Harnett Midd	936	1044	1086	1108	1155	1241	1272
<b>Totals</b>	<b>2678</b>	<b>3290</b>	<b>3441</b>	<b>3523</b>	<b>3701</b>	<b>4016</b>	<b>4131</b>
						<i>Capacity Gap</i>	<b>1453</b>

	Capacities	Capacity Utilization					
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Harnett Central Midd	910	127%	132%	134%	140%	149%	153%
Overhills Midd	832	131%	139%	143%	153%	170%	176%
West Harnett Midd	936	112%	116%	118%	123%	133%	136%



## Harnett County Schools Out-of-Capacity Analysis (high schools, 9-12)

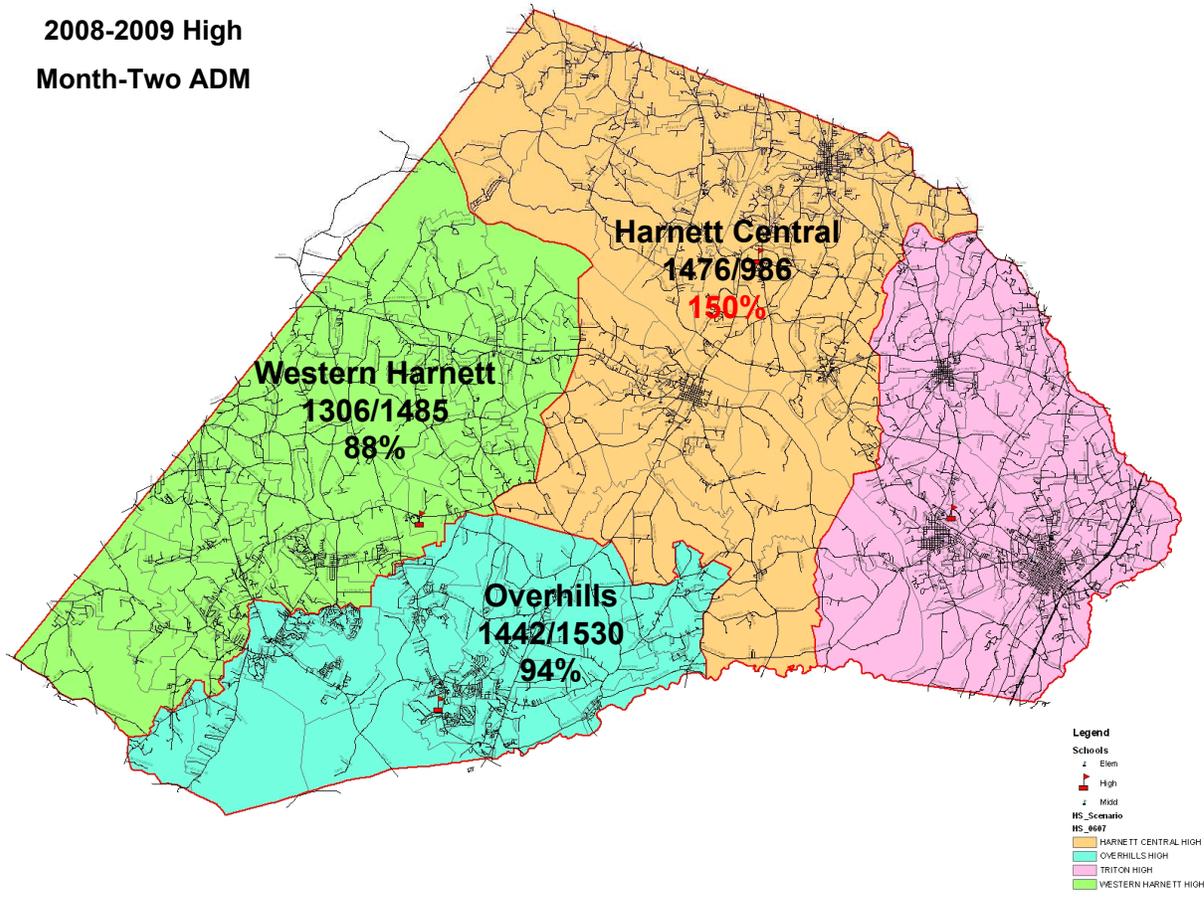
	Capacities	Projected Month-Two ADM					
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>High</b>							
Harnett Central High	986	1476	1482	1513	1545	1587	1634
Overhills High	1530	1442	1498	1610	1718	1850	1973
West Harnett High	1485	1306	1317	1353	1388	1438	1496
<b>Totals</b>	<b>4001</b>	<b>4224</b>	<b>4297</b>	<b>4476</b>	<b>4650</b>	<b>4875</b>	<b>5103</b>

*Capacity  
Gap            1102*

	Capacities	Capacity Utilization					
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Harnett Central High	986	150%	150%	153%	157%	161%	166%
Overhills High	1530	94%	98%	105%	112%	121%	129%
West Harnett High	1485	88%	89%	91%	93%	97%	101%

Harnett County Schools  
2008-2009 Attendances

2008-2009 High  
Month-Two ADM



Harnett County Schools  
2008-2009 Attendances

2013-2014 School Year

