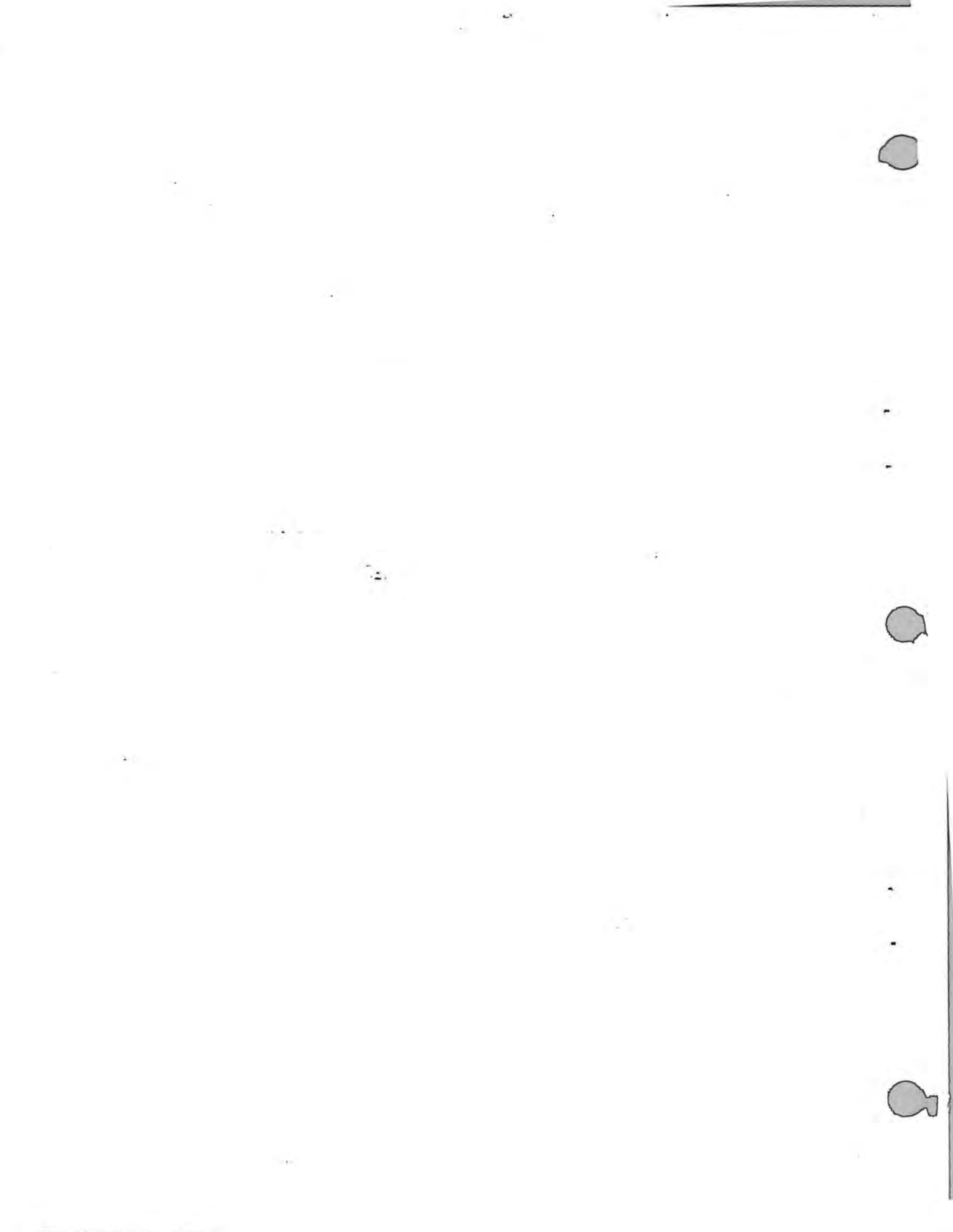


REPORT  
ON THE  
CITY OF PETERSBURG—COUNTY OF PRINCE GEORGE  
AND  
CITY OF HOPEWELL—COUNTY OF PRINCE GEORGE  
ANNEXATION ACTIONS



COMMISSION ON LOCAL GOVERNMENT  
COMMONWEALTH OF VIRGINIA



REPORT ON THE  
CITY OF PETERSBURG - COUNTY OF PRINCE GEORGE  
AND  
CITY OF HOPEWELL - COUNTY OF PRINCE GEORGE ANNEXATION ACTIONS



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CITY OF PETERSBURG - PRINCE GEORGE COUNTY  
AND  
CITY OF HOPEWELL - PRINCE GEORGE COUNTY  
ANNEXATION ACTIONS

PROCEEDINGS OF THE COMMISSION

On April 4, 1985 the City of Petersburg filed notice with the Commission on Local Government, pursuant to the provisions of Section 15.1-945.7(A) of the Code of Virginia, of its intent to petition for the annexation of 23.36 square miles of territory in Prince George County. Consistent with the Commission's Rules of Procedure, the City's notice was accompanied with data and materials supporting the annexation action.<sup>1</sup> Further, in accordance with statutory requirements, the City concurrently gave notice of its proposed annexation to 12 other political subdivisions with which it was contiguous or with which it shared functions, revenues, or tax sources.<sup>2</sup> The City's notice to the Commission also invoked Section 15.1-945.7(E) of the Code of Virginia and requested the Commission's designation of an independent mediator to assist the City in its efforts to negotiate a settlement of the annexation action with Prince George County.

On May 13, 1985 the Commission met with representatives of the City of Petersburg and Prince George County for purposes of making preliminary arrangements for its formal review of the City's annexation action and responding to the City's request for mediation assistance. At that meeting, the Commission established a schedule which called for oral presentations and a public hearing in August 1986 and for the issuance of a report in November 1986. The

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<sup>1</sup>City of Petersburg, City of Petersburg Annexation Notice and Supporting Data, 3 Vols. (hereinafter cited as Petersburg Annexation Notice), April 1985.

<sup>2</sup>Sec. 15.1-945.7 (A), Code of Va.

Commission also, with the concurrence of the City and the County, designated Dr. Roger Richman of Old Dominion University to assist the parties in their negotiations conducted under the provisions of Section 15.1-945.7(E) of the Code of Virginia. The two jurisdictions agreed that the City of Hopewell would be accepted as a participant in their negotiations.<sup>3</sup>

On July 23, 1985 the City of Hopewell filed notice with this Commission, pursuant to the provisions of Section 15.1-945.7(A) of the Code of Virginia, of its intention to petition for the annexation of 16.6 square miles of territory in Prince George County, with a portion of that territory included within the area sought for annexation by the City of Petersburg. Consistent with the Commission's Rules of Procedure, the City's notice was accompanied by data and materials supporting the proposed annexation.<sup>4</sup> In accordance with statutory requirements, the City concurrently gave notice of its annexation action to 11 other local governments with which it was contiguous or with which it shared functions, revenues, or tax sources. Hopewell's notice also invoked Section 15.1-945.7(E) of the Code of Virginia and requested the Commission's designation of an independent mediator to assist it in negotiations with the other parties immediately affected by its annexation action. As a result of the City of Hopewell's notice of proposed annexation, and pursuant to a request from Prince George County for a delay in the Commission's administrative proceedings due to difficulty which the County had encountered in compiling certain information relative to the Fort Lee military installation, the Commission notified the three jurisdictions on July 25, 1985 that its various proceedings relative to the Petersburg annexation actions scheduled for August 1986 would be postponed.

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<sup>3</sup>On May 9, 1985 the City of Hopewell notified the Commission of its desire to be a party to the City of Petersburg annexation action.

<sup>4</sup>City of Hopewell, City of Hopewell Annexation Exhibits: Statistical Data & Descriptions (hereinafter cited as Hopewell Annexation Exhibits: Data), July 1985.

On August 14, 1985 the Commission met with representatives of the three jurisdictions for purposes of establishing a revised schedule for its review of the two annexation actions and addressing other administrative concerns relative to those issues. At that meeting, the Commission determined that it would tour relevant areas and facilities affected by the annexation actions on October 26, 1985, conduct its proceedings on the Petersburg annexation action during the following week, hold its hearings on the Hopewell annexation initiative in November 1985, and issue a consolidated report on both annexation issues in February 1986.<sup>5</sup>

Adhering to its adopted schedule, the Commission received oral testimony regarding the proposed City of Petersburg annexation action on October 28-31, 1985 and on the City of Hopewell annexation initiative on November 13-15, 1985.<sup>6</sup> In addition to its receipt and consideration of materials and testimony from the City of Petersburg, the City of Hopewell, and Prince George County, the Commission also solicited comments on the annexation actions from other potentially affected local governments and from the public. Each locality receiving notice from the City of Petersburg or from the City of Hopewell regarding their respective annexation actions was invited by the Commission to submit testimony for its consideration. Further, the Commission held separate public hearings, which were advertised in accordance with the requirements of Section 15.1-945.7(B) of the Code of Virginia, in order to avail itself of citizen comment on the issues. The Commission's public hearing on the Petersburg annexation action, which was held at the Prince George County High School on the evening of October 29, 1985, was attended by approximately 4,000 persons and produced testimony from 91 individuals. The Commission's

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<sup>5</sup>The report data was extended several times by agreement of the parties and postponed an additional period at request of the Commission.

<sup>6</sup>Due to the interrelationship of the two annexation actions, all three jurisdictions were represented and participated in both sets of hearings. It should be noted that, despite the expiration of his

public hearing on the Hopewell annexation initiative, which was held at the Prince George County High School on the evening of November 14, 1985, was attended by approximately 2,500 persons and generated testimony from 72 persons. In order to permit receipt of additional citizen comment, the Commission agreed to keep open its record for written submissions from the public for a 30-day period following each public hearing.

#### SCOPE OF REVIEW

The law establishing the Commission Local Government states that the General Assembly's fundamental purpose in creating such a body was to provide a mechanism to "help ensure that all of the [the Commonwealth's] counties, cities, and towns are maintained as viable communities in which their citizens can live."<sup>7</sup> Guided by this expression of fundamental legislative intent, the Commission is charged with reviewing a variety of local boundary change and governmental transition issues before such issues may be presented to the courts for ultimate disposition. In undertaking such reviews the Commission is required to "investigate, analyze, and make findings of fact, as directed by law, as to the probable effect on the people" residing in the areas affected by the proposed action.<sup>8</sup> While the Code of Virginia directs that the Commission's findings and recommendations be based upon the criteria and standards prescribed by law for the disposition of the issue under consideration, the Commission is also cognizant of the fact that its analyses must be guided by the legislatively decreed concern for the preservation of the viability of

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term of office in January 1986, Mr. Hensley is a signatory to this report under the authority of Sec. 15.1-945.2:1 of the Code of Virginia.

<sup>7</sup>Sec. 15.1-945.1, Code of Va.

<sup>8</sup>Sec. 15.1-945.3, Code of Va.

all the Commonwealth's localities.<sup>9</sup>

In this report the Commission will review concurrently annexation actions initiated by the City of Petersburg and the City of Hopewell. The Commission's determination to review the two issues concurrently rests upon the fact that the annexation actions affect the same County and, to a degree, the same area within that County.

In the analysis which follows the Commission has endeavored to apply its collective experience in local governmental affairs and administration and to leave questions of law for appropriate resolution in other forums. We trust that this report will be of assistance to the citizens and elected leadership of the affected jurisdictions and to the Commonwealth generally with respect to the protection and preservation of the viability of its local governments.

#### GENERAL CHARACTERISTICS OF THE LOCALITIES, AND THE AREAS PROPOSED FOR ANNEXATION

##### CITY OF PETERSBURG

The City of Petersburg is located south of the Appomattox River approximately 20 miles from the Commonwealth's capital city. A community was first established on the present-day site of Petersburg as early as 1646. That community was incorporated as a town in 1748, and that municipality became one of Virginia's cities in 1850.<sup>10</sup> The City of Petersburg has grown over the years through a series of annexations to its present size of 23.09 square miles.<sup>11</sup> The City's last major annexation occurred in 1972, when 14.12 square miles of

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<sup>9</sup>See Sec. 15.1-945.7(B), Code of Va.

<sup>10</sup>Petersburg Annexation Notice, Vol. I, p. 5-1; and Chester W. Bain, "A Body Incorporate": The Evolution of City - County Separation in Virginia (Charlottesville, Va.: The University Press of Virginia, 1967), Appendix A.

<sup>11</sup>Petersburg Annexation Notice, Vol. I, p. 5-4. See Appendix A for a statistical profile of the City of Petersburg, the City of Hopewell, Prince George County, and the areas proposed for annexation.

territory, containing 8,021 persons, were added to its jurisdiction.<sup>12</sup>

In terms of population, U. S. Bureau of the Census data indicate that between 1970 and 1980 the City's populace increased from 36,103 to 41,055 persons, or by 13.8%.<sup>13</sup> This population growth, however, was largely the result of the City's 1972 annexation. It is significant to note that 1984 population estimates placed the City's populace at 40,800 persons, a decline of 0.6% since the preceding decennial census.<sup>14</sup> Based on its 1984 estimated population and current land area, the City has a population density of 1,767 persons per square mile.

With respect to the nature of its population, the evidence indicates that the City's populace is older and less affluent than that of the State as a whole. Data reveal that as of 1980 the median age of Petersburg residents was 30.2 years, or slightly greater than that of the State overall (29.8 years).<sup>15</sup> Further, the percentage of the City's 1980 population age 65 and over was 11.6%, exceeding the comparable figure for the State generally (9.5%).<sup>16</sup> In terms of income, State Department of Taxation data disclose that as of 1984 the adjusted gross income (AGI) per capita in Petersburg was \$6,731, or only 70.8% of the comparable statistic for the Commonwealth as a whole.<sup>17</sup> Alternatively, the median family income in Petersburg in

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<sup>12</sup>Ibid., pp. 5-14-15.

<sup>13</sup>U. S. Department of Commerce, Bureau of the Census, 1980 Census of Populations, Number of Inhabitants, Virginia, Table 2.

<sup>14</sup>Julia H. Martin and David W. Sheatsley, Estimates of the Population of Virginia Counties and Cities: 1983 (Final) and 1984 (Provisional). (Charlottesville: Tayloe Murphy Institute, University of Virginia, 1985).

<sup>15</sup>U. S. Department of Commerce, Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Virginia, Tables 62, 171.

<sup>16</sup>Ibid.

<sup>17</sup>John L. Knapp and Robert W. Cox, Distribution of Virginia Adjusted Gross Income by Income Class and Locality, 1984

1983 was stated to be \$21,533, or 82% of comparable figure for the State overall (\$26,153).<sup>18</sup>

In regard to the nature of its present development, 1980 land use data for the City of Petersburg reveal that 20.6% of the City's total area is devoted to residential development, 2.7% is engaged in commercial enterprise, 4.0% is utilized for industrial activity, 15.3% is consumed by streets, railroads, and bodies of water, 17.6% is committed to public or semi-public usage, with 39.8% (5,949 acres) remaining vacant.<sup>19</sup> Of the total vacant land in the City, however, 914 acres are located in the floodplain or on slopes in excess of 15%.<sup>20</sup> Accordingly, based on 1980 land use statistics, the City retains 5,035 acres of vacant property, or 33.7% of its total area, free from major environmental constraints affecting its development potential.

The City of Petersburg has served, and continues to serve, a prominent role in the corporate life of its general area. The City's governmental, financial, commercial, medical, and other facilities serve residents of the general region. Moreover, while employment opportunities in the City have been reduced significantly over the

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(Charlottesville: Tayloe Murphy Institute, University of Virginia, 1985). It should be noted that the "adjusted gross income" (AGI) statistic is derived from State income tax returns, and, thus, the term does not include certain forms of nontaxable personal income. See the definition of AGI given in Appendix D, n. 2.

<sup>18</sup>John L. Knapp and Philip J. Grossman, Projected 1983 Median Family and Median Household Income in Virginia's Counties, Cities, MSAs, and Planning Districts (Charlottesville: Tayloe Murphy Institute, University of Virginia, 1983). The income concept used in this report encompasses all forms of money income except capital gains, but it excludes nonmonetary income such as net imputed rent from owner-occupied houses and the value of food stamps.

<sup>19</sup>Petersburg Annexation Notice, Vol. I, p. 5-10.

<sup>20</sup>G. H. Gromel, Jr., Special Counsel, City of Petersburg, letter to staff of Commission on Local Government, Feb. 18, 1986.

past decade (with the total number of nonagricultural wage and salary employment positions in Petersburg decreasing between 1975 and 1985 from 19,344 to 17,073 positions), the City remains the site of employment for many nonresidents.<sup>21</sup> Indeed, 1980 studies disclosed that 12,271 persons commuted to Petersburg from outlying jurisdictions for their employment, with 2,032 of the total coming from Prince George County.<sup>22</sup> Although it is reasonable to infer that recent economic events have further constricted employment opportunities in Petersburg, the City's role in the area's general economy remains significant.<sup>23</sup>

#### CITY OF HOPEWELL

As in the case of its neighboring municipality, Hopewell can trace its origin to early colonial days, with a settlement in the area dating from 1635.<sup>24</sup> Hopewell became one of the Commonwealth's independent cities in 1916 as a result of the incorporation of previously unincorporated territory. The City has grown since its founding to its present size of 11.3 square miles as a consequence of three annexations.<sup>25</sup> Hopewell's last annexation, which occurred in 1969,

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<sup>21</sup>Virginia Employment Commission, Population and Labor Force Data, 1975; and Virginia Employment Commission, Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

<sup>22</sup>Michael A. Spar, Transportation and Commuting in Virginia, 1980 (Charlottesville: Tayloe Murphy Institute, University of Virginia, 1984). This study also reported that, as of 1980, 8,358 Petersburg residents commuted to other jurisdictions for their employment.

<sup>23</sup>The effect of the closing of the Brown & Williamson Tobacco Corporation's manufacturing facility is not fully reflected in the 1984 employment data. Since 1984 approximately 1,300 persons have lost their employment as a result of the closing of that cigarette manufacturing facility. (Virginia Employment Commission, Special Area By Industry Listing For Quarter 1-85, Petersburg.)

<sup>24</sup>Hopewell Annexation Exhibits: Data, p. 15.

<sup>25</sup>Ibid., p. 17. All three annexations were uncontested by the County.

brought 3.01 square miles of territory and 2,158 persons within the boundaries of the municipality.<sup>26</sup>

Despite its 1969 annexation, demographic data reveal that the City experienced no population growth during the decade which followed. U. S. Bureau of the Census statistics indicate that between 1970 and 1980 the City's population actually decreased from 23,471 to 23,397 persons, or by 0.3%.<sup>27</sup> It is relevant to note, however, that 1984 population estimates place Hopewell's population at 24,200 persons, an increase of 3.4% since the preceding decennial census.<sup>28</sup> Based on its 1984 estimated population and its land area of 11.3 square miles, the City has a population density of 2,142 persons per square mile.

With respect to the nature of its population, the evidence indicates that Hopewell's populace is similar in age but somewhat poorer than that of the State generally. Data reveal that, as of 1980, the median age of City residents was 29.9 years, a figure virtually identical to that of the State overall (29.8 years).<sup>29</sup> In terms of elderly component, 1980 data disclose that, as of that date, 10.9% of Hopewell's total population was age 65 and over, a statistic slightly in excess of that for the State generally (9.5%).<sup>30</sup> In regard to income, State Department of Taxation data reveal that, as of 1984, per capita AGI in the City was \$7,600, or only 80.0% of the comparable

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<sup>26</sup>Ibid. See Appendix A.

<sup>27</sup>1980 Census of Population, Number of Inhabitants, Virginia, Table 2.

<sup>28</sup>Estimates of the Population of Virginia Counties and Cities: 1983 (Final) and 1984 (Provisional).

<sup>29</sup>1980 Census of Population, General and Social and Economic Characteristics, Virginia, Table 62, 171.

<sup>30</sup>Ibid.

figure for the Commonwealth generally (\$9,513).<sup>31</sup> Further, the median family income in Hopewell in 1983 was calculated to be \$23,998, or 92% of that for the State overall (\$26,153).<sup>32</sup>

With respect to the nature of its current development, 1984 land use data reveal that 32.3% of Hopewell's total area is devoted to residential development, 3.1% is engaged in commercial enterprise, 13.7% is utilized for industrial activity, 8.6% is committed to public or semi-public usage, 18.9% is consumed by streets, railroads, or bodies of water, with 23.4% (1,692 acres) remaining vacant.<sup>33</sup> Of this total vacant land, however, the City has advised that approximately 850 acres are located in the floodplain, on slopes in excess of 15%, or on sites owned by adjacent industry and held for its exclusive use.<sup>34</sup> Further, the City has asserted that 127 acres of its vacant property are comprised of small and isolated parcels and, accordingly, are severely limited in their development potential.<sup>35</sup> Exclusive of such property, Hopewell retains 715 acres, or 9.9% of its total area, free of major environmental constraints and available for general development.

As in the case of Petersburg, the City of Hopewell is a focal point of the economic and social life of the general area. Its various medical, professional, and retail facilities serve residents

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<sup>31</sup>Distribution of Virginia Adjusted Gross Income by Income Class and Locality, 1984.

<sup>32</sup>Projected 1983 Median Family and Median Household Income in Virginia's Counties, Cities, MSAs, and Planning Districts.

<sup>33</sup>Hopewell Annexation Exhibits: Data, p. 30.

<sup>34</sup>The local managers of the four major industries in Hopewell have indicated that the vacant land adjacent to their respective plant sites has been reserved for future expansion of their operations. (Charles S. Perry, Special Counsel, City of Hopewell, letter to staff of Commission on Local Government, Jan. 2, 1986.)

<sup>35</sup>Hopewell Annexation Exhibits: Data, p. 31.

of the general environs. Moreover, as of 1985 the City of Hopewell contained within its corporate boundaries 8,085 positions of nonagricultural wage and salary employment, with over one-fourth of the total (2,812 positions) being in the manufacturing sector.<sup>36</sup> Not surprisingly, Hopewell provides employment opportunity for many nonresidents. In that regard, commuting data for 1980 disclosed that 6,578 persons commuted to Hopewell from other jurisdictions for their employment, with 1,541 of those persons being residents of Prince George County.<sup>37</sup>

#### PRINCE GEORGE COUNTY

Prince George County was formed in 1702 from territory formerly a part of Charles City County.<sup>38</sup> Located south of the confluence of the Appomattox and James Rivers, and bounded in part by those water courses, Prince George County has played a prominent role in the history of our Commonwealth.<sup>39</sup> With respect to geographic size, Prince George County is one of the State's smaller counties, having a land area of only 281.3 square miles.<sup>40</sup>

As a result of Petersburg's 1972 annexation, Prince George County experienced a significant population loss between 1970 and 1980, with the number of its residents decreasing during that decade from 29,092

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<sup>36</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

<sup>37</sup>Transportation and Commuting in Virginia, 1980.

<sup>38</sup>J. Devereux Weeks, Dates of Origin, Virginia Counties and Municipalities (Charlottesville: Institute of Government, University of Virginia, 1967.)

<sup>39</sup>See County of Prince George, Defense to City-Initiated Annexation (hereinafter cited as County Defense to Petersburg Annexation), Vol. I, p. 40.

<sup>40</sup>The County's land area is given in Virginia Department of Highways and Transportation, "Area in Square Miles of Virginia's Counties and Incorporated Towns," Dec. 1980. Only 21 of the Commonwealth's 95 counties have a land area less than that of Prince George County.

to 25,733, or by 11.6%.<sup>41</sup> This aggregate population loss, however, obscures an apparent growth in certain segments of the County's populace. Given the fact that 4,629 County residents were annexed by the City of Petersburg in 1972, and since the County experienced an additional loss of 4,254 people as a result of a decrease in the number of persons residing in group quarters (principally at Fort Lee), the County would have experienced a more dramatic population decline during the previous decade had it not benefited from demographic growth in other areas.<sup>42</sup> It is significant to note, however, that 1984 population estimates place the County's population at 25,900 persons, an increase of only 0.7% since the preceding decennial census.<sup>43</sup> Based on its 1984 estimated population and land area of 281.3 square miles, the County has an overall population density of 92 persons per square mile.

With respect to the nature of its population, the evidence indicates that the County's populace is significantly younger (reflecting the impact of military personnel at Fort Lee) than that of the State as a whole. Data reveal that, as of 1980, the median age of County residents was 24.5 years, considerably less than that for the State overall (29.8 years).<sup>44</sup> Moreover, the percentage of the

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<sup>41</sup>1980 Census of Population, Number of Inhabitants, Virginia, Table 2.

<sup>42</sup>Julia H. Martin and Michael A. Spar, Intercensal Estimates and Decennial Census Counts for Virginia Localities, 1790-1980 (Charlottesville: Tayloe Murphy Institute, University of Virginia, Feb. 1983); U. S. Department of Commerce, Bureau of the Census, 1970 Census of Population, Characteristics of Population, Virginia, Table 120; and 1980 Census of Population, General Social and Economic Characteristics, Virginia, Table 173.

<sup>43</sup>Estimates of the Population of Virginia Counties and Cities: 1983 (Final) and 1984 (Provisional). City of Petersburg has estimated that, as of 1984, 9,784 persons resided in barracks or family housing at Fort Lee and that an additional 739 persons resided at the Federal Correctional Institution. (Petersburg Annexation Notice, Vol. I, p. 5-4.)

<sup>44</sup>1980 Census of Population, General Social and Economic

County's population age 65 and over was only 3.7%, a statistic less than half that for the State generally (9.5%).<sup>45</sup>

In terms of income, State Department of Taxation data disclose that, as of 1984, per capita AGI in Prince George County was \$6,108, or only 64.2% of the comparable statistic for the Commonwealth overall (\$9,513).<sup>46</sup> The validity of this statistic as a measure of the relative income of County residents is limited, however, by the fact that many military personnel at Fort Lee do not pay taxes to the State of Virginia, and, thus, the earnings of such personnel are not reflected in the County's AGI. Supporting this point are median family income data suggesting that Prince George County residents receive income paralleling that of State residents generally. Median family income of Prince George County residents in 1983, for example, was calculated to be \$24,220, or 93% of the comparable statistic for the State overall (\$26,153).<sup>47</sup>

In terms of the nature of its development, land use data for 1978 (the latest year for which such information is available) reveal that only approximately 8% of the County's total land area was then committed to residential, commercial, industrial, or public or semi-public uses, with more than half the total of that property being utilized for federal purposes.<sup>48</sup> While recognizing that Prince

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Characteristics, Tables 62, 171. As of 1980, persons between the ages of 18-21 comprised 13.6% of the County's total population, while that age group represented only 8.0% of the State's overall population. (U. S. Department of Commerce, Bureau of the Census, 1980 Census of Population, General Population Characteristics, Virginia, Tables 18, 45.)

<sup>45</sup>1980 Census of Population, General Social and Economic Characteristics, Tables 62, 171.

<sup>46</sup>Distribution of Virginia Adjusted Gross Income by Income Class and Locality, 1984.

<sup>47</sup>Projected 1983 Median Family and Median Household Income in Virginia's Counties, Cities, MSAs, and Planning Districts.

<sup>48</sup>County of Prince George, Prince George County, Virginia, Adopted Comprehensive Plan (hereinafter cited as County Comprehensive

George County has experienced growth since 1978, the evidence suggests that the County remains predominantly rural and undeveloped.

Some measure of the development which has occurred in Prince George County in recent years is reflected by the increase in nonagricultural wage and salary employment within the jurisdiction. Data reveal that between 1975 and 1985 the number of positions of such employment in Prince George County increased from 7,212 to 9,485, or by 31.5%.<sup>49</sup> While the increase in such employment denotes a growth and diversification of its economy, agricultural and forestal operations remain significant components of the County's economic base. As of 1982, there were 191 active farms in Prince George County, collectively, cultivating 47,083 acres of land.<sup>50</sup> Further, according to 1977 data, Prince George County contained 119,660 acres of land classified as commercial forest property.<sup>51</sup> Again, the evidence suggests that Prince George County has experienced a growth and diversification of its economy, but that it remains largely rural and undeveloped.

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Plan), 1978, p. 16. The data indicate that 7,700 acres (12.03 square miles) were owned and utilized by the federal government.

<sup>49</sup>Population and Labor Force Data, 1975; and Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985. Commuting data for 1980 reveal that, as of that date, 1,991 Petersburg residents and 1,068 Hopewell residents commuted to Prince George County for their employment. (Transportation and Commuting in Virginia, 1980.)

<sup>50</sup>U. S. Department of Commerce, Bureau of the Census, 1982 Census of Agriculture, Virginia, Table 1.

<sup>51</sup>Virginia Division of Forestry, Forestry Resource Data, Crater Planning District, 1977, Table 2.

AREA PROPOSED FOR ANNEXATION BY THE CITY OF PETERSBURG

The area proposed for annexation by the City of Petersburg embraces 23.4 square miles of territory and contains, according to the County's estimate, a 1984 population of 13,313 persons, a 1983 schoolage population of 2,229, and 1985 total assessed property values (real estate, public service corporation, personal, and machinery and tools) of \$73.7 million.<sup>52</sup> Thus, the area proposed for annexation by the City of Petersburg encompasses 8.3% of Prince George County's total land area and embraces, assuming the correctness of the County's calculations, 50.2% of its 1984 population, 37.8% of its 1983 schoolage population, and 17.9% of its total 1985 assessed property values. Included within the area proposed for annexation by the City are 12.1 square miles of territory owned by the federal government, with that property currently containing, according to the City's estimate, 10,523 persons.<sup>53</sup> Thus, over one half of the area sought for annexation by Petersburg is federally-owned property, embracing approximately 80% of the total population of the annexation area. These data indicate that federal properties in the area proposed for annexation have a population density of approximately 870 persons per square mile, or three times that of the nonfederal properties within

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<sup>52</sup>Petersburg Annexation Notice, Vol. I, p. 5-4; County Defense to Petersburg Annexation, Vol. I, p. 31; and *ibid.*, Vol. III, Tab 5. The latter volume of materials consists of supplemental exhibits submitted to the Commission during the oral presentations on the Petersburg annexation action in October 1985. It should be noted that the City's estimates of the population and total assessed values in the area proposed for annexation are for 1984 and differ from those of the County. (See Petersburg Annexation Notice, Vol. I, pp. 5-4--5-9.) "Schoolage population" is defined by the Code of Virginia to include all persons age 5 - 19 inclusive, plus handicapped persons of ages 2 - 4 and 20 - 21. (Sec. 22.1-281, Code of Va.) See Appendix B for a map of the area proposed for annexation by the City of Petersburg.

<sup>53</sup>Petersburg Annexation Notice, Vol. I, p. 5-10. Federal properties constitute 51.7% of the area proposed for annexation. Federal properties in the area include the Fort Lee military installation (9.5 square miles), the Federal Correctional Institution (1.8 square miles), and territory belonging to the National Park Service (0.7

that area (289 persons per square mile).<sup>54</sup>

In terms of the nature of the current development of the non-federal properties within the area proposed for annexation by Petersburg, the City has estimated that 13.6% of that property is devoted to residential development, 1.2% is utilized for commercial activity, 15.7% is engaged in industrial activity, with 59.8% (4,313 acres) remaining vacant.<sup>55</sup> With respect to the vacant land, the City has estimated that 1,097 acres are restricted in their development potential by major environmental constraints (e. g., location in floodplain), leaving 3,216 acres, or 44.6% of the total nonfederal properties in the area, vacant and suitable for general development.<sup>56</sup>

Clearly, the most salient feature of the area proposed for annexation by the City of Petersburg is the inclusion therein of prominent federal facilities. As noted previously, the area not only contains the Fort Lee military installation, which houses approximately 11,500 permanent residents and military students, but also the Federal Correctional Institution and portions of the Petersburg National Battlefield.<sup>57</sup> With respect to nonfederal development, the area contains a number of residential concentrations, one major commercial center (consisting of the Lee Plaza Shopping Center and adjacent development near the City of Hopewell), and a limited number of County-owned facilities (e. g., an elementary school and utility lines

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square miles).

<sup>54</sup>The density of population of the nonfederal properties in the area proposed for annexation is based on the City's 1985 estimate of 3,264 residents residing on such property. (Ibid., p. 5-4.)

<sup>55</sup>Ibid., p. 5-10.

<sup>56</sup>Gromel, letter to staff of Commission on Local Government, July 1, 1985.

<sup>57</sup>The Commission has been advised that during federal FY1984-85 (October 1 - September 30) Fort Lee housed 7,694 permanent residents and dependents and 3,892 students. (Colonel James A. Burger, Staff Judge Advocate, Fort Lee, letter to staff of Commission

and appurtenances).<sup>58</sup>

It should be noted here, however, that the area proposed for annexation by Petersburg will be subject to new economic forces as a result of major road improvements which are currently being planned and implemented. Principal among those improvements is the completion of Interstate Highway 295, which parallels for an extended distance the easternmost boundary of the area proposed for annexation. This major thoroughfare may result in the eventual construction of four interchanges and a connection with Interstate Highway 95, all of which would be within, or partly within, the area proposed for annexation.<sup>59</sup> A second major road improvement which will affect the future development of the area is the Temple Avenue extension. This project, which is currently under construction, will connect the Temple Avenue exit on Interstate Highway 95 in Colonial Heights with State Route 36 just west of Hopewell's present corporate limits.<sup>60</sup> This road, when completed, is expected to have a significant impact on commuting patterns in the area. In brief, the various road improvements planned in the general area may reasonably be expected to exert considerable influence on the nature of that area's future development.

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on Local Government, Mar. 10, 1986.) The evidence indicates that, as of 1984, the Federal Correctional Institution contained approximately 739 inmates, correctional personnel, and their dependents. (Petersburg Annexation Notice, Vol. I, p. 5-4.)

<sup>58</sup>County Defense to Petersburg Annexation, Vol. II, Exhs. 4, 6, 13.

<sup>59</sup>Two of the interchanges, those at State Route 36 and at U. S. Route 460, would extend within the existing corporate boundaries of Hopewell and Petersburg respectively.

<sup>60</sup>Petersburg Annexation Notice, Vol. III, Exh. P-20.

AREA PROPOSED FOR ANNEXATION BY THE CITY OF HOPEWELL

The area proposed for annexation by the City of Hopewell encompasses 16.6 square miles of territory and contains, according to the County's estimate, a 1984 population of 3,096 persons, a 1983 schoolage population of 594, and total 1985 assessed property (real estate, public service corporation, personal, and machinery and tools) values of \$57.0 million.<sup>61</sup> Thus, the area proposed for annexation by Hopewell embraces 5.9% of Prince George County's total land area and contains, based on the County's estimates, 12.0% of its 1984 population, 9.8% of its 1983 schoolage population, and 13.9% of its total 1985 assessed property values. As noted previously, the area proposed for annexation by the City of Hopewell includes a significant amount of territory also sought for annexation by the City of Petersburg.<sup>62</sup>

The annexation proposed by Hopewell, as that proposed by Petersburg, embraces a significant amount of federally-owned property. Included within the area sought for annexation by Hopewell are 4.4 square miles of federally-owned properties contained in 1980 a resident population currently estimated at 695 persons.<sup>63</sup> Based on these figures, the population density of the federally-owned proper-

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<sup>61</sup>Hopewell Annexation Exhibits: Data, pp. 18-20; and County of Prince George, Virginia, Defense to Hopewell's Initiated Annexation (hereinafter cited as County Defense to Hopewell Annexation) Oct. 1985, Vol. I, p. 14. It should be noted that the City's estimates of the population and assessed values in the area proposed for annexation differ slightly from those of the County. The area proposed for annexation by Hopewell includes 2.8 square miles of territory covered by the waters of the James River. (Hopewell Annexation Exhibits: Data, p. 36.) See Appendix C for a map of the area proposed for annexation by the City of Hopewell.

<sup>62</sup>Approximately 6.5 square miles of territory proposed for annexation by the City of Hopewell west of its present corporate boundary is included in the area sought for annexation by the City of Petersburg. (Garland L. Page, Jr., Consultant, County of Prince George, letter to staff of Commission on Local Government, Apr. 4, 1986.)

<sup>63</sup>Hopewell Annexation Exhibits: Data, p. 18. All of the resident population on the federally-owned properties are inmates or staff at the Federal Correctional Institution. The Fort Lee properties

ties is 147.7 persons per square mile. Assuming the correctness of the City's 1985 estimate of the population residing on nonfederally-owned property in the area proposed for annexation (2,369), such territory has a population density of 194 persons per square mile.<sup>64</sup> Thus, while the City of Hopewell also includes in its proposed annexation area certain federally-owned properties, such federally-owned properties are less significant in terms of area and population than those sought for incorporation by Petersburg.

In terms of the current utilization of the nonfederally-owned territory within the area proposed for annexation by Hopewell, a survey undertaken by the City in 1985 revealed that 6.1% of such land area is devoted to residential development, 0.5% is committed to commercial enterprise, 0.2% is engaged in industrial activity, 0.5% is utilized for public or semi-public purposes, 2.2% is consumed by streets and railroad rights-of-way, with 47.4% (5,025 acres) remaining vacant.<sup>65</sup> Of this vacant land, however, 360 acres are restricted in their development potential by virtue of location in wet lands, the floodplain, or on slopes in excess of 15%.<sup>66</sup> Thus, the area proposed for annexation contains 4,665 acres, or nearly 7.3 square miles of territory, vacant and suitable for general development.

With respect to the principal development currently in the area proposed for annexation by Hopewell, the area contains the Federal Correctional Institution, portions of the Fort Lee military installation (primarily uninhabited training areas), approximately six resi-

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sought for annexation by Hopewell do not contain any permanent residents.

<sup>64</sup>Ibid.

<sup>65</sup>Ibid., p. 36. In addition, 26.4% (2,800 acres) of the land in the area proposed for annexation is owned by the federal government and 16.7% (1,765 acres) is covered by the waters of the James River.

<sup>66</sup>Ibid.

dential subdivisions, the Lee Plaza Shopping Center and adjacent commercial development along State Route 36, and the Jordan Point Country Club located near the Benjamin Harrison Bridge. While the area contains no public schools or other County administrative facilities, it does contain water and sewer lines and appurtenances.

The area sought for annexation by Hopewell will also be affected by the major road improvements being planned and constructed in the vicinity. Interstate Highway 295, which will parallel the City's current western boundary, includes plans for the possible construction of two interchanges in, or partly within, the area proposed for annexation by Hopewell.<sup>67</sup> Moreover, the Temple Avenue extension from Interstate Highway 95 in Colonial Heights to State Route 36 will also result in improved transit through the area and in a significant confluence of vehicular traffic immediately west of the City's present corporate limits. These various road improvements can be expected to have a significant impact on future development adjacent to the City of Hopewell.

#### STANDARD AND FACTORS FOR ANNEXATION

The standard and factors by which municipal annexations are to be evaluated in this State are set forth principally in Section 15.1-1041 of the Code of Virginia. That section of law directs this Commission, and ultimately the reviewing court, to determine "the necessity for and expediency of annexation." Section 15.1-1041 requires the reviewing entity to consider "the best interests of the people of the county and the city . . . , services to be rendered and needs of the people of the area proposed to be annexed, the best interest of the people in the remaining portion of the county and the best interest of the State in promoting strong and viable units of government." In determining such "necessity" and "expediency," Section 15.1-1041 specifies a number of factors which are to be considered in evaluating the

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<sup>67</sup>See Petersburg Annexation Notice, Vol. III, Exh. P-20. This volume of exhibits consists of a series of maps submitted to the

best interests of the parties and the State. Since the State's annexation statutes establish time intervals between succeeding annexation initiatives by municipalities and limit the frequency with which counties may be confronted with city annexations, analyses of annexation actions in this State must include, in our opinion, more than an examination of current circumstances and conditions, they must incorporate some measured projection of relevant fiscal and demographic factors. The following sections of this report constitute the Commission's endeavor to address these various elements.

### CITY OF PETERSBURG

#### Need of City to Expand Tax Resources

While the evidence indicates that the City of Petersburg has experienced economic growth since 1970, and while it remains a fiscally sound locality, certain data and recent events suggest that the City is confronting a period of growing fiscal difficulty. The City's lethargic growth in real estate and public service corporation values in recent years, its high local tax burden, its loss of several major businesses, as well as development trends in adjacent areas, are bases of concern regarding Petersburg's future. In our judgment, both current circumstances and prospective conditions underscore the City's need to augment its tax resources.

In terms of its real estate and public service corporation properties, the data indicate that between 1970 and 1980 the total true value of such property in the City of Petersburg increased from \$191.0 million to \$637.6 million, or by 233.8%. During the same span of years the true value of such property in Prince George County increased from \$118.7 million to \$375.2 million, or by 216.1%.<sup>68</sup>

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Commission in October 1985. The Interstate Highway 295 - State Route 36 interchange will be constructed partly within the existing City of Hopewell. The interchange proposed at State Route 645 is not included in the State's construction plans at this time.

<sup>68</sup>Virginia Department of Taxation, Estimated True (Full) Value of Locally Taxed Property in the Several Counties and Cities in Virginia - 1970, June, 1971; and Virginia Department of Taxation,

These growth rates, however, were significantly influenced by Petersburg's annexation in 1972 of \$57.8 million in true real estate and public service corporation property values and by the County's loss, at the same time, of \$33.7 million in such values. Perhaps more indicative of the fiscal prospects of the two localities is the increase in real estate and public service corporation values in the two jurisdictions since 1980. Between 1980 and 1984 the true value of such property in the City of Petersburg increased to \$658.0 million, or by 3.2%, while comparable values in the County grew to \$450.3 million, or by 20.0%.<sup>69</sup> By the latter date, the per capita value of such property in the County (\$17,386) slightly exceeded that in the City (\$16,128). Moreover, the City's 1984 real property values do not fully reflect the loss of a major manufacturing enterprise in the City which has now occurred.<sup>70</sup> Thus, in terms of the City's principal source of local tax revenue, the data suggest only a modestly growing revenue base since 1980, with the prospect of future growth diminished by the loss of a major manufacturing entity.

With respect to the City's commercial base, another principal source of local tax revenue, statistics indicate that Petersburg continues to receive the predominant share of the commercial activity in the general area. The data reveal that between 1970 and 1980 the total value of taxable retail sales in the City increased from \$97.5 million to \$206.8 million, or by 112.1%. During the same period of time, the value of such taxable sales in Prince George County increased from \$15.5 million to \$27.2 million, or by 75.5%. It is significant to note that during the previous decade Petersburg's share of the total taxable retail sales in the three jurisdictional area (City of Petersburg - City of Hopewell - Prince George County)

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Virginia Assessment/Sales Ratio Study, 1980, Mar. 1982.

<sup>69</sup>Virginia Assessment/Sales Ratio Study, 1984 (forthcoming).

<sup>70</sup>Between FY1984-85 and FY1985-86 the assessed value of the Brown & Williamson Tobacco Corporation properties in the City decreased from \$12.8 million to \$7.7 million. It might also be noted

increased from 65.4% to 66.2%, while that of Prince George County decreased from 10.4% to 8.7%.<sup>71</sup> Moreover, fiscal statistics for the period from 1980 to 1985 disclose a continuing growth of taxable retail sales in the City of Petersburg. Between 1980 and 1985 the total value of taxable retail sales in the City increased to \$313.5 million, or by 51.6%, while such sales in the County grew to \$37.0 million, or by only 36.0%.<sup>72</sup> Further, between 1980 and 1985, Petersburg's share of the total taxable retail sales in the three jurisdictional area (68.3%) actually increased slightly.<sup>73</sup>

With respect to other measures of Petersburg's fiscal resources, several additional statistical indices should be noted. First, consideration should be given to the City's adjusted gross income (AGI) as reported by Petersburg's residents for State tax purposes. This statistic can be considered a measure of the general affluence of a locality's population which manifests itself in other forms of local

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that the assessed value of the firm's machinery and tools decreased from \$10.8 million to \$0.6 million between 1978 and 1986. (Matthew J. Calvert, Special Counsel, City of Petersburg, letter to staff of Commission on Local Government, Apr. 10, 1986; and Michael R. Packer, City Attorney, City of Petersburg, letter to staff of Commission on Local Government, Apr. 23, 1986.)

<sup>71</sup>Virginia Department of Taxation, Taxable Sales, Quarterly Reports, 1970; and Virginia Department of Taxation, Taxable Sales Annual Report, 1980. The 1972 City of Petersburg annexation affected the growth rates in both Petersburg and Prince George County.

<sup>72</sup>Taxable Sales, Annual Report, 1985. The Commission has noted that the study of Petersburg's fiscal trends recently completed by Peat, Marwick, Mitchell and Co. concluded that the City's growth in retail sales has not matched the increase in the consumer price index (CPI) for goods and services. (Peat, Marwick, Mitchell and Co., "Fiscal Trend: City of Petersburg," June 1984, pp. 3, 8.) The import of this finding is that the City's growth in retail sales is essentially a function of inflation and not increased retail activity. Since the inflationary factors affect the growth in taxable retail sales in each of the jurisdictions under consideration in this report, our comparative analysis is not invalidated.

<sup>73</sup>The closing of the Miller & Rhoads department store at Walnut Hill Plaza shopping center in January 1986 will adversely affect Petersburg's future taxable retail sales.

tax revenue (e. g., personal property taxes). Data disclose that the 1984 per capita AGI in Petersburg (\$6,731) was only 70.8% of the comparable statistic for the State as a whole (\$9,513).<sup>74</sup> Second, a weighted composite index of local fiscal resources utilizing true real estate and public service corporation property values (weighted 0.5%), taxable retail sales (weighted 0.1%), and AGI (weighted 0.4%), when calculated on a per capita basis for 1983, yields a score for Petersburg (\$11,438), only 62.4% of the comparable statistic for the State generally (\$18,337).<sup>75</sup> Third, a study completed by the State's Joint Legislative Audit and Review Commission (JLARC) in 1985 reported that the City of Petersburg, as of 1983, had a local revenue capacity exceeded by 103, or 75%, of the Commonwealth's 136 counties and cities.<sup>76</sup>

Considering fiscal effort, or the extent to which local fiscal resources are utilized for local governmental purposes, the data disclose that residents of the City of Petersburg bear a significantly higher local fiscal burden than do those of Prince George County. Statistics for FY1983-84 reveal that the City of Petersburg raised \$551.98 per capita in local source revenues, a figure more than double that for Prince George County during the same fiscal year (\$227.88).<sup>77</sup> Further, whether local source revenues are measured on

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<sup>74</sup>Distribution of Virginia Adjusted Gross Income by Income Class and Locality 1984.

<sup>75</sup>See Appendix D. The composite index for Prince George County in 1983 was \$10,941, or 59.7% of the Statewide statistic.

<sup>76</sup>Joint Legislative Audit and Review Commission, Local Fiscal Stress and State Aid, House Document No. 4, 1986, Appendix A. The same study revealed that the revenue capacity of Prince George County, as of 1983, was exceeded by all but three of the State's counties and cities. In developing its measure of the revenue capacity of each locality, JLARC applied Statewide average tax rates to the tax resources of each county and city. This concept has been utilized in other studies of the theoretical revenue capacity of American localities.

<sup>77</sup>The FY1983-84 local source revenues per capita figure for the State as a whole was \$559.57. The term "local source revenue" as used in this context is defined in Appendix D.

a per capita basis, or as a percentage of the locality's true real estate and public service corporation property values, total AGI, or a weighted index of local resources (true property values, taxable retail sales, and AGI), the data disclose a degree of fiscal effort in the City of Petersburg generally more than twice that in Prince George County.<sup>78</sup> Further, the disparity in fiscal effort between the two jurisdictions increased between FY1980-81 and FY1983-84. This disparity in fiscal exertion between the two jurisdictions is reflected by the variation in the effective true real property tax rates of the two jurisdictions. In 1984, the last year for which the statistic has been calculated, the effective true tax rate in the City of Petersburg was \$1.42 per \$100 of assessed valuation, or more than twice the rate in Prince George County (\$.68 per \$100 of assessed value).<sup>79</sup> Further, as of 1983 (the latest year for which Statewide data are available) the City of Petersburg had the second highest effective true tax rate of all the State's 136 counties and cities.<sup>80</sup>

There are other demographic and economic factors which bear on the City's need to augment its tax base. Various data indicate that the City of Petersburg has a large concentration of high-cost population. U. S. Bureau of the Census data reveal that, as of 1979, 20.1% of the City's total population had income below the official poverty level, a

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<sup>78</sup>This degree of disparity in fiscal effort does not apply to the measurement of total local source revenues in relation to AGI for FY1980-81 and FY1981-82. See Appendix D.

<sup>79</sup>Virginia Assessment/Sales Ratio Study, 1984 (forthcoming). Prince George County has observed that the City's nominal real property tax rate declined from \$1.70 in 1975 to \$1.55 in 1985. (See County Defense to Petersburg Annexation, Vol. I, p. 47.) The more appropriate index of the level of taxation of real property in a locality is its effective true tax rate, which is determined by multiplying the nominal rate by the ratio of assessed value to the sales prices of property within the jurisdiction as calculated by the State Department of Taxation.

<sup>80</sup>Virginia Assessment/Sales Ratio Study, 1983. The County has contended that if Petersburg increased its motor vehicle license fees,

statistic more than double that in Prince George County (9.5%) and nearly twice that in the State overall (11.8%).<sup>81</sup> More recent statistics disclose a continuing concentration of disadvantaged persons in Petersburg. Statistics published by the Virginia Department of Social Services for September 1985, the latest available, indicate that 18.3% of the City's total population was then participating in the Food Stamp Program, a population component far in excess of that in Prince George County (3.5%) and in the State generally (6.1%).<sup>82</sup> Further, the same statistical publication reveals that, as of September 1985, the City of Petersburg had 1,464 cases of Aid to Dependent Children, an incidence of such dependency nearly ten times that in Prince George County.<sup>83</sup> Furthermore, recent economic conditions in the City of Petersburg do not suggest any improvement in the City's social service burdens. Between February 1985 and February 1986 the unemployment rate in the City of Petersburg increased from 7.5% to 11.8%.<sup>84</sup> By the latter date, Petersburg's unemployment rate

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consumer utility taxes, and personal property tax rate it could substantially reduce its real property tax rate. [Testimony of Walter E. Cox, Consultant, County of Prince George, Proceedings: Annexation Hearing, City of Petersburg and City of Hopewell vs. County of Prince George (hereinafter cited as Proceedings), Oct. 31, 1985, pp. 1237-39.] While this contention may be true, such a shift in tax structure would not alter the fact that the City of Petersburg bears an inordinately high local tax burden, and one substantially in excess of that in Prince George County.

<sup>81</sup>1980 Census of Population, General Social and Economic Characteristics, Virginia, Tables 62, 171.

<sup>82</sup>Virginia Department of Social Services, Public Welfare Statistics, Sep. 1985. The percentage of Petersburg's population participating in the Food Stamp Program was exceeded by that in only four other political subdivisions in Virginia.

<sup>83</sup>Ibid.

<sup>84</sup>Virginia Employment Commission, Labor Force Estimates For The United States, Virginia and Virginia's MSA's, LMA's, Cities and Counties, Feb. 1986.

was the fourth highest among all the Commonwealth's 41 cities.<sup>85</sup>

Finally, in terms of Petersburg's general fiscal health, the study completed by JLARC in 1985 found the City to be one of the Commonwealth's most fiscally stressed localities. Based on consideration of five factors (revenue capacity, change in revenue capacity, tax effort, change in tax effort, and poverty measures), the JLARC study found that, as of 1983, only four of the Commonwealth's 141 counties and cities had a degree of fiscal stress which equaled or exceeded that of the City of Petersburg.<sup>86</sup> In our judgment, the evidence is strong and pervasive that the City of Petersburg has a current need to augment its fiscal resources.<sup>87</sup>

In this annexation action, an analysis of the City of Petersburg's fiscal condition would be incomplete without consideration being given to the various major road improvements which are planned or currently

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<sup>85</sup>In FY1984-85 the City of Petersburg expended \$969,557 in local funds for various social services, while local expenditures for social services in Prince George County the same year totaled \$114,363. (Larry Anderson, Virginia Department of Social Services, Bureau of Fiscal Management, communication with staff of Commission on Local Government, Apr. 10, 1986.)

<sup>86</sup>Local Fiscal Stress and State Aid, Appendix A. In this study JLARC developed four different methods for measuring local fiscal stress. The statistics cited here are based on Method 1. While there is a high degree of convergence in the results generated by the four distinct methods, Method 1 is preferred by JLARC due to the added weight given "change in revenue capacity" and "tax effort" in that calculation. In support of Method 1 JLARC stated:

"The 'change in revenue capacity' and 'level of tax effort' indicators were given added weight in the composite index because of their importance in assessing fiscal position. A local government with a low growth in its tax base faces the immediate stress of having to increase revenue through taxation or having to cut operations or service expenditures. The level of tax effort was weighted more heavily because a local government with high tax effort has little flexibility to increase revenues by raising taxes." (*Ibid.*, p. 23.)

<sup>87</sup>According to Prince George County, the Cities' claims of fiscal distress are subject to challenge on the grounds that the muni-

under development in the general area. These major road improvements include the construction of Interstate Highway 295 with its various interchanges; the Temple Avenue extension, which will eventually provide a four-lane transportation artery connecting the Cities of Hopewell and Colonial Heights; the Wagner Road extension, which will provide a four-lane thoroughfare connecting U. S. Routes 460 and 301; and the Interstate Highway 85 interchange at Squirrel Level Road, which will increase the utility of that major thoroughfare in the southwestern quadrant of the City of Petersburg. While the prospective impact of these various road improvements cannot be forecast with certainty, there are comments which can be made concerning their potential ramifications for the City of Petersburg.

With respect to Interstate Highway 295, several points should be noted. First, the completion of this north-south thoroughfare will

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icipalities have compiled large surpluses during recent years. (County of Prince George, Proposed Findings and Recommendations and Petersburg Initiated Annexation, Feb. 1986, p. 65; and County of Prince George, Proposed Findings and Recommendations and Hopewell Initiated Annexation, Feb. 1986, pp. 35, 49.) In this regard the Commission observes that by June 30, 1985 Petersburg and Hopewell had accumulated aggregate "governmental" (i. e., nonproprietary and non-fiduciary) fund balances amounting to \$7,350,749 and \$7,511,833, respectively. (See City of Petersburg, Comprehensive Annual Financial Report: Fiscal Year Ended June 30, 1985, pp. 6-7; and City of Hopewell, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 1985, p. 11.) The corresponding end-of-year total for the County was \$6,843,337. (County of Prince George, Financial Report: Year Ended June 30, 1985, p. 5.) All of the parties to the current issues, then, emerged from FY1984-85 with surpluses of considerable magnitude. It should be noted, however, that many localities, including financially strained jurisdictions, endeavor to close each fiscal year with substantial balances when their revenue bases in the early stages of successive budgetary cycles are typically marked by a high incidence of receivables relative to cash and/or when they depend heavily on volatile funding sources whose yield may fall sharply during periods of economic recession. This point is supported by Gerard Miller, Director of Technical Services, Municipal Finance Officers Association of the U. S. and Canada, communication with staff of Commission on Local Government, May 14, 1986.

offer an alternative route for both the interstate traveler and the regional commuter, with the consequence that a significant percentage of the traffic currently traversing the City of Petersburg on Interstate Highway 95 is expected, in future years, to circumvent the City. Virginia Department of Highways and Transportation (VDH&T) statistics indicate that in 1984 the daily traffic volume on Interstate Highway 95 through the City of Petersburg averaged 45,735 vehicles, of which number 15,200 (33.2% of the total) were passenger cars licensed in other states.<sup>88</sup> The prospective impact of Interstate Highway 295 on future traffic patterns through the City of Petersburg is suggested by VDH&T projections which indicate that in the year 2007 the average daily traffic continuing north on Interstate Highway 95 beyond its intersection with Interstate Highway 295 will be 9,690 vehicles, most of which are expected to be local traffic.<sup>89</sup> Thus, projections suggest that the new north-south thoroughfare will significantly reduce future travel through the City of Petersburg on Interstate Highway 95. Second, since Interstate Highway 295 may eventually result in the construction of four major interchanges between the Appomattox River and its junction with Interstate Highway 95 south of Petersburg, this new transportation corridor has the potential to facilitate considerable development throughout the area.<sup>90</sup> It is reasonable to expect that these various interchanges will attract a significant amount of tourist-related facilities and influence the location of other businesses and industries which desire visibility

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<sup>88</sup>Virginia Department of Highways and Transportation, "Average Daily Traffic Volumes on Interstate, Arterial, and Primary Routes," 1984.

<sup>89</sup>H. M. Shaver, Jr., State Location and Design Engineer, Department of Highways and Transportation, communication with staff of Commission on Local Government, Jan. 24, 1986. The southernmost segment of Interstate Highway 295 in the year 2007 is expected to handle 36,840 vehicles per day.

<sup>90</sup>See Petersburg Annexation Notice, Vol. III, Exh. P-20. Both State and regional transportation plans for the Petersburg area include four interchanges at various locations along the route of

from or access to the new thoroughfare.<sup>91</sup> It is incontestable that Interstate Highway 295 will be a factor in the future development of the general area.

In terms of the prospective impact which Interstate Highway 295 and its interchanges will have on Petersburg, this Commission is in general agreement with the conclusion reached by a major research entity some years earlier. In a study published in December 1980 the Battelle Institute concluded that the proposed Interstate Highway 295 was "unlikely to enhance industrial development in Petersburg." After noting the disparity in the tax rates between the City and Prince George County, the Battelle Institute study asserted that the proposed highway "would only aggravate an already difficult situation for the City in marketing industrial property."<sup>92</sup> Despite this observation,

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Interstate Highway 295 south of the Appomattox River. [See Virginia Department of Highways and Transportation, Statewide Highway Plan, Crater Planning District (PD19), April 1984; and Crater Planning District Commission, Tri-Cities Area Year 2000 Transportation Plan.] Efforts to mitigate the impact on Petersburg of the proposed bypass have now resulted, however, in withdrawal of federal support for the construction of two of the interchanges (at State Route 645 near the northern corporate limits of Hopewell and at State Route 106) and the elimination of these interchanges from State construction plans at this time. (See Virginia Department of Highways and Transportation, "Design Features for Proposed Interstate 295, Prince George County, City of Hopewell, Chesterfield County," booklet prepared for the Design Public Hearing held by Virginia Department of Highways and Transportation on Jan. 18, 1983.) Future construction of these interchanges may have to be undertaken without federal funds and will depend on the availability of State and local monies. (Testimony of Preston L. Wade, Consultant, City of Petersburg, Proceedings, Oct. 29, 1985, p. 562.)

<sup>91</sup>The construction of the interchange with State Route 36 is apparently already encouraging development in that area, with two new motels being planned in the immediate vicinity. Moreover, we note that the properties adjacent to the southwestern side of U. S. Route 460 east of its proposed intersection with Interstate Highway 295 are already zoned, with the exception of one small area, for industrial or commercial development.

<sup>92</sup>Battelle Institute, Final Report on Community Impact Analysis of the Proposed I-95 Highway to U. S. Department of Housing and Urban Development (hereinafter cited as Battelle Report), Dec.

the Battelle Institute study concluded that "except for impacts on tourism [the new thoroughfare would appear] to have only minor and insignificant adverse consequences for . . . Petersburg."<sup>93</sup>

Consistent with the above-cited Battelle Institute observations, this Commission agrees that (1) industrial sites in the City are currently at a competitive disadvantage with those in Prince George County as a result of the existing disparity in tax rates, (2) the proposed Interstate Highway 295 will enhance the development potential of industrial sites in the County and perhaps some in the City, and (3) the new transportation corridor will result in the deflection of some tourist trade and highway-related commerce from Petersburg to areas adjacent to the new thoroughfare.

While Interstate Highway 295 will certainly lead to the construction of new tourist-related facilities at its various interchanges and direct traffic away from Petersburg, the evidence suggests that a major component of the City's tourist industry is unrelated to travel through the area. While studies have indicated that the value of tourism to the City of Petersburg in 1984 was in excess of \$39.6 million, a value exceeded by tourist activity in only 15 of Virginia's 136 cities and counties, a major component of that tourist business appears to have been derived from military and civilian personnel temporarily assigned to Fort Lee for various training programs.<sup>94</sup> This conclusion is supported by the fact that in 1985 in excess of \$13.0 million was paid as per diem by the Army to military and civilian per-

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1980, p. VI-23.

<sup>93</sup>*Ibid.*, p. VII-5. The Battelle study estimated that the completion of the proposed thoroughfare would result in Petersburg's annual loss of \$5.6 - \$8.7 million in "highway-related purchases" and an additional \$2.6 - \$3.8 million in "tourist-related expenditures" in 1995. (*Ibid.*, Table 19.)

<sup>94</sup>Virginia Department of Economic Development, Division of Tourism, Travel in Virginia, 1984. Petersburg's ten hotels, motels, and tourist camps recorded taxable sales in 1984 of \$12.0 million, or \$1.2 million per establishment. The City of Alexandria was the only locality in Virginia to record higher sales per establishment (\$1.7

sonnel assigned to temporary duty at Fort Lee.<sup>95</sup> This figure is more than one-third of the total value attributed to the tourist activity in Petersburg during the prior year. Moreover, the comparatively infrequent use of the Petersburg Information Center by tourists also suggests that only a limited portion of Petersburg's tourist industry has been derived from the travelers visiting the area.<sup>96</sup> In sum, a portion of Petersburg's tourist industry may be insulated from the negative effect of Interstate Highway 295 by virtue of the City's proximity to Fort Lee.<sup>97</sup>

A second major road improvement which can be expected to have an impact on the economy of the general area is the Temple Avenue extension, which, when completed, will provide a major road link between the Hopewell - Fort Lee area and the City of Colonial Heights.<sup>98</sup> This thoroughfare will not only divert commuting traffic away from the City of Petersburg, it will also facilitate increased use of commercial establishments in Colonial Heights by area residents and by personnel assigned to Fort Lee. This new roadway, coupled with the proposed construction of a new regional shopping mall located at

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million per establishment) than Petersburg in 1984. (Taxable Sales, Annual Report, 1984.)

<sup>95</sup>Burger, letter to staff of Commission on Local Government, Feb. 13, 1986. The Commission is aware that motels in other jurisdictions benefit from patronage by military and civilian personnel temporarily assigned to Fort Lee.

<sup>96</sup>Data indicate that during 1985 the Petersburg Information Center was visited by 21,419 tourists, significantly less than the 173,561 persons who visited the Fredericksburg Tourist Information Center the same year. [Division of Tourism, "Virginia Travel Barometer Contacts" (mimeographed monthly reports), 1985.]

<sup>97</sup>The Commission realizes that the construction of motels, restaurants, and other tourist facilities adjacent to Interstate Highway 295 may also be utilized by personnel assigned to Fort Lee for temporary duty, thereby constricting Petersburg's tourist trade.

<sup>98</sup>This thoroughfare, which is currently open to traffic between Interstate Highway 95 and State Route 645 in the Puddledock area, will be extended to State Route 36 just west of Hopewell's corporate

Temple Avenue and Conduit Road in Colonial Heights, can be expected to alter retail trade patterns throughout the region. It is reasonable to conclude that the City of Petersburg will be adversely affected by the prospective changes in the existing retail trade patterns.<sup>99</sup>

While the above-mentioned road improvements may well have net negative economic effects on the City of Petersburg, two other road projects in the area should have beneficial consequences for that municipality. First, the interchange which is planned for construction on Interstate Highway 85 at its juncture with Squirrel Level Road should enhance the development potential of the southwestern quadrant of the City.<sup>100</sup> Second, the planned Wagner Road improvements will create a four-lane thoroughfare connecting U. S. Routes 301 and 460 and will establish a new interchange with Interstate Highway 95 where those roads intersect. This transportation corridor should add to the development potential of the southeastern section of the City.<sup>101</sup>

In brief, the various road improvements proposed for the Petersburg area can be expected to have a significant and pervasive effect on development in the general area, not all of which will be beneficial to the economy and fiscal health of the City of Petersburg.

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limits in 1987. The Temple Avenue extension will have several exits increasing accessibility to the Puddledock area.

<sup>99</sup>The City's retail trade is already experiencing some constriction due to changes in economic conditions in the area. Miller & Rhoads closed, as of January 1986, its department store at the Walnut Plaza. The closing of this facility is not yet reflected in published retail sales data.

<sup>100</sup>The Commission has been advised that bids will be solicited for the construction of this interchange in October 1987. This interchange was recommended as a means of alleviating the potential adverse impact on Petersburg from the construction of Interstate Highway 295. (See Battelle Report, p. VII-7.)

<sup>101</sup>When completed, the Wagner Road improvements will enhance access from the Petersburg Industrial Park to Interstate Highway 95 and to U. S. Route 460 near the planned interchange with Interstate Highway 295. VDH&T plans to solicit bids for the construction of this facility in November 1986. The construction of the Wagner Road - Interstate Highway 95 interchange was one of the measures approved by

### Need for Land for Development

As stated previously in this report, the City of Petersburg contains 5,949 acres of vacant and undeveloped property.<sup>102</sup> Of this vacant property, however, 914 acres are restricted in their development potential by major environmental constraints (e. g., steep slopes, floodplain).<sup>103</sup> Thus, Petersburg currently possesses 5,035 acres of land, or 33.7% of its total land area, vacant and amenable to development.

In terms of Petersburg's potential for future industrial growth, the data reveal that the City contains approximately 685 acres of vacant property zoned for industrial usage.<sup>104</sup> In addition to this property, there are three other sites, totaling 404 acres, which are currently zoned for agriculture but, due to their potential for industrial development, are on file with the Virginia Department of Economic Development, the State's principal agency for the promotion of industrial growth.<sup>105</sup> Further, the City is also reported to have 13 vacant industrial buildings, containing 2.1 million square feet of floor space, available for new industrial initiatives.<sup>106</sup> Included

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State and federal highway officials to mitigate the impact of Interstate Highway 295. (Testimony of Marshall Kaplan, Expert Witness, City of Petersburg, Proceedings, Oct. 28, 1985, p. 44.)

<sup>102</sup>Petersburg Annexation Notice, Vol. I, p. 5-10.

<sup>103</sup>Gromel, letter to staff of Commission on Local Government, Feb. 18, 1986.

<sup>104</sup>Packer, communication with staff of Commission on Local Government, Apr. 22, 1986.

<sup>105</sup>Robert E. Shumate, Industrial Sites Specialist, Department of Economic Development, communication with staff of Commission on Local Government, Feb. 6, 1986. Included in the acreage zoned for industrial usage in Petersburg is a 300-acre site owned by General Foods. This site is served by two railroad lines which add to its development potential. The General Foods site is not included in those listed with the Department of Economic Development.

<sup>106</sup>Ibid.

in this property is approximately 1.75 million square feet of floor space in buildings which formerly were a part of the Brown & Williamson Tobacco Corporation's facilities in the City.<sup>107</sup>

Some measure of the City's ability to attract and accommodate new industrial growth in recent years may be obtained from an examination of building permit data. Between 1980 and 1984 the City of Petersburg issued 11 building permits, valued at \$4.2 million, for new industrial construction.<sup>108</sup> During the same span of years, Prince George County issued only one building permit, valued at \$70,000, for the construction of one new industrial facility.<sup>109</sup> While the new industrial development in the City between 1980 and 1984 was more than nullified by the subsequent loss of the Brown & Williamson Tobacco Corporation manufacturing operation, the data reveal that Petersburg has been successful in attracting new industrial activity and that its success during the period in question exceeded that of Prince George County.

With respect to the status of Petersburg's commercial development, the Commission notes that the City has continued to benefit from an increase in its taxable retail sales and, further, has continued to receive virtually the same share of the total taxable retail sales in the three jurisdictional area (City of Petersburg - City of Hopewell -

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<sup>107</sup>Calvert, letter to staff of Commission on Local Government, Mar. 3, 1986. Brown & Williamson Tobacco Corporation ceased operations at its manufacturing facility in Petersburg on January 1, 1986. The Company donated a portion of that facility to the City for development as an industrial park. The conversion of this property into sites for prospective businesses is being financed by \$333,000 in City funds and by a \$1.0 million grant from the U. S. Economic Development Administration.

<sup>108</sup>Michael A. Spar and Julia H. Martin, Housing Units Authorized in Virginia's Planning Districts, Counties, and Cities (Charlottesville: Tayloe Murphy Institute, University of Virginia), reports for 1980-1984. The annual editions of this publication also include data regarding industrial permits.

<sup>109</sup>Ibid.

Prince George County) as it did in 1970. Indeed, Petersburg's share of the total taxable sales in the three jurisdictional area actually increased slightly between 1970 and 1985 (65.4% to 68.3%).<sup>110</sup>

Further, business license data for the City reveal a modest increase in new licenses and revenues in recent years. Between 1980 and 1984 the number of business and professional licenses issued in Petersburg rose from 1,654 to 1,768, with the resulting license fees increasing from \$1.1 million to \$1.3 million.<sup>111</sup> During the same period of time the number of such licenses issued in Prince George County increased from 382 to 753, with the license fees growing from \$97 thousand to \$190 thousand.<sup>112</sup> Finally, statistics indicate that between 1980 and 1984 the City of Petersburg issued 85 building permits for new commercial construction, with the value of those permits placed at \$7.4 million.<sup>113</sup> During the same interval, Prince George County issued 24 permits for new commercial construction valued at \$8.5 million.<sup>114</sup> In terms of the City's potential for future commercial growth, the Commission notes that Petersburg contains approximately

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<sup>110</sup>Taxable Sales, Quarterly Reports, 1970; and Taxable Sales Annual Report, 1985. Prince George County's share of retail sales in the three jurisdictional area decreased during the same period from 10.3% to 8.1%. The City's taxable retail sales will be affected in future years by the closing of the Miller & Rhoads store at the Walnut Hill Plaza shopping center and by the proposed new regional mall in Colonial Heights.

<sup>111</sup>Calvert, letter to staff of Commission on Local Government, July 2, 1985.

<sup>112</sup>Susan L. Albert, Assistant to Special Counsel, County of Prince George, letter to staff of Commission on Local Government, Feb. 13, 1986.

<sup>113</sup>Housing Units Authorized in Virginia's Planning Districts, Counties, and Cities, reports for 1980-1984. These publications include data regarding commercial construction.

<sup>114</sup>Ibid.

528 acres of vacant property zoned for commercial purposes.<sup>115</sup> In sum, these data suggest that in recent years the City of Petersburg has experienced commercial growth in general proportion to its neighboring County and has sustained its share of the area's commercial base.

In terms of the City's need for land for residential development, the evidence indicates that Petersburg retains approximately 1,730 acres of vacant property zoned for future residential use.<sup>116</sup> The data also disclose that the City of Petersburg has experienced a modest degree of new residential development in recent years. Between 1980 and 1984 the City issued permits for the construction of 545 residential units, with 235 being issued for single-family dwelling units.<sup>117</sup> During the same period of time, however, Prince George County issued permits for the construction of 951 housing units, with 937 being issued for single-family dwelling units.<sup>118</sup> Thus, the number of single-family residential units authorized for construction in the County during the period from 1980 to 1984 was nearly four times that in Petersburg.

As the Commission has stated in numerous reports, we believe that the ability of a locality to offer an array of new housing opportunities to residents is an important element in its efforts to maintain a heterogeneous population. While the data reveal that Petersburg did experience a significant loss in the number of its younger families during the previous decade, and while its single-family residential construction since 1980 has been only one-fourth of

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<sup>115</sup>Charles Barnes, Consultant, City of Petersburg, communication with staff of Commission on Local Government, May 20, 1986.

<sup>116</sup>Ibid.

<sup>117</sup>Housing Units Authorized in Virginia's Planning Districts, Counties, and Cities, reports for 1980-1984.

<sup>118</sup>Ibid.

that of the County, this Commission is unable to conclude that such is due to the lack of suitable property for new residential development within the City's corporate boundaries.<sup>119</sup>

In sum, the data indicate that the City of Petersburg retains an extensive amount of vacant land suitable for industrial, commercial, and residential development. This Commission does believe, however, that the construction of Interstate Highway 295 will have a centrifugal influence on development in the general area, adversely affecting the competitiveness of some of Petersburg's commercial and industrial properties.<sup>120</sup>

#### CITY OF HOPEWELL

##### Need of City to Expand Tax Resources

Based on several important indices, the City of Hopewell reflects a stronger local tax base than either of the other two jurisdictions involved in these annexation proceedings. The evidence does indicate, however, that since 1970 Hopewell has experienced less fiscal growth than its neighboring jurisdictions and, moreover, has confronted in recent years a constriction in its economy which threatens to erode its fiscal position. Based upon the evidence presented below, this Commission finds that the City of Hopewell has a present need to expand its tax resources.

With respect to real estate and public service corporation properties, the major source of the City's local tax revenues, the data reveal that between 1970 and 1980 the true value of such property in Hopewell increased from \$147.4 million to \$384.3 million, or by 160.7%. During the same span of years, the value of such property in

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<sup>119</sup>In the decade between 1970 and 1980, the number of married families in Petersburg with own children under age 18 decreased from 3,432 to 3,076, or by 10.4%. 1970 Census of Population Characteristics of the Population, Virginia, Table 36; and 1980 Census of Population, General Social and Economic Characteristics, Virginia, Table 173.

<sup>120</sup>This Commission has examined with care the analysis provided by the Real Estate Research Corporation on behalf of Prince George

the County increased from \$118.7 million to \$375.2 million, or by 215.9%.<sup>121</sup> This disparity in growth rate has continued since 1980, with the true value of real estate and public service corporation properties in the City increasing by 1984 to \$442.1 million, or by 15.0%, while such values in the County rose during the same period to \$450.3 million, or by 20.1%.<sup>122</sup> Despite this differential in growth rates, the per capita true value of such property in the City in 1984 (\$18,269) still exceeded that in Prince George County (\$17,386).

In terms of taxable retail sales, a second major component of the City's tax base, statistics indicate that between 1970 and 1980 the total value of taxable retail sales in Hopewell increased from \$36.0 million to \$78.5 million, or by 118.1%. During the same interval, the value of such sales in Prince George County grew from \$15.5 to \$27.2 million, or by 75.5%.<sup>123</sup> Since 1980 the value of taxable retail sales in the two jurisdictions has risen at virtually identical rates. Between 1980 and 1985 taxable retail sales in the City

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County relative to the adequacy of Petersburg's vacant land and the prospective impact of Interstate Highway 295 on that City. (See County Defense to Petersburg Annexation, Vol. III, Tab 2.) This volume of material was presented to the Commission as supplemental hearing exhibits.) As indicated above, this Commission concurs with the contention that the City has sufficient vacant land for its industrial, commercial, and residential development during the ensuing decade. From our perspective, however, the construction of Interstate Highway 295 will adversely affect the competitive position and consequently the development potential of property in the City. This impact merits consideration in the disposition of the annexation issue.

<sup>121</sup>Estimated True (Full) Value of Locally Taxed Property in the Several Counties and Cities in Virginia - 1970; and Virginia Assessment/Sales Ratio Study, 1980. The County's growth rate was affected by Petersburg's 1972 annexation.

<sup>122</sup>Virginia Assessment/Sales Ratio Study, 1984 (forthcoming).

<sup>123</sup>Taxable Sales, Quarterly Reports, 1970; and Taxable Sales Annual Report, 1980.

increased to \$108.7 million, or by 38.5%, while the value of such sales in the County rose to \$37.0 million, or by 36.0%.<sup>124</sup> Further, it is relevant to note that since 1970, Hopewell's share of the total taxable retail sales in the three jurisdictional area (City of Hopewell - City of Petersburg - Prince George County) has remained almost constant, decreasing marginally between 1970 and 1985 from 24.2% to 23.7%.<sup>125</sup> Thus, while the City of Hopewell does not enjoy a retail sales base comparable to that in Petersburg, it has not experienced any significant erosion in its share of the region's retail sales activity over the last decade and one-half.

In regard to other measures of Hopewell's current fiscal condition, several additional statistical indices should be noted. First, data disclose that the 1983 per capita AGI in Hopewell (\$7,600) was significantly in excess of that in Prince George County (\$6,108).<sup>126</sup> Second, a weighted index of local fiscal resources based on true property values (weighted 0.5), taxable retail sales (weighted 0.1), and AGI (weighted 0.4), when calculated on a per capita basis for 1983 generates a score for the City of Hopewell (\$12,294) substantially in excess of that for Prince George County (\$10,941).<sup>127</sup> Finally, the JLARC study concluded in 1985 found, however, that, as of 1983, only 35 of the Commonwealth's 136 counties and cities had a lower measure of revenue capacity.<sup>128</sup>

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<sup>124</sup>Taxable Sales, Annual Report, reports for 1980 and 1985.

<sup>125</sup>During the same period, Prince George County's share of taxable sales in the three jurisdictions decreased from 10.3% to 8.0% of the total.

<sup>126</sup>Distribution of Virginia Adjusted Gross Income by Income Class and Locality, 1984. The per capita AGI figure for Prince George County understates the income of County residents due to the fact many military personnel at Fort Lee do not pay State income taxes, and, thus, their earnings are excluded from the computation.

<sup>127</sup>The weighted index statistic for the City of Hopewell is 67.1% of that for the State as a whole (\$18,337). See Appendix D.

<sup>128</sup>Local Fiscal Stress and State Aid, Appendix A.

Considering fiscal effort, or the extent to which local resources are utilized, the data indicate that residents of the City of Hopewell carry a significantly greater local fiscal burden than do those of Prince George County. Statistics for FY1983-84 reveal that the City of Hopewell generated local source revenues equivalent to \$551.97 per capita, or nearly two and one-half times the comparable figure for Prince George County (\$227.88).<sup>129</sup> Moreover, whether such local revenues raised by the two localities in FY1983-84 are considered on a per capita basis, or in relation to true property values, AGI, or the composite measure of local fiscal resources (true property values, taxable retail sales, and AGI), the data indicate that residents of the City of Hopewell bore a local revenue burden substantially in excess of that borne by residents of Prince George County.<sup>130</sup> The relative fiscal exertion of the City is reflected in the fact that real property tax rate in the City is nearly double that in Prince George County. The effective true tax rate on real property in Hopewell in 1984 (the latest year for which the statistic has been calculated) was \$1.04 per \$100 of assessed value, while the comparable rate in Prince George County for the same year was \$0.68.<sup>131</sup>

With respect to Hopewell's overall fiscal condition, several additional factors might be noted. First, the City has a relatively high concentration of people in need of social services. U. S. Bureau of the Census statistics indicate that, as of 1979 (the latest year for which the information is available), 12.5% of Hopewell's population had income below the official poverty level, a concentration of low income residents substantially in excess of that in Prince George

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<sup>129</sup>See Appendix D.

<sup>130</sup>Ibid.

<sup>131</sup>Virginia Assessment/Sales Ratio Study, 1984 (forthcoming). The Commission has noted the contention that Hopewell's reduction in its nominal real estate tax from \$1.28 in 1979 to \$1.10 in 1983 denotes an improvement in its fiscal condition. (County Defense to Hopewell Annexation, Vol. I, pp. 32-35.) During the period in question, however, Hopewell's effective true real property tax rate

County (9.5%) as of the same date.<sup>132</sup> More recent statistics disclose that the City continues to have a notable concentration of disadvantaged persons. Data published by the Virginia Department of Social Services reveal that, as of September 1985, 9.5% of Hopewell's population was participating in the Food Stamp Program, a percentage significantly in excess of that in Prince George County (3.5%) and surpassing that in the State overall (6.1%).<sup>133</sup> Further, as of the same date (September 1985), there were 458 cases of Aid to Dependent Children in the City, a caseload nearly three times that in Prince George County (167).<sup>134</sup> Moreover, recent economic conditions in the City suggest no diminution in the City's social service burdens. Between February 1985 and February 1986 unemployment in the City increased from 6.8% to 7.4%, an economic trend suggesting no decrease

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actually increased from \$1.00 to \$1.04. (Virginia Assessment/Sales Ratio Study, reports for 1979 and 1983. The Commission has also noted the observation that if Hopewell taxed its personal property and machinery and tools at rates equal to the average for all Virginia cities, it would be enabled to reduce by 50% its real property tax rate. (See testimony of Cox, Proceedings, Nov. 15, 1985, pp. 830-33.) With respect to the machinery and tools, Virginia cities employ various methods in their assessment of such property. A comparison of Hopewell's machinery and tools tax rates to the 17 other cities which use a similar assessment methodology reveals that Hopewell's 1985 effective tax rate for such properties (\$0.68 per \$100 of assessed value) was higher than the rate levied by ten of the subject localities. [Albert W. Spengler, Tax Rates in Virginia's Cities, Counties and Selected Towns: 1985 (Charlottesville, Institute of Government, University of Virginia, 1985), Appendix D.] Further, such a restructuring of Hopewell's tax rates would not alter the aggregate fiscal burden borne by City residents, which, as of FY1983-84, was nearly two and one-half times that of residents of Prince George County.

<sup>132</sup>1980 Census of Population, General Social and Economic Characteristics, Virginia, Tables 62, 171. Approximately 11.8% of the State's entire population in 1979 had income below the poverty level.

<sup>133</sup>Public Welfare Statistics.

<sup>134</sup>Ibid.

in need for various social services.<sup>135</sup> Finally, it is relevant to note that the JLARC study completed in 1985 reported that, as of 1983, the City of Hopewell was one of the Commonwealth's more severely fiscally stressed localities, with only two of the Commonwealth's 136 counties and cities recording a higher degree of fiscal stress.<sup>136</sup>

As suggested previously, an analysis of the fiscal condition of the City of Hopewell, as well as that for other jurisdictions in the area, requires consideration of the prospective impact of various road improvements scheduled for the general area. The principal road improvements affecting Hopewell are those involving the construction of Interstate Highway 295, with its various interchanges, and the Temple Avenue extension, which will provide a four-lane thoroughfare connecting the City's western corporate boundary with the City of Colonial Heights and with Interstate Highway 95 in the latter jurisdiction.

With respect to Interstate Highway 295, the Commission notes that this new route, which parallels the western boundary of the City of Hopewell, is contemplated to result in the construction of two major interchanges in the vicinity of the City. While only one of those interchanges, that at the intersection with State Route 36, has been federally approved for construction, the other is included in the Commonwealth's road plans for the area, indicating that the State may proceed eventually with its construction.<sup>137</sup> Since, as noted before, Interstate Highway 295 is expected to experience by the year 2007 an average daily volume of traffic exceeding 50,000 vehicles on some of its segments, the new thoroughfare and its several

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<sup>135</sup>Labor Force Estimates For the United States, Virginia and Virginia's MSA's, LMA's, Cities and Counties.

<sup>136</sup>Local Fiscal Stress and State Aid, Appendix A. JLARC's Method 1 was utilized in this calculation. Only the Cities of Norfolk and Portsmouth reflected higher degrees of fiscal stress on the basis of the JLARC analysis. See n. 87 supra.

<sup>137</sup>While this interchange (State Route 645) is not presently included in the State's construction plans, it remains as a recom-

interchanges can be expected to have a significant effect on Hopewell's future economy and fiscal condition. Given the fact that federally-owned properties consume virtually all of the territory west of Interstate Highway 295 near the two possible interchanges adjacent to the City of Hopewell, it is reasonable to conclude that development spurred by those interchanges will be directed toward and within the City.<sup>138</sup> In brief, in our judgment, Interstate Highway 295 and the two potential interchanges adjacent to the City of Hopewell will have a beneficial effect on the City of Hopewell's future economy and fiscal condition.<sup>139</sup>

With respect to the Temple Avenue extension, the impact on the City is more uncertain. This new thoroughfare may reasonably be expected to deflect some retail trade from Hopewell to its neighboring municipality north of the Appomattox River.<sup>140</sup> However, the Temple Avenue extension will also facilitate movement into the City of Hopewell and may promote its economic growth. In sum, various road improvements planned for the general area may well have, in our judgment, a net positive effect on the City of Hopewell.

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mended improvement on both State and regional transportation plans. [See Statewide Highway Plan, Crater Planning District (PD14), April 1984; and Tri-Cities Area Year 2000 Transportation Plan.]

<sup>138</sup>In this regard, it should be noted that State projections predict a traffic flow in excess of 50,000 vehicles per day into the City of Hopewell along State Route 36 from its interchange with Interstate Highway 295 by the year 2007. (Shaver, communication with staff of Commission on Local Government, Jan. 24, 1986.)

<sup>139</sup>It should be noted that the 1980 study by the Battelle Institute concluded that Interstate Highway 295 would have generally a positive effect on the City of Hopewell. The study predicted an annual increase of \$8.0 million in highway-related purchases in Hopewell as of 1995. (Battelle Report, Table 19.)

<sup>140</sup>Due to the more regional nature of its present retail activity, the Commission anticipates that the City of Petersburg will be more affected by the completion of the Temple Avenue extension than will the City of Hopewell.

### Need For Land For Development

The City of Hopewell contains 1,692 acres of vacant property.<sup>141</sup> Of this vacant territory, however, 977 acres are considered to be restricted in their development potential due to parcel size, ownership, or environmental constraints. Thus, exclusive of such property, the City of Hopewell retains 715 acres of territory, or 9.9% of its total land area, vacant and generally suitable for development.<sup>142</sup>

With respect to the City's prospects for industrial growth, the data indicate that Hopewell possesses 130 acres of vacant, developable property zoned for future industrial use.<sup>143</sup> In addition to this property, there are within the City two sites, totaling 110 acres, and six vacant buildings, containing 168,700 square feet of floor space, listed with the State Department of Economic Development due to their potential for future industrial usage.<sup>144</sup> The City has contended, however, that a considerable portion of the vacant property zoned for industrial development is actually restricted in its attractiveness for many forms of industrial or commercial activity as a result of its proximity to heavy industry.<sup>145</sup> This Commission acknowledges that certain forms of industrial activity will reduce the attractiveness of adjacent property for other types of industry. Notwithstanding such limitations, Hopewell has experienced industrial growth in recent years. Between 1980 and 1984 the City issued 41 building permits for new industrial construction, with the value of that development

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<sup>141</sup>Hopewell Annexation Exhibits: Data, p. 151.

<sup>142</sup>Ibid., p. 30.

<sup>143</sup>Ibid., p. 35.

<sup>144</sup>Shumate, communication with staff of Commission on Local Government, Feb. 6, 1986.

<sup>145</sup>Hopewell Annexation Exhibits: Data, p. 152.

totaling \$3.3 million.<sup>146</sup> Despite the evidence of this industrial growth in recent years, the Commission finds that the City of Hopewell does have a present need for additional land for industrial development.

In terms of Hopewell's commercial growth, we note that the City has essentially maintained its share of taxable retail sales in the area over the last 15-year period. Between 1970 and 1985 Hopewell's share of the total taxable retail sales in the three jurisdictional area (City of Petersburg - City of Hopewell - Prince George County) decreased slightly from 24.2% in 1970 to 23.7% in 1985.<sup>147</sup> Moreover, between 1980 and 1985 the City witnessed an increase in the number of business and professional licenses issued from 911 to 986, a net in growth of 75 in the number of licensees.<sup>148</sup> Further, between 1980 and 1984 the City issued 17 building permits for the construction of new commercial buildings, collectively valued at \$1.1 million.<sup>149</sup> While these data do not reflect a rapidly expanding commercial base, they do indicate that Hopewell has been able to preserve the commercial sector of its economy in recent years. The City's prospects for continued commercial growth are constrained, however, by the limited amount of vacant property within its boundaries. The evidence indi-

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<sup>146</sup>Housing Units Authorized in Virginia Planning Districts, Counties, and Cities, reports for 1980-1984. This publication includes data on permits for industrial facilities. During the same four-year period Prince George County issued only one permit for a new industrial building valued at \$70,000.

<sup>147</sup>Taxable Sales, Quarterly Reports, 1970; and Taxable Sales, Annual Report, 1985.

<sup>148</sup>Dianna W. Robbins, Commissioner of Revenue, City of Hopewell, memorandum to Milton Martin, Director of Development, City of Hopewell, Jan. 16, 1986. The number of business and professional licenses issued by Prince George County increased from 382 in 1980 to 761 in 1985. (Albert, letter to staff of Commission on Local Government, Feb. 13, 1986.)

<sup>149</sup>Housing Units Authorized in Virginia Planning Districts, Counties, and Cities, 1980-1984. This publication also includes data on commercial construction. During the same four-year period Prince

cates that the City presently possesses only 52 acres of vacant property zoned for commercial activity.<sup>150</sup> Accordingly, the City of Hopewell will require, in our judgment, additional land for development in order to continue to share in the commercial growth of its general area.

In regard to prospects for further residential growth, we note that City officials have advised that Hopewell retains 534 acres of vacant property suitable for residential development.<sup>151</sup> Much of this vacant property, however, is located on small parcels between 10 and 26 acres in size with reduced attractiveness for development.<sup>152</sup> Nevertheless, the evidence indicates that Hopewell has experienced some residential growth in recent years, with the data revealing that between 1980 and 1984, there were 275 subdivided lots recorded in the City.<sup>153</sup> Further, between 1980 and 1984 the City issued 545 building permits for the construction of new residential dwelling units, with 235 being issued for single-family units.<sup>154</sup>

Statistics do reveal that since 1970 Hopewell has witnessed a diminution in the younger segment of its population. Between 1970 and 1980 the number of married families with children age 18 and under in the City decreased by 13.3%, while during the same span of years the

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George County issued 24 permits for commercial construction valued at \$8.5 million. One of these permits was for the construction of the Food Lion distribution center.

<sup>150</sup>Hopewell Annexation Exhibits: Data, p. 35.

<sup>151</sup>Ibid.

<sup>152</sup>Ibid., pp. 32-35.

<sup>153</sup>Ibid., p. 69.

<sup>154</sup>Housing Units Authorized in Virginia's Planning Districts, Counties, and Cities, 1980-84. During the same span of years Prince George County issued permits for the construction of 951 housing units, of which total 937 were for single-family residences. Approximately ten subdivisions were platted by the County between 1980 and 1984 in the area Hopewell proposes to annex. (Robert P. Goumas, Consultant, County of Prince George, letter to staff of Commission on Local

number of such families in Prince George County rose by 7.0%.<sup>155</sup> An increased ability to offer prospective residents a broad array of housing opportunities should enhance Hopewell's capacity to attract and maintain a heterogeneous population. In our judgment, the City of Hopewell does have a need for additional land in order to increase the housing alternatives available within its municipal boundaries.

This Commission has noted the calculations which have been made by the County's consultants suggesting that Hopewell does have, assuming a certain density and pattern of development, adequate room for future growth.<sup>156</sup> These abstract calculations offered by the County's consultants involve densities of development and land use patterns which neglect consideration of many important concerns which properly affect the development potential of localities. Absent from the calculations is consideration of the differential cost of construction, the influence of adjacent development and location, and the space required for additional public facilities to accommodate such intense development. Whatever its zoning may legally allow, no locality can be expected to promote development to its theoretical limits.<sup>157</sup> In our view, the realization of the development patterns proposed for Hopewell by the County's methodology is simply unachievable. Again, the Commission finds that the City of Hopewell does have a current need for additional land for future industrial, commercial, and residential development.

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Government, Jan. 20, 1986.)

<sup>155</sup>1970 Census of Population, Characteristics of the Population, Virginia, Table 36; and 1980 Census of Population, General Social and Economic Characteristics, Virginia, Table 173.

<sup>156</sup>Testimony of Elizabeth B. Davidson, Consultant, County of Prince George, Proceedings, Nov. 15, 1986, pp. 722-51. See also County Defense to Hopewell Annexation, Vol. III, Tab C. This volume was presented to the Commission as supplemental hearing exhibits.

<sup>157</sup>After reviewing the development potential of sites identified by Hopewell as available for development the County's consultants concluded:

ADVERSE IMPACT ON COUNTY OF LOSS OF TAX RESOURCES,  
LAND FOR DEVELOPMENT, AND PUBLIC FACILITIES

The annexations proposed by the Cities of Petersburg and Hopewell, as all other city annexations in Virginia, involve the transfer of both assets and liabilities from one jurisdiction to another and require consideration of the impact of such transfers on the affected jurisdictions. In terms of the adverse impact on a county resulting from the loss of tax resources, the annexation laws of the State empower the reviewing court, in balancing the equities in a case, to require the annexing city (a) to compensate the county for the loss of county-owned and maintained public improvements, (b) to assume a just proportion of the county's existing debt, and (c) to pay the county for its perspective loss of net tax revenue for as long as five years following the annexation.<sup>158</sup> These legal provisions provide the court with the means of assisting a county during a period of adjustment subsequent to annexation. With respect to a county's long-range needs, however, it is necessary to consider the impact of a proposed annexation on the county's development potential and on its prospects for future economic growth. The following sections of this report consider the prospective long-range impact of the annexations proposed by the City of Petersburg and by the City of Hopewell on the future viability of Prince George County.

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"If the parcels listed . . . were to be developed at the maximum density allowed under current zoning, these 48 sites could contain over 7,200 dwelling units, about 940,000 square feet of commercial space, and over 7.9 million square feet of industrial space." (See County Defense to Hopewell Annexation, Vol. III, Tab C, p. 105.)

<sup>158</sup>Sec. 15.1-1041, Code of Va.

Annexation Proposed By the City of Petersburg

The annexation proposed by the City of Petersburg would bring within the corporate limits of that municipality 23.4 square miles of territory in Prince George County containing a 1984 estimated population of 13,013, a 1983 schoolage population of 2,299, and 1985 assessed property values of \$73.7 million.<sup>159</sup> Thus, the annexation proposed by Petersburg would transfer to that municipality 8.3% of the County's total land area, 50.2% of its estimated 1984 population, 37.8% of its 1983 schoolage population, and 17.9% of its total 1985 assessed property values.

With respect to the impact of this proposed annexation on the County's prospects for future industrial development, the evidence indicates that 9 of the 13 industrial sites in Prince George County listed with the State's Department of Economic Development are located within the area sought for annexation by the City of Petersburg. Those nine sites, however, embrace only 41.4% of the total acreage listed by the County with the State's primary development agency.<sup>160</sup> In addition, the area proposed for annexation by Petersburg includes all of the planned or proposed interchanges along Interstate Highway 295 which would be located in Prince George County. While the County possesses vast acreage of land suitable for industrial development outside the area proposed for annexation by Petersburg, that area does

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<sup>159</sup>Petersburg Annexation Notice, Vol. I, p. 5-4; County Defense to Petersburg Annexation, Vol. I, p. 31; and ibid., Vol. III, Tab 1.

<sup>160</sup>Shumate, communication with staff of Commission on Local Government, Feb. 6, 1986. Of those sites within the area proposed for annexation by the City of Petersburg, one site, comprising 200 acres, is marked by sand and gravel pits reflecting previous extractive operations. These previous excavations reduce the property's attractiveness for development. It might be noted here that a recent effort by the County to identify sites with significant potential for development resulted in the identification of seven such sites, only one of which (in the Puddledock area) is located in the area proposed for annexation by Petersburg. [County of Prince George, Economic Development Plan, 1986 (hereinafter identified as County Development Plan).] This site was also one of those listed with the State's

contain sectors with significant development potential.<sup>161</sup>

In terms of commercial development, the area proposed for annexation by Petersburg embraces the County's largest commercial sector, the Lee Plaza shopping center and adjacent development along State Route 36. Due principally to that commercial concentration, the area sought for annexation by Petersburg is expected to produce 58.7% of the County's total local sales tax receipts during FY1985-86.<sup>162</sup> Moreover, since the area also includes all of the Interstate Highway 295 interchanges which are planned or have been proposed south of the Appomattox River, the proposed annexation would remove from the County a number of sites with significant potential for future commercial activity. Thus, Petersburg would acquire as a result of the proposed annexation, not only a large component of the County's existing commercial base, but properties which presently have a higher potential for future commercial development than others in Prince George County.

In regard to the impact of the proposed annexation on County-owned facilities, the evidence indicates that the annexation would bring within Petersburg's boundaries one school (Walton Middle School) and a modest amount of utility lines. With respect to such utility facilities, the area currently contains 2.2 miles of County-owned water lines serving 45 connections.<sup>163</sup> Those facilities represent 10.9%

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Department of Economic Development.

<sup>161</sup>A significant portion of the property adjacent to U. S. Route 460 between the planned Interstate Highway 295 interchange and the boundary of the area proposed for annexation has been zoned for industrial usage.

<sup>162</sup>County Defense to Petersburg Annexation, Vol. I, Tab 4. According to the County's estimate, the area proposed for annexation by Petersburg will generate approximately \$249,000 in local sales tax receipts during FY1985-86.

<sup>163</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985.

of the County's total water mains and serve 6.7% of all the County's water connections.<sup>164</sup> In addition, the area sought for annexation contains 8.5 miles of County-owned sewerage lines serving 312 connections.<sup>165</sup> Those sewer facilities represent 40.5% of the County's total sewerage lines and serve 25.0% of all its sewerage connections.<sup>166</sup> It should be noted that the County is currently in the process of constructing an additional 2.7 miles of water lines and 4.4 miles of sewer lines within the area Petersburg seeks to annex.<sup>167</sup>

In brief, the area proposed for annexation by Petersburg is estimated to encompass over one-half the County's 1984 population, a major component of its current commercial base, and a segment of its territory with the greatest potential for future development. We note that the County's comprehensive plan indicates that the area sought for annexation by Petersburg is anticipated to receive approximately 80% of the County's future population growth in ensuing decades.<sup>168</sup> The consequences of the loss of this area on the County are made more significant by population projections which indicate that the Petersburg - Hopewell - Colonial Heights Standard Metropolitan Statistical Area (SMSA) is expected to have an annual population growth of only 0.2% per year through the end of this century.<sup>169</sup>

A final note must be added regarding the adverse impact which Prince George County would experience as a result of the annexation proposed by the City of Petersburg. During federal FY1983-84 (Oct.

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<sup>164</sup>Ibid.

<sup>165</sup>Ibid.

<sup>166</sup>Ibid.

<sup>167</sup>Ibid.

<sup>168</sup>County Defense to Petersburg Annexation, Vol. I, p. 177; and County Comprehensive Plan, p. 23.

<sup>169</sup>Virginia Department of Planning and Budget, Virginia Population Projections 2000, Jan. 1983. The jurisdictions which

1, 1983 - Sep. 30, 1984) Prince George County received \$2.4 million in federal educational assistance due to the number of children enrolled in the County's school system from families which lived and/or worked on federal properties within that jurisdiction.<sup>170</sup> Such federal assistance represented approximately 21% of the school system's total revenues for FY1983-84.<sup>171</sup> Thus, the presence of these students in the County's school system provides a major source of financial aid for the Prince George County educational program. It is relevant to observe that, due to the mechanics of this federal educational assistance program, the transfer of these students to the City's school system would result in a lesser amount of federal educational assistance being provided to Petersburg.<sup>172</sup>

#### Annexation Proposed By the City of Hopewell

The annexation proposed by the City of Hopewell encompasses 16.6 square miles of County territory containing a 1984 estimated population of 3,096, a 1983 schoolage population of 594, and 1985 assessed

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comprise the Petersburg - Colonial Heights - Hopewell "Standard Metropolitan Statistical Area" (SMSA) include the Cities of Petersburg, Colonial Heights and Hopewell and the Counties of Dinwiddie and Prince George. This data source indicates that the Petersburg - Hopewell - Colonial Heights "Standard Metropolitan Statistical Area" will have an annual population growth during the rest of this century which will be exceeded by all the other SMSAs in Virginia except for the Danville SMSA. Between 1990 and 2000 the Danville SMSA is expected to have an annual population growth equal to that in the Petersburg - Hopewell - Colonial Heights SMSA. It should be noted that the U. S. Bureau of the Census no longer considers the Petersburg - Colonial Heights - Hopewell area as a separate SMSA.

<sup>170</sup>Carroll Dexter, U. S. Department of Education, Division of Impact Aid, Program Support Branch, Payment Section, communication with staff of Commission on Local Government, Jan. 13, 1986.

<sup>171</sup>Albert, communication with staff of Commission on Local Government, Jan. 8, 1986.

<sup>172</sup>In instances where the children of federal employees who live and work on federal property comprise 20% or more of a local school district's average daily attendance (ADA), the Federal Impact Aid program will reimburse those districts for 100% of the local per

property values of \$57.0 million.<sup>173</sup> Thus, the area contains 5.9% of Prince George County's total land area, 12.0% of its 1984 population, 9.5% of its 1983 schoolage population, and 13.9% of its total 1985 assessed property values. While the area proposed for annexation by Hopewell includes the Federal Correctional Institution and portions of Fort Lee military reservation, it does not contain any major residential concentrations at the latter installation.<sup>174</sup>

In terms of the impact of the proposed annexation on the County's potential for future industrial growth, the Commission notes that none of the 13 industrial sites listed by the County with the State's Department of Economic Development are located within the area sought for annexation by Hopewell.<sup>175</sup> Moreover, only one of seven sites identified for their development potential in a recent survey undertaken by the County is located within the area proposed for annexation

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pupil educational cost minus capital outlay expenses. (See 20 USCS 238.) If such children comprise a lesser percentage of a district's ADA, or if the parents of students only live or work on federal property (but not both), the reimbursement rate to a district varies between 10% and 45% of such local educational costs, with the reimbursement varying depending on federal appropriations. In 1985 the number of students whose parents lived and work on federal property in Prince George County (primarily Fort Lee and the Federal Correctional Institution) was approximately 26% of the County's school enrollment. If those children of federal employees had been enrolled in the Petersburg schools during the 1983-84 school year (the latest years for which data are available), they would have comprised only 18.0% of that system's ADA, thereby resulting in a significant decrease of such federal aid to the City.

<sup>173</sup>Hopewell Annexation Exhibits: Data, p. 18; and County Defense to Hopewell Annexation, Vol. I, p. 14.

<sup>174</sup>The area does contain staff and inmate population of the Federal Correctional Institution. That population, as of 1980, was 739 persons. (Hopewell Annexation Exhibits: Data, p. 18). The portions of Fort Lee proposed for annexation by Hopewell do not include any permanent residential facilities.

<sup>175</sup>Shumate, communication with staff of Commission on Local Government, Feb. 6, 1986.

by Hopewell.<sup>176</sup>

In terms of impact on the County's commercial base, the area sought for annexation by Hopewell includes the Lee Plaza shopping center and adjacent development along State Route 36. This sector constitutes, as noted before, the County's largest concentration of commercial activity. Due in large part to the inclusion of that commercial property, the area proposed for annexation by Hopewell is expected to generate 41.7% of the County's total local sales tax revenues in FY1985-86.<sup>177</sup> Further, the proposed annexation would encompass the two Interstate Highway 295 interchanges that are planned or proposed for the Hopewell area. While the County possesses many areas amenable to commercial development outside the territory sought for annexation by Hopewell, the proposed annexation would remove from the County, the sector with the greatest potential for future commercial activity.

In terms of County-owned improvements, the Commission notes that the area sought for annexation by Hopewell contains only utility facilities. Within the area the County owns 9.9 miles of water mains serving an estimated 114 connections.<sup>178</sup> Those facilities represent 48.4% of all the County's water mains and serve 16.8% of all its water connections.<sup>179</sup> The area also contains 4.9 miles of County-owned sewerage lines

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<sup>176</sup>County Development Plan. This site, which is located between State Route 646 and Bailey Creek, contains approximately 255 acres.

<sup>177</sup>County Defense to Hopewell Annexation, Nov. 1985, Vol. III, p. 36.

<sup>178</sup>Goumas, letter to staff of Commission on Local Government, Jan. 13, 1986.

<sup>179</sup>Ibid. The County is presently in the process of constructing an additional 1.0 mile of water lines in the area.

serving 443 connections.<sup>180</sup> These facilities represent 23.5% of all the County's sewerage lines and serve 35.5% of its total sewerage connections.<sup>181</sup>

Despite the greater concentration of utility facilities in the area the proposed for annexation by Hopewell, the proposed Hopewell annexation would not have an impact on Prince George County comparable to that which would result from the proposed extension of Petersburg's boundaries. This more limited impact is due principally to the exclusion of those Fort Lee properties containing residential facilities. This exclusion reduces both the demographic and fiscal impact of Hopewell's proposed annexation.

#### Cumulative Impact of Proposed Annexations

Considered jointly, the annexations proposed by the City of Petersburg and the City of Hopewell encompass 33.5 square miles of County territory containing 51.2% of its 1984 estimated population, 44.4% of its 1983 schoolage population, and in excess of 15% of its 1985 assessed property values. Further, the proposed annexations, in the aggregate, would remove from the County its major commercial area, all of the planned or proposed Interstate Highway 295 interchanges south of the Appomattox River, and the geographic area expected to receive 80% of the County's future demographic growth during the remainder of this century.<sup>182</sup> While the compensation which would be paid the County by the municipalities pursuant to such annexations would protect, in our judgment, the County's fiscal viability for the immediate future, the cumulative effect of the proposed municipal boundary expansions, if approved as presented, would dramatically alter for the foreseeable future the nature of Prince George County.

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<sup>180</sup>Ibid.

<sup>181</sup>Ibid. The County is currently in the process of constructing an additional 4.6 miles of sewerage lines in the area.

<sup>182</sup>County Defense to Hopewell Annexation, p. 43; and County Comprehensive Plan, p. 23.

### URBAN SERVICE CONSIDERATIONS

The annexation statutes require that consideration be given to the urban service needs of an area proposed for annexation, the level of services currently provided by the municipality proposing annexation and by the affected county, and the relative ability of the jurisdictions to serve the area in question. In this report the Commission will consider concurrently two distinct annexation actions initiated by the City of Petersburg and the City of Hopewell involving separate, but overlapping, territory in Prince George County.<sup>183</sup> The annexation proposed by the City of Petersburg embraces 23.4 square miles of territory in the County containing an estimated 1984 population of 13,313 persons. The nonfederally-owned portion of the area sought for annexation by Petersburg consists of 11.3 square miles of territory containing, according to the City's 1985 estimate, a population of 3,264 persons.<sup>184</sup> These data indicate that the nonfederally-owned portion of the area proposed for annexation has a population density of approximately 289 persons per square mile, or more than three times that in Prince George County generally (92 persons/square mile).<sup>185</sup>

The area proposed for annexation by the City of Hopewell encompasses 16.6 square miles of territory and contains an estimated 1984 population of 3,096 persons. Included in the area sought for annexation by Hopewell are 4.4 square miles of federally-owned properties containing a resident population estimated at 695 persons.<sup>186</sup> The

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<sup>183</sup>The area proposed for annexation by the City of Petersburg includes approximately 6.5 square miles of territory sought for annexation by the City of Hopewell.

<sup>184</sup>The City's estimate of the population on the nonfederally-owned portion of the area proposed for annexation is found in Petersburg Annexation Notice, Vol. I, p. 5-4.

<sup>185</sup>The density for the County is based on a 1984 population estimate. The exclusion of the area and population attributable to the Fort Lee military installation and Federal Correctional Institution would give the remaining portion of the County a population density of 57 persons per square mile.

<sup>186</sup>Hopewell Annexation Exhibits: Data, p. 18. All of the resi-

data indicate that the population density of the nonfederally-owned property in the area Hopewell proposes to annex is approximately 194 persons per square mile, or twice that in the County generally. Thus, the areas proposed for annexation by both Petersburg and Hopewell have a density of population on the nonfederally-owned properties considerably in excess of that in the County generally. The extent of development in those areas creates a need for urban services different from that which exists in the outlying portions of Prince George County. The following sections of this report address these urban service considerations.

#### Water Supply and Distribution

Prince George County. The County obtains potable water for its distribution system from the Appomattox Regional Water Authority (ARWA), the Virginia American Water Company (VAWC), and nine County-owned wells located throughout its jurisdiction.<sup>187</sup> While the County has been a member of the ARWA since its creation, it has only recently began the purchase of water from that entity.<sup>188</sup>

Within the areas proposed for annexation the County currently serves directly only several communities. A small section of the Puddledock area is served by the County with water purchased from the ARWA.<sup>189</sup> Prince George County also serves directly through its own distribution

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dent population on the federally-owned properties in the area Hopewell seeks to annex are inmates or staff at the Federal Correctional Institution. As of 1980, that institution housed 695 inmates and 44 staff members.

<sup>187</sup>County Defense to Petersburg Annexation, Vol. I, p. 77; *ibid.*, Vol. II, Exh. 6; and Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Dec. 31, 1985.

<sup>188</sup>County Defense to Petersburg Annexation, Vol. I, p. 77; and Kines, communication with staff of Commission on Local Government, Apr. 11, 1986. In November 1985 the County began the purchase and utilization of water from the ARWA.

<sup>189</sup>See County Defense to Petersburg Annexation, Vol. II, Exh. 6. Approximately 39 connections in the Puddledock area are served by this system. Prior to November 1985 water for this system was

system a portion of the Birchett Estates subdivision, with water purchased from the VAWC, in the area proposed for annexation by Hopewell.<sup>190</sup> The evidence indicates that the County owns and operates 2.2 miles of water mains (10.9% of the County's total) serving 45 connections (6.7% of its total) within the area Petersburg seeks to annex.<sup>191</sup> In the area proposed for annexation by Hopewell, the County currently owns and maintains 9.9 miles of water mains (48.4% of the County's total) serving 114 connections (16.8% of its total).<sup>192</sup> Other portions of the areas proposed for annexation are served by the VAWC and other privately-owned systems.<sup>193</sup> The VAWC serves directly 182 connections within the area Petersburg proposes to annex and 452 connections in the area sought for annexation by Hopewell.<sup>194</sup> The various federal facilities are served by water purchased from the City

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purchased from the City of Petersburg.

<sup>190</sup>City of Hopewell, City of Hopewell Annexation Exhibits: Maps (hereinafter cited as Hopewell Annexation Exhibits: Maps), July 1985, Exh. M-5; and Kines, communication with staff of Commission on Local Government, Apr. 11, 1986.

<sup>191</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985. The total of the County-owned water lines in the area does not include the recently completed 2.7 mile line to serve the Puddledock area. The County's expenditure of an estimated \$880,000 for the construction of the new line represents its only outlay of County funds for water facilities in the area Petersburg seeks to annex. (Ibid.)

<sup>192</sup>Goumas, letter to staff of Commission on Local Government, Dec. 31, 1985. The County is reported to have expended \$691,500 for the construction of these water lines within the area Hopewell seeks to annex. The County currently has under construction an additional 5,500 linear-feet of water lines in the area the City proposes to annex. (Ibid.)

<sup>193</sup>There are no County-owned wells located within the area proposed for annexation. See County Defense to Hopewell Annexation, Vol. II, Exh. 6.

<sup>194</sup>Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Dec. 31, 1985. The connections which the VAWC serves in the Jefferson Park subdivision are included in the totals reported for both areas sought for annexation.

of Petersburg or from the VAWC.<sup>195</sup> In sum, the areas proposed for annexation receive water from a variety of public and private sources.

City of Petersburg. The City of Petersburg is also a member of the ARWA and acquires treated water for its distribution system from that entity.<sup>196</sup> Since the City is granted a 16.1 million gallons per day (MGD) allocation from the ARWA, and since its current purchases for its distribution system average 5.38 MGD, the City retains a reserve capacity of approximately 10.7 MGD to meet its future water needs.<sup>197</sup>

In terms of its distribution system, the City owns and maintains 156 miles of water lines serving approximately 14,000 connections.<sup>198</sup> While the City does not serve directly any connections within the area proposed for annexation, it does sell water to the federal government for use on the Fort Lee military reservation. The City's distribution system appears to function efficiently, with reported water loss from its lines being extremely low.<sup>199</sup> The Petersburg system includes five storage facilities which have a capacity of 10.3 million gallons (MG).<sup>200</sup> These facilities serve to

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<sup>195</sup>Petersburg Annexation Notice, Vol. I, p. 6-24.

<sup>196</sup>Ibid., pp. 6-19-21. The ARWA treatment plant has a capacity of 46 MGD.

<sup>197</sup>Gromel, letter to staff of Commission on Local Government, Feb. 4, 1986. The City's water purchases include that which is subsequently sold to Virginia State University and the Fort Lee military installation. During the period 1980-84 sales to Fort Lee averaged 0.9 MGD. (Ibid.)

<sup>198</sup>Petersburg Annexation Notice, Vol. I, p. 6-20.

<sup>199</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985. Water lost through the City's distribution system in 1984 was reported to be 7.5% of the amount treated.

<sup>200</sup>Petersburg Annexation Notice, Vol. I, p. 6-22.

provide the City's system with needed pressure and an emergency supply of water.<sup>201</sup>

In terms of proposed improvements in the area it seeks to annex, the City has stated its intention to invest \$4.95 million in the construction of 13.4 miles of water lines and appurtenances during the 10-year period subsequent to annexation. The City's plans call for the extension of water lines to serve the areas adjacent to U. S. Route 301 south of the City, the Puddledock area, and the Commonwealth Acres subdivision during the first four years following the annexation.<sup>202</sup> During the ensuing three-year period, the City proposes to expend an additional \$2.3 million for the extension of water lines along U. S. Route 460 to its interchange with Interstate Highway 295 and along State Route 106.<sup>203</sup> While County exhibits show these various projects as being "proposed", Prince George County's capital improvement plan for Fiscal Years 1986-1990 calls only for construction of lines to serve the mobile home park in the Puddledock area and for the construction of facilities south along U. S. Route 460.<sup>204</sup>

City of Hopewell. The City of Hopewell does not own or operate

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<sup>201</sup>State Health Department regulations require that minimum finished water storage for domestic purposes be not less than 200 gallons per equivalent residential connection. (State Board of Health, Water Works Regulations, Feb. 1982, Sec. 7.06.02.) In addition, a certain minimum storage, based upon the attributes of the community, is required for fire flow purposes. (Insurance Services Office, Fire Suppression Rating Schedule, 1980.)

<sup>202</sup>Petersburg Annexation Notice, Vol. I, pp. 13-7-8; and ibid., Vol. II, Exh. P-9.

<sup>203</sup>Ibid. The City also proposes to purchase the lines in the area owned by the County and the VAWC at an additional cost of approximately \$1.5 million. (The City's estimate of the cost to purchase these water lines is found in an exhibit entitled "Preliminary Estimate of Possible Total Cost to Purchase Utilities in the Area Proposed for Annexation - 1-1-86--1-1-87" which were filed with the Commission on Oct. 29, 1985.)

<sup>204</sup>County Defense to Petersburg Annexation, Vol. II, Exh. 6; and Spencer H. Elmore, Consultant, County of Prince George, letter to staff of Commission on Local Government, Oct. 21, 1985.

any water purification or distribution system. Instead, the City's water needs are met by contract with VAWC. Thus, the quality of water service in the City and the capacity of that municipality to serve the area it seeks to annex are currently determined by the attributes of the VAWC. The evidence indicates that the VAWC has served Hopewell and adjacent areas efficiently and effectively in recent years.<sup>205</sup> In terms of Hopewell's proposals to serve the area it seeks to annex, the City has indicated its intention to purchase from the County the system which it owns currently serving the Birchett Estates subdivision.<sup>206</sup> With the exception of that expenditure, Hopewell does not propose any direct investment for the extension or improvement of water service within the area sought for annexation. While Hopewell officials have suggested that water lines be extended along State Route 10 and State Route 646, the extension of such service will be left to the VAWC.<sup>207</sup> It is relevant to note that while these projects have been marked as "proposed" on County exhibits submitted to this Commission, they are not included within Prince George

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<sup>205</sup>The VAWC treatment plant, which has a rated capacity of 33.0 MGD, experienced an average daily usage during 1984 of 21.3 MGD. Thus, the facility retains a reserve capacity of 11.7 MGD to meet the future needs of the VAWC's service area. (Hopewell Annexation Exhibits: Data, p. 56; and Virginia American Water Company, Comprehensive Planning Study, June 1985, p. 2-9.)

<sup>206</sup>City of Hopewell, Annexation Exhibits: Statistical Data & Descriptions - Supplement (hereinafter cited as Hopewell Annexation Exhibits: Data Supplement), Nov. 1985, p. 12. The City has estimated that the value of the existing water system in and adjacent to the Birchett Estates is \$222,000. The City has cautioned that the estimated value is based upon only general information available and that the price of acquisition should be subject to negotiation based upon detailed information regarding the system.

<sup>207</sup>Testimony of William M. Zollman, Jr., Consultant, City of Hopewell, Proceedings, Nov. 14, 1985, pp. 533-35. The VAWC has indicated its willingness and ability to serve the area proposed for annexation. (See Roy W. Mundy, II, District Manager, Hopewell District, Virginia American Water Company, letter to Milton Martin, City of Hopewell, Oct. 29, 1985 in Hopewell Annexation Exhibits: Data Supplement, pp. 29-30.)

County's current capital improvement program.<sup>208</sup> However, the only two population concentrations within the area Hopewell proposes to annex, Jefferson Park and Birchett Estates subdivisions, are currently served by central water systems.

Summary. While the Cities of Petersburg and Hopewell can be expected to meet effectively the public water concerns of the areas proposed for annexation, this Commission is unaware of any major unmet water needs in those areas. Although the County is addressing the water needs of those areas through a variety of public and private facilities, we find the County's efforts to be adequate.

#### Sewerage

Prince George County. While there are no County-owned sewage treatment facilities in either of the areas proposed for annexation by Petersburg and Hopewell, there are three private treatment facilities which serve portions of those areas.<sup>209</sup> The County does, however, own and maintain a concentration of sewage collection lines within the areas proposed for annexation. In the area Petersburg seeks to annex there are approximately 8.5 miles of sewage collection lines (40.5% of the County's total) serving 312 connections (25.0% of its total).<sup>210</sup> In addition, the County has another 4.4 miles of sewer lines currently under construction in the area sought for annexation by Petersburg.<sup>211</sup> Prince George County also owns and maintains approximately 4.9 miles of sewer lines (23.5% of the County's total)

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<sup>208</sup>Elmore, Consultant, County of Prince George, letter to staff of Commission on Local Government, Oct. 21, 1985.

<sup>209</sup>County Defense to Petersburg Annexation, Vol. II, Exh. 4. Two of the private facilities serve mobile home parks in the Puddledock area.

<sup>210</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985. The County owns a total of 21.0 miles of sewer lines in its entire system serving approximately 1,250 connections.

<sup>211</sup>Ibid. These lines in the area Petersburg seeks to annex constitute 32.6% of the total of such facilities currently under construction by the County. The cost for the construction of the

in the area Hopewell seeks to annex serving 443 connections (35.5% of its total).<sup>212</sup> Further, the County also has under construction another 4.5 miles of sewer lines in that area.<sup>213</sup>

In terms of the treatment of sewage collected by the County-owned lines, Prince George County has arranged with the Cities of Petersburg and Hopewell to treat such effluent. The County's agreement with the City of Petersburg reserves for the County's use 1.5 MGD of treatment capacity at the Petersburg plant.<sup>214</sup> Since the average daily flow to the City's treatment plant from the County is 0.335 MGD, the County retains a reserve of 1.17 MGD for future use at the Petersburg facility.<sup>215</sup> While the County's agreement with the City of Petersburg for this sewage treatment is currently due to expire in 1999, its terms permit extension for succeeding five-year periods.<sup>216</sup> The County's agreement with Hopewell reserves for the County's use a treatment capacity of 0.75 MGD at the City's plant. Since the County currently estimates its flow to the City's treatment

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sewer lines, including those currently being installed, in the area Petersburg proposes to annex is \$4.2 million, with \$3.8 million being provided by the County. (Ibid.)

<sup>212</sup>Ibid. The total cost of the sewer lines, including those under construction, in the area Hopewell proposes to annex is \$2.1 million, of which amount the County has provided \$1.2 million through its own resources. Approximately 30-40% of the lines and connections served in the area Hopewell seeks to annex is also included within the territory proposed for annexation by Petersburg.

<sup>213</sup>Ibid.

<sup>214</sup>County Defense to Petersburg Annexation, Vol. I, pp. 70-72. Effluent from the County is received from areas south and east of Petersburg and mostly from property outside of the area proposed for annexation.

<sup>215</sup>Richard M. Brown, City Manager, City of Petersburg, letter to staff of Commission on Local Government, Apr. 14, 1986.

<sup>216</sup>County Defense to Petersburg Annexation, Vol. I, pp. 70-72.

plant at 0.25 MGD, it retains a treatment capacity of 0.50 MGD at that facility for future use.<sup>217</sup> Although this interlocal contract is due to expire in 1990, it will be automatically extended unless one of the jurisdictions gives a three-year notice of termination.<sup>218</sup>

City of Petersburg. The City of Petersburg owns and operates a sewage treatment plant constructed in 1955 and expanded in 1976.<sup>219</sup> This plant treats all effluent from within Petersburg and the City of Colonial Heights, as well as that from portions of Prince George, Dinwiddie, and Chesterfield Counties.<sup>220</sup> Since the Petersburg plant has a design capacity of 15 MGD and currently receives an average daily flow of 11 MGD, it retains a reserve capacity of 4 MGD to meet future needs.<sup>221</sup> The City's sewage treatment system also includes a second facility, capable of providing tertiary treatment, which serves a single subdivision annexed in 1972.<sup>222</sup>

In terms of its collection system, Petersburg owns and maintains approximately 155 miles of lines in the City serving 12,002

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<sup>217</sup>Hopewell Annexation Exhibits: Data, p. 52. The City's treatment plant receives effluent from properties south of Hopewell in the area proposed for annexation.

<sup>218</sup>County Defense to Hopewell Annexation, Vol. I, pp. 106-07.

<sup>219</sup>Petersburg Annexation Notice, Vol. I, p. 6-15. The cost for the expansion of the Petersburg treatment facility was \$2.2 million, with the City contributing \$625,000 from its own resources.

<sup>220</sup>Ibid., p. 6-15. The Petersburg's plant also receives and treats effluent from Central State Hospital and the Petersburg National Battlefield Park.

<sup>221</sup>Ibid. The current average daily flow to the City's plant is 73% of its treatment capacity. When the average monthly flow reaches 90% of treatment capacity, the City will be required to begin planning for an expansion of its treatment capacity. (See "Policy for Sewage Treatment Plant Loading in Virginia State Water Control Board, Statutes, Regulations, Policies and Other Documents Adopted By or Applicable to State Water Control Board, July 1982, p. P-1-1.

<sup>222</sup>Petersburg Annexation Notice, Vol. I, p. 6-17; and testimony of Brown, Proceedings, Oct. 29, 1985, p. 473. The City's sewerage system formerly included a lagoon serving the City jail located south

connections.<sup>223</sup> City officials have indicated that approximately 97% of the residencies and businesses in Petersburg are connected to its sewage collection system.<sup>224</sup> The City does not own or operate any collection lines within the area proposed for annexation and, therefore, does not serve directly any connections in that area.<sup>225</sup>

It is relevant to note that Petersburg's principal sewage treatment facility has in recent months repeatedly been in violation of the discharge limits imposed by its permit.<sup>226</sup> The City's difficulty with its sewage treatment facility is due, in part, to an inflow and infiltration problem which it is currently endeavoring to address.<sup>227</sup> Petersburg has recently negotiated a consent order with the State Water Control Board's Office of Enforcement by which the City will undertake a number of steps to bring its plant into compliance with its assigned discharge limits.<sup>228</sup>

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of the City beyond the area sought for annexation. Effluent from that correctional institution now is collected by a County-owned line on U. S. Route 460. (M. Guthrie Smith, Director of Public Works, City of Petersburg, letter to Charles R. Stitzer, Office of Enforcement, Virginia State Water Control Board, Feb. 14, 1986.)

<sup>223</sup>Petersburg Annexation Notice, Vol. I, p. 6-16; and Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>224</sup>Testimony of Brown, Proceedings, Oct. 28, 1985, p. 312. The City has advised that there are 384 septic tanks which continue to operate within its corporate boundaries. (Calvert, letter to staff of Commission on Local Government, July 1, 1985.)

<sup>225</sup>Petersburg Annexation Notice, Vol. I, p. 6-16.

<sup>226</sup>Richard N. Burton, Executive Director, State Water Control Board, letter to Brown, Feb. 7, 1986.

<sup>227</sup>It is relevant to note that the City of Petersburg expended \$459,000 during FY1980-81 - FY1984-85 to address the inflow and infiltration problem. Since some of the problem may be attributable to deficiencies in collection lines in other jurisdictions, resolution of the problem may require the assistance of other localities. (Calvert, letters to staff of Commission on Local Government, July 1, 1985 and Feb. 4, 1986.)

<sup>228</sup>Art Buehler, III, Piedmont Regional Office, Virginia State

In terms of the extension of service to the area proposed for annexation, Petersburg proposes to construct approximately 9.3 miles of sewer lines, costing \$1.8 million, during the first ten years after annexation.<sup>229</sup> The City's plans for the first four-year period after annexation include proposals to extend lines to the Riverdale subdivision and trailer park in the Puddledock area and to the Commonwealth Acres subdivision east of the City.<sup>230</sup> During the ensuing three-year period the City proposes to expend an additional \$550,000 to provide sewerage service to the King and Prince George Woods subdivisions and to extend service further into the Puddledock area.<sup>231</sup> Each of the projects which the City proposes to undertake during the seven-year period after annexation is listed in the County's current capital improvement plan and is scheduled to be initiated by the County prior to the end of FY1989-90.<sup>232</sup> This Commission is unaware of any current health problems in the area proposed for annexation by Petersburg due to sewage concerns.<sup>233</sup>

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<sup>229</sup>Petersburg Annexation Notice, Vol. I, p. 13-8; and ibid., Vol. III, Exh. P-10R. The City's plans to extend sewerage service to the area proposed for annexation includes the construction of four pump stations. In addition, through its various construction projects, Petersburg also proposes to purchase County facilities in the area. (The City's estimate of the cost to purchase these water lines is found in an exhibit entitled "Preliminary Estimate of Possible Total Cost to Purchase Utilities in the Area Proposed for Annexation - 1-1-86--1-1-87" which was filed with the Commission on Oct. 29, 1985.)

<sup>230</sup>Petersburg Annexation Notice, Vol. I, p. 13-8; and ibid., Vol. III, Exh. P-10R.

<sup>231</sup>Ibid.

<sup>232</sup>Elmore, letter to staff of Commission on Local Government, Oct. 21, 1985.

<sup>233</sup>County Defense to Petersburg Annexation, Vol. I, p. 73.

City of Hopewell. The City of Hopewell owns and operates two facilities which jointly constitute its sewage treatment system. The City has a primary treatment plant built in the 1950s and expanded in 1977 to its present design capacity of 6.5 MGD.<sup>234</sup> Since this facility has an average daily flow, based on 1980-1984 experience, of 4.98 MGD, it retains a reserve capacity of 1.5 MGD.<sup>235</sup> This primary treatment facility receives effluent from City collections lines, the Federal Correctional Institution, the Fort Lee military reservation, and portions of Prince George County.<sup>236</sup>

The second component of the City's treatment sewage treatment system is the Hopewell Regional Wastewater Treatment Facility (HRWTF), which was built in 1977 as a secondary treatment plant.<sup>237</sup> Since this facility has a design capacity of 50 MGD and an average daily flow, based on 1980-1984 experience, of 32.46 MGD, it retains an unused reserve of 17.54 MGD.<sup>238</sup> The HRWTF receives for secondary treatment the effluent processed by the City's primary treatment plant and, in addition, receives directly wastewater from Hopewell's five major industries.<sup>239</sup> Costs for the operation of the HRWTF are

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<sup>234</sup>Hopewell Annexation Exhibits: Data, p. 48.

<sup>235</sup>Perry, letter to staff of Commission on Local Government, Jan. 2, 1986.

<sup>236</sup>Hopewell Annexation Notice: Data, pp. 52-53. The City's primary treatment plant also receives directly discharge from one industrial firm.

<sup>237</sup>Ibid., pp. 48-49. The operations of the HRWTF are governed by a commission whose members include representatives of the City of Hopewell and industrial firms in that City. The commission contracts with the City of Hopewell for the management and operation of the HRWTF.

<sup>238</sup>Perry, letter to staff of Commission on Local Government, Jan. 2, 1986.

<sup>239</sup>Hopewell Annexation Notice: Data, p. 49.

prorated to the industries, Fort Lee, and the City of Hopewell.<sup>240</sup> As a result of a separate agreement between Hopewell and Prince George County, the County has been allotted a treatment capacity of 0.75 MGD in the City's system.<sup>241</sup>

In terms of its collection system, the City has 116 miles of sewer lines within its municipal boundaries serving 9,285 connections.<sup>242</sup> Hopewell does not extend any sewerage service directly to residents in the area it proposes to annex.

While the City of Hopewell proposes to purchase, if its annexation is ultimately approved by the court, the County's sewage collection lines in the area proposed for annexation, it does not propose any other sewerage construction projects during the first ten years after annexation.<sup>243</sup> The absence of any City proposal for the construction of additional sewerage facilities in the area proposed for annexation during the next decade, and the absence of such in the County's current capital improvement plan, suggest agreement by both jurisdictions that the existing sewerage needs of that area are being addressed.<sup>244</sup> Similarly, this Commission is aware of no major unmet

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<sup>240</sup>Ibid., p. 51. The cost for the construction of the HRWTF totaled approximately \$40 million. The construction funds came from the State, the U. S. Corps of Engineers, other federal grants, and local industries. The City of Hopewell's contribution to the regional project was its dedication of its primary treatment facility to the regional system.

<sup>241</sup>Ibid., p. 52.

<sup>242</sup>Hopewell Annexation Notice: Data, p. 53. The City's sewage collection system includes 15 pump stations.

<sup>243</sup>Hopewell Annexation Exhibits: Data Supplement, p. 12. The cost of County lines in the Jefferson Park and Stratford Woods subdivisions is currently estimated at \$536,000. The City has noted that its estimate of the value of these lines is based upon only general information.

<sup>244</sup>Both the City of Hopewell and Prince George County propose additional sewerage construction projects in the area in the latter part of the next decade.

sewerage needs in the area which Hopewell seeks to annex.<sup>245</sup>

Summary. While the Cities of Petersburg and Hopewell have the capacity to serve the areas proposed for annexation, the Commission finds no evidence of any major unmet sewerage needs in either of the areas proposed for annexation.

#### Solid Waste Collection and Disposal

Prince George County. Prince George County does not provide any solid waste collection service to its residents or business firms. There are, however, four private collection firms which do offer weekly residential collections service in the County.<sup>246</sup> It is significant to this Commission that Prince George County does impose some regulations on the operation of these private contractors, including requirements that the collection vehicles be enclosed and carry fire extinguishers.<sup>247</sup> Unlike many other Virginia counties, however, Prince George County does not utilize a "green box" system whereby receptacles are dispersed throughout the jurisdiction for solid waste disposal purposes.<sup>248</sup>

With respect to solid waste disposal, the County owns and operates a landfill located approximately one mile south of the City of Petersburg. This facility, which has a ten-year remaining life, is available for use by private citizens of the County without

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<sup>245</sup>Arthur B. Bradley, Jr., Sanitarian, Prince George County Health Department, communication with staff of Commission on Local Government, May 12, 1986.

<sup>246</sup>County Defense to Petersburg Annexation, Vol. I, p. 81. Charges for this private collection service average approximately \$8 per month.

<sup>247</sup>Prince George County Code, Ch. 16.

<sup>248</sup>County Defense to Petersburg Annexation, Vol. I, pp. 81-82. Some localities refuse to utilize "green box" systems because of the blight which they can create. Where these systems are established, they require careful and regular monitoring. It is significant to note that in 1985 Prince George County received an "Award of Excellence" in the Governor's Clean Community Awards Program. (Ibid., p. 82.) These awards are bestowed by the Virginia Division of Litter

charge.<sup>249</sup> We note, however, that in each of the three State inspections of this landfill between October 1984 and December 1985 that facility was determined to be in noncompliance with State regulations.<sup>250</sup> The State inspection held in January 1986 concluded that the County's landfill was marginally in compliance with State requirements.<sup>251</sup> State officials have indicated that the problems at the landfill appear to stem primarily from a shortage of equipment.<sup>252</sup>

City of Petersburg. The City of Petersburg provides its residents with twice-weekly curbside solid waste collection service financed by general fund revenues. The City also provides regular collections of brush, limbs, leaves, and, upon request, large and bulky items.<sup>253</sup> Petersburg also offers refuse collection service to commercial firms, with such service extending to four collections per week for businesses in the central business district and in the Walnut Hill

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Control to localities on the basis of the quality of their control program. In 1985 there were 18 such awards made to Virginia localities. (Jan C. Robertson, Deputy Commissioner, Virginia Division of Litter Control, communication with staff of Commission on Local Government, May 12, 1986.)

<sup>249</sup>County Defense to Petersburg Annexation, Vol. I, p. 82; and Crater Planning District Commission, Overview of Prince George County's Solid Waste Management System, June 1983.

<sup>250</sup>Harold J. Weiner, Regional Consultant, Division of Solid and Hazardous Waste, Virginia Department of Health, communication with staff of Commission on Local Government, Apr. 14, 1986.

<sup>251</sup>Ibid.

<sup>252</sup>Ibid.

<sup>253</sup>Petersburg Annexation Notice, Vol. I, p. 6-31. In order to encourage the disposal of solid waste by its residents, Petersburg has instituted a program whereby residents may borrow City refuse trucks for such purposes. In our judgment, this is a beneficial service which merits recognition. (See testimony of Brown, Proceedings, Oct. 28, 1985, p. 327.)

shopping area.<sup>254</sup> Businesses requiring more frequent collection and industrial firms with special needs are required to contract for such with private haulers.<sup>255</sup>

In terms of solid waste disposal, Petersburg operates a landfill in the eastern section of the City near its corporate boundary. This facility, which is available to residents for use without charge, has a remaining life of ten years.<sup>256</sup> State inspections of the Petersburg landfill have indicated that the facility is being operated in compliance with all applicable regulations.<sup>257</sup>

With respect to the extension of service to the area proposed for annexation, Petersburg has indicated its intention to provide residents and businesses in that area with the same level of service and frequency of collection as are currently being provided within the municipality. The City proposes to purchase two additional vehicles and to employ two additional personnel for the extension of service to the area proposed for annexation.<sup>258</sup>

City of Hopewell. The City of Hopewell utilizes the services of a private contractor for the collection of refuse from its residents and commercial establishments. Residential collections are made once weekly, with residents billed \$4.12 per month for this service by the City.<sup>259</sup> Commercial collections are available from one to six times a week, with the charge varying with the frequency of service

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<sup>254</sup>Petersburg Annexation Notice, Vol. I, p. 6-31; and testimony of Brown, Proceedings, Oct. 28, 1985, p. 326-27.

<sup>255</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>256</sup>Ibid.

<sup>257</sup>Robert H. Davis, Jr., Regional Consultant, Division of Solid and Hazardous Waste, Virginia Department of Health, communication with staff of Commission on Local Government, Apr. 16, 1986.

<sup>258</sup>Petersburg Annexation Notice, Vol. I, p. 13-5.

<sup>259</sup>Hopewell Annexation Exhibits: Data, p. 61. As part of the service provided its residents through this monthly charge, Hopewell

required. The City's contract with the private collector does not provide for collections from industrial firms.<sup>260</sup> It is significant to note that the City of Hopewell exercises, through the contract with the private hauler, considerable public oversight over the solid waste collection function. The City's contract with the private firm requires a performance bond, insurance on the firm's personnel and vehicles, the use of uniforms and badges by the firm's employees, the daily washing and disinfection of vehicles, and the resolution of citizen complaints within 24 hours.<sup>261</sup> These contractual provisions give the City a degree of control over the solid waste collection function not present in Prince George County.

In regard to solid waste disposal, the City owns and operates a landfill in the southeastern section of the City. This facility, which is available for use by residents without charge, has a remaining life of ten years.<sup>262</sup> State officials have advised that the Hopewell landfill has continually been operated in compliance with all State regulations.<sup>263</sup>

In terms of the extension of service to the area proposed for annexation, Hopewell has indicated its intention to extend to residents and businesses in that area, through its contract with the private hauler, the same services with the same frequency of collection as is provided within the municipality.<sup>264</sup> As part of that service,

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makes available to residents a mobile container for use in the collection and storage of residential refuse.

<sup>260</sup>Ibid.

<sup>261</sup>See City of Hopewell, Refuse Contract, Apr. 12, 1982.

<sup>262</sup>Hopewell Annexation Exhibits: Data, p. 61.

<sup>263</sup>Davis, communication with staff of Commission on Local Government, Apr. 16, 1986.

<sup>264</sup>Hopewell Annexation Exhibits: Data, p. 158.

the City proposes to purchase mobile receptacles for use by the area's residents.<sup>265</sup>

Summary. In our judgment, the solid waste collection and disposal services offered by the two municipalities exceed in quality that available to residents in Prince George County. As the areas proposed for annexation continue to experience development and urbanization, those areas will have an increasing need for a higher level of solid waste collection and disposal services.

#### Crime Prevention and Detection

Prince George County. The County's law enforcement services are provided through the Prince George County Sheriff's Department.<sup>266</sup> While the County does have stationed within its jurisdiction 18 members of the Virginia State Police, those State officers are not normally available to respond to minor criminal calls or to other noncriminal matters which consume a large percentage of the time and resources of local law enforcement agencies.<sup>267</sup> Further, local law enforcement agencies have no control over the patrolling patterns and activities of State police officers and cannot assign them to routine calls for service.<sup>268</sup>

The Prince George County Sheriff's Department has a personnel complement of 38, including 27 full-time sworn law enforcement

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<sup>265</sup>Hopewell Annexation Exhibits: Data Supplement, p. 33.

<sup>266</sup>The County has a Police Department staffed by nine officers. In recent years the Sheriff has served concurrently as Chief of Police and has commanded an integrated law enforcement effort in the County. (County Defense to Petersburg Annexation, Vol. I, pp. 91-92.)

<sup>267</sup>Ibid., p. 92. Prince George County does not provide any regular or routine law enforcement services on the premises of the Fort Lee military installation or the Federal Correctional Institution. The County's Sheriff's Department does serve civil process and, infrequently, criminal process on the federal properties.

<sup>268</sup>It is significant to note that of the 360 major crimes reported by persons in Prince George County in 1984 only five, or 1.4% of the total, were handled by the Virginia State Police. (Virginia Department of State Police, Crime in Virginia, 1984.)

personnel.<sup>269</sup> This staffing level is sufficient to provide the County with one sworn officer for each 552 residents residing on nonfederally-owned property in the County.<sup>270</sup>

For purposes of patrol activity, the County is divided into two districts with U. S. Route 460 serving as the line of demarcation between them.<sup>271</sup> The predominant portion of the areas proposed for annexation by Petersburg and Hopewell are included in the patrol district north of U. S. Route 460. Patrol service in the County is provided on the basis of three shifts (7:00 a. m. - 3:00 p. m., 3:00 p. m. - 11:00 p. m., and 11:00 p. m. - 7:00 a. m.), with each shift staffed by one sergeant and three deputies.<sup>272</sup> Two officers are generally assigned to each distinct patrol district.<sup>273</sup> Thus, the northern patrol district, which includes most of the area proposed for annexation, generally has a geographic intensity of patrol service on nonfederally-owned property equivalent to one officer for each 64.3 square miles of territory. One other measure of the intensity of the County's law enforcement services should be cited - the ratio of sworn officers to recorded "calls for service" made to the County's Sheriff's Department. Based on a recorded total of 6,882 "calls for

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<sup>269</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985; and Virginia Department of Criminal Justice Services, Law Enforcement Services in Petersburg, Hopewell, and Prince George County: A Report to The Commisison on Local Government (hereinafter cited as Law Enforcement Services Report), Mar. 1986, p. 1. Included in the total of sworn personnel are nine County police officers.

<sup>270</sup>This calculation is based on a 1984 population estimate of 14,900 persons residing on the nonfederally-owned property in the County.

<sup>271</sup>County Defense to Petersburg Annexation, Vol. II, Exh. 8.

<sup>272</sup>Ibid., Vol. I, p. 217. The County's patrol pattern is random but is adjusted in accordance with need.

<sup>273</sup>Testimony of John F. Atwood, Sheriff, County of Prince George, Proceedings, Nov. 15, 1985, p. 913.

service" during calendar year 1985, the Sheriff's Department received approximately 265 calls for each sworn officer serving the Department.<sup>274</sup>

In terms of crime prevention, the County Sheriff's Department has assigned one officer to such activity but has confined his work in that endeavor to nonduty hours.<sup>275</sup> The County does utilize, however, eight other deputies on a part-time basis for crime prevention presentations to citizen groups.<sup>276</sup> As part of its crime prevention efforts the County Sheriff's Department has established approximately eight neighborhood watches and, during 1985, conducted security surveys on the premises of 12 businesses.<sup>277</sup>

Any analysis of the quality of law enforcement services in a community requires consideration of the training and education of the personnel engaged in the provision of those services. In our judgment, there is no public service which requires a greater degree of maturity and personal development than law enforcement. The evidence indicates that new deputies joining the Prince George County Sheriff's Department are required to attend the 13-week basic training program at the Crater Criminal Justice Academy (CCJA) and, following graduation from that academy, are assigned to work with a patrol sergeant for an indefinite period prior to assignment for independent

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<sup>274</sup>Law Enforcement Services Report, p. 22. This calculation, and others presented later in this report regarding the Cities of Petersburg and Hopewell, excludes from the number of sworn officers, police cadets, dispatchers, and animal control personnel. The term "calls for service" in the law enforcement context includes everything from reports of major crimes to noncriminal request for assistance (e. g., missing child).

<sup>275</sup>Ibid., p. 9.

<sup>276</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985.

<sup>277</sup>Law Enforcement Services Report, p. 9. A County representative stated that there are eight neighborhood watches located in each of the areas proposed for annexation. (Goumas, letter to staff on Commission on Local Government, Oct. 18, 1985.) The State's Department of Criminal Justice Services has been able to identify only

service.<sup>278</sup> The County, does not, however, have any formal or structured program for the orientation of its personnel during this latter training experience.<sup>279</sup>

In terms of in-service training (i. e., that taken subsequent to the basic training), during 1985 the officers in the Prince George County Sheriff's Department received an average of 46 hours of training per person.<sup>280</sup> The training taken by personnel in the County Sheriff's Department has resulted in that agency having eight State-certified instructors.<sup>281</sup> In addition to such specialized State law enforcement training, the County Sheriff's Department encourages its personnel to pursue higher education courses; however, the Department does not provide any tuition reimbursement to assist with such an endeavor.<sup>282</sup>

With respect to law enforcement services in Prince George County,

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eight neighborhood watch programs throughout the entire County.

<sup>278</sup>County Defense to Petersburg Annexation, Vol. I, p. 93. While the Sheriff's Department does not send its recruits immediately to the CCJA, it does not permit those individuals to perform any law enforcement work until they have graduated from the Academy's basic training program. (Law Enforcement Services Report, p. 4.)

<sup>279</sup>Law Enforcement Services Report, p. 4.

<sup>280</sup>Ibid., p. 12. This statistic includes courses taken to meet the State mandated in-service training requirements, but it excludes from consideration all basic training and college level courses. The County's Chief of Investigators was one of the first officers in the Commonwealth to graduate from the Virginia Academy of Forensic Sciences.

<sup>281</sup>Ibid. The term "State-certified instructor" denotes those individuals who have completed 40 hours of compulsory instructor training in addition to having professional or proficiency skills directly related to criminal justice. (Virginia Criminal Justice Services Board, "Rules Relating to Certification of Criminal Justice Instructors," July 1983.)

<sup>282</sup>Ibid.

several additional points should be cited. First, we note that the Sheriff's Department anticipates the installation of an enhanced 911 system in 1989 which should improve the response time and effectiveness of its services.<sup>283</sup> Second, the County does have a standard operating procedures manual which is considered to be an important implement in the professional management of law enforcement services.<sup>284</sup> Third, the Commission has been advised that the County Sheriff's Department currently operates without adequate written directives addressing a number of high liability issues as prescribed by Commission on Accreditation for Law Enforcement Agencies.<sup>285</sup> Again, such written directives are considered important components of the professional management of law enforcement agencies. Finally, the data reveal the County expended a total of \$717,886 during FY1983-84 for law enforcement and traffic control services, an investment of \$46.62 per capita for those activities.<sup>286</sup>

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<sup>283</sup>Ibid., p. 7.

<sup>284</sup>John Schuiteman, Evaluation Specialist, Department of Criminal Justice Services, communication with staff of Commission on Local Government, May 20, 1986.

<sup>285</sup>Ibid., pp. 13-20. Among the policies not addressed in writing by the Prince George County Sheriff's Department is that relating to taking a juvenile into custody. (Standard 44.2.6) The use of the term "high liability" issues is used to denote the law enforcement activities which have the potential to generate a high incidence of citizen complaint, law suits, and court intervention. The existence of written policies on such issues is considered by law enforcement professionals to be appropriate and prudent. The Commission for Accreditation for Law Enforcement Agencies was formed in 1979 by the International Association of Chiefs of Police, the National Organization of Black Law Enforcement Executives, the National Sheriff's Association, and the Police Executive Research Forum. The Commission was established to increase (1) the capabilities of law enforcement agencies, (2) the effectiveness and efficiency of those agencies, (3) the cooperation and coordination among entities in the criminal justice system, and (4) public confidence in the goals and practices of law enforcement agencies.

<sup>286</sup>Law Enforcement Services Report, p. 25. The population figure used to calculate the per capita expenditure reflects residents of nonfederally-owned property (15,400).

City of Petersburg. Law enforcement services in the City of Petersburg are provided principally through the City's Police Department. That Department has a total personnel complement of 135, of which 88 are full-time sworn officers.<sup>287</sup> The full-time sworn personnel are assisted by the work of 20 auxiliary police who serve a minimum of 8 hours per month.<sup>288</sup> Based on the City's estimated 1984 population, Petersburg has a staffing level of one full-time sworn officer for each 464 City residents.

For purposes of patrol, the City is divided into five zones.<sup>289</sup> With respect to patrol patterns, the City Police Department has established three shifts (7:00 a. m. - 5:00 p. m., 4:00 p. m. - 2:00 a. m., 11:00 p. m. - 8:00 a. m.), with two alternating patrol squads assigned to each.<sup>290</sup> The City's staffing arrangements are such that each shift is served by a minimum of seven patrol officers and a sergeant at all times.<sup>291</sup> Such a staffing level provides the City of Petersburg with a general geographic intensity of patrol service equivalent to one officer for each 2.9 square miles of municipal territory. Moreover, it is significant to note that the City's patrol activities are directed by a concept known as "patrolling by objectives," which is considered by law enforcement specialists to constitute an effective means for the utilization of patrol resources. Another perspective regarding the overall intensity of the City's law enforcement services may be gained from examining the ratio between the number of sworn officers serving Petersburg and the number of

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<sup>287</sup>Petersburg Annexation Notice, Vol. I, p. 6-33.

<sup>288</sup>Ibid., p. 6-32. The City's auxiliary police are required to take 100 hours of basic training and an additional 40 hours of retraining each year.

<sup>289</sup>Ibid., p. 6-34.

<sup>290</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>291</sup>Ibid. The 4:00 p. m. - 2:00 a. m. shift is staffed by nine patrol officers and a sergeant. The evening and midnight shifts are

"calls for service" handled by the City's Police Department. Based on a total of 50,607 "calls for service" during calendar year 1985, the City's Police Department received 575 calls for each sworn officer serving the Department.<sup>292</sup>

In terms of crime prevention activities, the Petersburg Police Department has assigned two officers on a full-time basis for the development and management of such programs.<sup>293</sup> As part of its crime prevention efforts, the Police Department has assisted with the establishment of 63 neighborhood crime watch programs and, during 1985, conducted 157 residential and business security surveys to improve the protection given those properties.<sup>294</sup> In addition, the Department has approximately 15 officers who are specifically trained to present crime prevention programs to citizen groups.<sup>295</sup> In brief, the City of Petersburg maintains a significant and varied crime prevention program.

With respect to training and education, all new personnel selected for service with the Police Department are required to attend the 13-week basic training program at the CCJA. Following graduation from that academy, the new personnel are required to undergo two weeks of classroom training conducted by the City's Police Department for orientation to its operating policies and are then assigned to a formal ten-week training program under the supervision of field training officers.<sup>296</sup> The veteran officers in the City's Police Department

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assisted by canine units.

<sup>292</sup>Law Enforcement Services Report, p. 22. The number of sworn officers used in the calculation excludes police cadets, dispatchers, and animal control officers.

<sup>293</sup>Ibid., p. 8.

<sup>294</sup>Ibid., p. 9; and Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>295</sup>Petersburg Annexation Notice, Vol. I, p. 6-36.

<sup>296</sup>Law Enforcement Services Report, p. 11. The Petersburg Police Department places its new personnel on a one-year probation

who are assigned this training function are specifically trained for that assignment and are provided additional pay in recognition of their skills and value.<sup>297</sup>

In addition to the basic training given to each recruit, the officers in the City's Police Department receive a notable amount of training in excess of that mandated by State law. The Commission has been advised that during 1985 the officers on the City's Police Department received an average of 85 hours of State-certified training.<sup>298</sup> As a result of its emphasis on training, the City's Police Department now has in its ranks 25 State-certified instructors.<sup>299</sup> Further, the Police Department encourages its personnel to enroll in higher education courses and provides tuition reimbursement as an inducement to such efforts.<sup>300</sup>

Several other considerations should be noted regarding the activities of the Petersburg Police Department. First, the City intends to have in operation an enhanced 911 emergency response system before the end of 1986.<sup>301</sup> Second, the City's Police Department appears to be

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after completion of the field training program. This extended probationary period should increase the likelihood that officers accepted for permanent service by the Department are suited for law enforcement work.

<sup>297</sup>Ibid., p. 3.

<sup>298</sup>Ibid., p. 12. State regulations require each law enforcement officer in the Commonwealth to complete 40 hours of "in-service" training during each two-year period. (The Virginia Department of Criminal Justice Services, "Rules Relating to Compulsory In-Service Training Standards for Law Enforcement Officers.") The average State-certified training taken by Petersburg officers in 1985 was nearly double that taken by officers serving the Prince George County Sheriff's Department.

<sup>299</sup>Law Enforcement Services Report, p. 12.

<sup>300</sup>Ibid.

<sup>301</sup>Ibid., p. 7.

involved aggressively in developing new approaches to the provision of law enforcement services. As an example, the Department now operates a "tele-serve system" which permits citizens to report certain types of offenses by telephone, avoiding the necessity of sending officers to the scene in certain instances.<sup>302</sup> Third, the Petersburg Police Department has established an operating procedures manual which assists in the standardization of its operations.<sup>303</sup> Fourth, the Department has made a notable effort to develop the written policies addressing high liability issues as proposed by the Commission on Accreditation for Law Enforcement Agencies.<sup>304</sup> Finally, statistics indicate that the City expended a total of \$3,074,915 during FY1981-84 for law enforcement and traffic control activities, constituting a per capita investment of \$75.37 for such services.<sup>305</sup>

The Petersburg Police Department is, in our judgment, a professionally managed, well-trained, and effective law enforcement agency. In order to extend services to the area proposed for annexation, the City has indicated its intention to purchase six additional

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<sup>302</sup>Ibid., p. 6. This "tele-serve system" has been recognized as an effective technique for saving patrol time in such cities as St. Louis, Missouri; Denver, Colorado; and Dallas, Texas. (See William G. Gay, and Steven Schack, "Routine Patrol," in U. S. Department of Justice, Law Enforcement Assistance Administration, Improving Patrol Productivity, July 1977, pp. 71-72.)

<sup>303</sup>Petersburg Annexation Notice, Vol. I, p. 6-35.

<sup>304</sup>See Law Enforcement Services Report, Table A. Of the 30 principal areas of concern examined in this report, the City of Petersburg has developed appropriate written policies addressing 28 of them.

<sup>305</sup>Ibid., p. 25. Of this amount, \$2.26 million, or \$55.41 per capita were from local funds. The Commission has reviewed the data presented by the County intended to show the ineffectiveness and inefficiency of Petersburg's law enforcement services. (See County Defense to Petersburg Annexation, Vol. III, Tab 3.) The County's contention is founded upon a comparative analysis of the City's crime index, clearance rates, and expenditures for public services. The County's calculations, however, are based only on reported major crimes in the City and on the clearance rates for such crimes. Such major crimes constitute only a small part of the average locality's

police vehicles and to employ six additional officers.<sup>306</sup>

City of Hopewell. Law enforcement services in the City of Hopewell are provided principally by the City's Police Department, which has a personnel complement of 45 full-time and 2 part-time positions. Included in the personnel complement are 42 full-time sworn officers.<sup>307</sup> Based on that number of sworn officers and the City's 1984 population, Hopewell is served one sworn officer for each 576 City residents.

Included in the Department's personnel complement are 28 officers who are assigned patrol responsibility.<sup>308</sup> This patrol staff is divided into four platoons, with each consisting of seven officers (one lieutenant, one sergeant, and five patrol officers).<sup>309</sup> One platoon is assigned regularly to service on one of three duty shifts (8:00 a. m. - 5:00 p. m., 4:00 p. m. - 1:00 a. m., 11:00 p. m. - 8:00 p. m.).<sup>310</sup> Based on this staffing level Hopewell is generally provided a geographic intensity of patrol service equivalent to one officer for each 1.6 square miles of City territory. As noted previously, an alternative means of measuring the general intensity of law enforcement services in a locality is to consider the ratio between the number of sworn officers serving the community and the number

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law enforcement concerns. For example, in 1985 the City of Petersburg experienced only 3,678 major crimes but recorded 50,607 total "calls for service." Thus, the predominant share of Petersburg's law enforcement expenditures was addressed to activities other than major crimes. It is inappropriate to evaluate the effectiveness and efficiency of the City's Police Department on measures representing such a small part of its overall activity.

<sup>306</sup>Petersburg Annexation Notice, Vol. I, p. 13-1.

<sup>307</sup>Hopewell Annexation Exhibits: Data, p. 71.

<sup>308</sup>Ibid., p. 74.

<sup>309</sup>Ibid., p. 72.

<sup>310</sup>Ibid., p. 74.

of "calls for service" which those officers are required to address. Based on an estimated 15,756 "calls for service" in 1985, Hopewell's Police Department received an average of 375 calls for each sworn officer serving the Department.<sup>311</sup>

In terms of crime prevention, the City's Police Department has assigned one officer full-time and one officer part-time to the promotion of its programs.<sup>312</sup> The City's crime prevention efforts have resulted in the establishment of 14 neighborhood crime watch programs and, during 1985, nine home and business security surveys. In addition, officers of the Department made 39 crime prevention presentations to various citizen groups during calendar year 1985.<sup>313</sup>

With respect to training and education, the Hopewell Police Department sends its new recruits immediately to the CCJA for the 13-week basic training program. Following graduation from that academy, Hopewell assigns its new police officers to a formal six-week training program under the supervision of a field training officer.<sup>314</sup> The senior officers assigned to provide this field training supervision are carefully chosen for that responsibility and are paid a salary supplement for this additional service.<sup>315</sup> In addition to the training received by new recruits, officers in the Hopewell Police Department receive annually a significant amount of

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<sup>311</sup>Law Enforcement Services Report, p. 5. The calls for service handled by the City's police department in 1985 were projected on the basis of a five-month total of 6,565. The number of sworn officers used in this calculation excludes all police cadets, dispatchers, and animal control officers.

<sup>312</sup>Hopewell Annexation Exhibits: Data, p. 73.

<sup>313</sup>Ibid.; and Law Enforcement Services Report, p. 9-10.

<sup>314</sup>Hopewell Annexation Exhibits: Data, p. 71. New personnel joining the City's police department are placed on a one-year probation following their graduation from the CCJA.

<sup>315</sup>Law Enforcement Services Report, p. 3.

in-service training. The evidence indicates that during 1985 officers in the Hopewell Police Department received an average of 68 hours of State-certified training.<sup>316</sup> The extent of State-certified training undertaken by personnel of the Hopewell Police Department has resulted in nine of the Department's officers receiving certification as instructors.<sup>317</sup> Moreover, the Department encourages its officers to continue their education at institutions of higher learning and provides tuition reimbursement for those completing successfully a course related to their law enforcement activities.<sup>318</sup>

Several additional factors regarding Hopewell's law enforcement activities should be noted. First, the City will have in operation an enhanced 911 emergency service system before the end of June 1986.<sup>319</sup> Second, the City's Police Department has developed operating and policy manuals to guide the activities of its personnel.<sup>320</sup> We are obliged to note, however, that the Department's operating and policy manuals fail to include directives addressing a number of high liability issues as recommended by the Commission on Accreditation for Law Enforcement Agencies.<sup>321</sup> As an example of such policy omissions, the Hopewell Police Department does not currently operate under written directives establishing steps to be

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<sup>316</sup>Ibid., p. 11. This statistic includes all training taken to meet the State mandate of 40 hours of training each two-year period. This statistic excludes, however, all basic training and courses taken at the college level.

<sup>317</sup>Ibid., p. 12.

<sup>318</sup>Ibid. The Department provides a tuition reimbursement only in instances where an officer completes a course with a grade of "C" or better.

<sup>319</sup>Hopewell Annexation Exhibits: Data, p. 73.

<sup>320</sup>Ibid., p. 72.

<sup>321</sup>Law Enforcement Services Report, Table A.

followed in conducting preliminary and follow-up investigations.<sup>322</sup> Fourth, the data reveal that during FY1983-84 the City expended \$1,498,951 for law enforcement and traffic control functions, a fiscal commitment to such services equivalent to \$61.94 per capita.<sup>323</sup>

The City of Hopewell's Police Department is a professionally managed, well-trained, and appropriately staffed law enforcement agency. In order to address the needs of the area proposed for annexation, the City has indicated its intention to employ five additional law enforcement personnel.<sup>324</sup>

Summary. Both the City of Petersburg and the City of Hopewell have law enforcement agencies which can be expected to serve properly the areas proposed for annexation. Petersburg's Police Department, in particular, is well-managed, well-trained, and innovative in its approach to law enforcement concerns. While the data do not indicate any major unmet law enforcement concerns within the areas proposed for annexation, the continued development and urbanization of those areas will require more intensive law enforcement services as is provided by the Cities.

#### Fire Prevention and Protection

Prince George County. Fire prevention and protection services in Prince George County are provided through the efforts of four volunteer fire companies.<sup>325</sup> While the County exercises no formal control over these volunteer units, it does own all of the facilities and equipment which they operate.<sup>326</sup> Further, the County

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<sup>322</sup>Directives addressing preliminary and follow-up investigations are prescribed by Standards 42.2.2 and 42.2.3 respectively.

<sup>323</sup>Law Enforcement Services Report, p. 25. During FY1983-84, approximately \$1.14 million, or \$47.49 per capita, came from local funds.

<sup>324</sup>Hopewell Annexation Exhibits: Data, p. 158.

<sup>325</sup>County Defense to Petersburg Annexation, Vol. II, Exh. 9.

<sup>326</sup>Testimony of Kines, Proceedings, Nov. 15, 1985, pp. 989-90.

appropriates funds to meet the operating expenses of each volunteer fire company and provides insurance to protect the volunteers in their fire suppression work.<sup>327</sup>

The areas proposed for annexation by Petersburg and Hopewell are both within the first-run service area of the Prince George Volunteer Fire Company (PGVFC), which is located at the Prince George County Courthouse.<sup>328</sup> The PGVFC is served by approximately 35 volunteers who have available for their fire suppression work 2 pumpers, 1 tank truck, 1 brush truck, and 2 other vehicles.<sup>329</sup> The Commission has been advised that, due to the distances involved, the response time by the PGVFC to calls within its first-run service area during the period 1984-85 averaged between seven and nine minutes.<sup>330</sup>

In terms of training, we note that Prince George County does not have available a full-time training officer for the development of its volunteers, nor does it have a fire training facility for the training of those personnel.<sup>331</sup> The records of the State Department of Fire Programs indicate that 17 members of the PGVFC completed an average of 28 hours of State-certified training during 1985.<sup>332</sup> Although the

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The County Administrator has advised that he meets frequently with the Prince George County Fire Chiefs Association for purposes of liaison activities.

<sup>327</sup>County Defense to Hopewell Annexation, Vol. I; pp. 139, 141. Prince George County also provides medical examinations for the volunteers.

<sup>328</sup>Ibid., Vol. II, Exh. 9.

<sup>329</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985; and Hopewell Annexation Exhibits: Data, p. 160.

<sup>330</sup>County Defense to Hopewell Annexation, Vol. II, Exh. 9. A previous study found that between 1976 and 1978 the response time by the PGVFC was approximately ten minutes. (Virginia State Fire Services Commission, Prince George County Study, July 15, 1979.)

<sup>331</sup>Joe F. Thomas, Jr., Deputy Director, Virginia Department of Fire Programs, communication with staff of Commission on Local Government, Apr. 3, 1986.

<sup>332</sup>Virginia Department of Fire Programs, "Training Report -

County contends that all volunteers serving in its various volunteer fire departments must receive State certification as Fire Fighter 1, the records of the PGVFC indicate that only one individual serving that organization has achieved such certification.<sup>333</sup>

With respect to other fire suppression considerations, we note that the areas proposed for annexation by Petersburg and Hopewell contain 34 and 52 fire hydrants, respectively.<sup>334</sup> Based on the availability of those hydrants and the proximity of the PGVFC and the Hopewell Fire Department, four residential communities within the areas proposed for annexation by Petersburg and Hopewell have been assigned an Insurance Services Office (ISO) rating of "7."<sup>335</sup> All other sections of the areas proposed for annexation by the two cities have been assigned an ISO rating of "9."<sup>336</sup>

Prince George County's capital improvement plan includes funds for the construction of a satellite fire station in the Jefferson Park

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Prince George Volunteer Fire Department." The Department of Fire Programs training report is a computerized list of the State-certified training completed by members of various local fire departments.

<sup>333</sup>County Defense to Hopewell Annexation, Vol. I, p. 141; and Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985.

<sup>334</sup>Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Jan. 13, 1986. Some of these fire hydrants are included in both of the areas proposed for annexation. The VAWC owns more than 50% of the total number of hydrants within the areas proposed for annexation. (Ibid.)

<sup>335</sup>County Defense to Hopewell Annexation, Vol. I, p. 144; and Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985. The Lee Plaza area and the Jefferson Park and Jefferson Circle subdivisions qualify for an ISO rating of "7" by virtue of their proximity to Hopewell fire stations. The Birchett Estate subdivision has been accorded an ISO rating of "7" as a result of its proximity to the PGVFC. (Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985.)

<sup>336</sup>The ISO rating is based on a scale of "1" to "10" and is used in the comparison of municipal fire protection system. The rating is a measure of a system's ability to defend against a major fire which may be expected in any given community. Where a rating of

subdivision just west of Hopewell's present corporate limits.<sup>337</sup> County officials have testified that the property on which the station is to be built has been acquired and that construction of the facility is expected to begin in June 1986.<sup>338</sup> This facility would affect the ISO rating assigned to residential properties in the area and should reduce response times to fire calls from adjacent communities.

Several other factors regarding the County's fire prevention and protection services should be noted in this report. First, the County has not adopted a fire prevention code for the protection of its properties.<sup>339</sup> Second, the overall management of the County's fire suppression and prevention activities would be improved by the County's employment of a Fire Chief to coordinate the work of the different volunteer units. Third, the County has not adopted a standard operating procedures manual which should be beneficial in standardizing the work of the various volunteer units.

In sum, fire prevention and fire protection services in Prince George County are provided solely by volunteer units who function without full-time professional management and oversight. The services available to the nonfederal properties in the areas proposed for annexation are typical of those found in rural settings.

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"10" is assigned, there is usually no or minimal protection against such a fire. Where a rating of "1" is assigned, the fire protection system protecting the jurisdiction is one of extreme capability. The principal features used by ISO in grading a community's fire system are water supply, the fire suppression personnel and equipment, fire communications, and fire safety control. [John L. Bryan and Raymond C. Picard, Managing Fire Services (Washington, D. C.: International City Management Association, 1979), p. 102.] Residential properties located more than five road-miles from a fire station are automatically assigned a protection class of "10" by the ISO.

<sup>337</sup>County Defense to Hopewell Annexation, Vol. I, p. 144.

<sup>338</sup>Testimony of Kines, Proceedings, Nov. 15, 1985, p. 945. This facility will be made part of the PGVFC.

<sup>339</sup>County Defense to Hopewell Annexation, Vol. I, p. 139. The Commission has been advised that the County Board of Supervisors intends to adopt a fire prevention code prior to the end of the

City of Petersburg. Fire prevention and protection services in the City of Petersburg are provided by the City's Fire Department which has a personnel complement consisting of 113 full-time paid positions.<sup>340</sup> This staff has available for its fire suppression work 11 principal pieces of apparatus, including 7 pumpers and 2 aerial ladders.<sup>341</sup> The activities of the Petersburg Fire Department are conducted through four stations, with the largest concentration of personnel and equipment being located at Station No. 2 on Market Street near the City's central business district.<sup>342</sup> As a result of its staffing levels and the dispersion of its facilities, the City's Fire Department recorded an average response time to fire calls in 1983 of 4.5 minutes.<sup>343</sup> Due to the City's overall fire suppression capabilities, residential properties in Petersburg have been given an ISO rating of "4," reflecting a significant level of fire protection.<sup>344</sup>

With respect to training, the record indicates that the Petersburg Fire Department has a full-time training officer who coordinates the training activities of departmental personnel.<sup>345</sup> The City also owns and maintains its own fire training facility for the development of its personnel.<sup>346</sup> State training records indicate that 60

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current calendar year.

<sup>340</sup>Petersburg Annexation Notice, Vol. I, p. 6-40.

<sup>341</sup>Ibid., pp. 6-43-44.

<sup>342</sup>Ibid., pp. 6-41-42; and ibid., Vol. III, Exh. P-13.

<sup>343</sup>Calvert, letter to staff of Commission on Local Government, Jul. 1, 1985.

<sup>344</sup>Petersburg Annexation Notice, Vol. I, p. 6-47.

<sup>345</sup>Ibid. The City's training officer is a State-certified Fire Instructor IV. This classification is the highest bestowed by the State in this category.

<sup>346</sup>Ibid., p. 6-45.

Petersburg Fire Department personnel received an average of 30.9 hours of State-certified training during 1985.<sup>347</sup> Moreover, it is significant to this Commission that the average State-certified training received by personnel serving the Petersburg Fire Department during their careers is 381 hours.<sup>348</sup> Such extensive training has resulted in many of the Department's personnel having State certification in multiple categories.

In regard to other relevant considerations, the City of Petersburg has adopted a fire prevention code for the protection of its residents and property.<sup>349</sup> Further, the City maintains an active fire safety program for presentation to the City's schools and other groups. Furthermore, the Petersburg Fire Department has developed a standard operating procedures manual which contributes to the effective administration of its operations. In sum, the Petersburg Fire Department is a well trained, professionally administered, and effective instrument serving the City.<sup>350</sup>

In terms of service to the area proposed for annexation, the City has stated its intention to construct a new fire station on East Washington Street near its present eastern boundary and to employ 18 new firefighters and to purchase a pumper for service at the new facility. The City has also indicated its intention to reactivate its recently closed fire station in the southeastern section of the City

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<sup>347</sup>Virginia Department of Fire Programs, "Training Report - Petersburg Fire Department."

<sup>348</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985. Three of the personnel serving in the City's Fire Department have Associate Degrees in Fire Technology, and others are currently enrolled in courses leading to such a degree.

<sup>349</sup>Petersburg Annexation Notice, Vol. I, p. 6-45. The City's fire prevention code is enforced by a Fire Marshall and two full-time inspectors.

<sup>350</sup>By contract with Prince George County the City's Fire Department serves a portion of the County south of Petersburg's corporate limits. (Petersburg Annexation Notice, Vol. I, p. 6-42.) The City's Fire Department has not responded to a call within the last

near U. S. Route 460. This station will also require 18 additional firefighters and a new pumper to serve the expanded City.<sup>351</sup>

City of Hopewell. Fire prevention and protection services in the City of Hopewell are provided by the City's Fire Department. This Department has available a personnel complement consisting of 37 full-time paid positions. This staff has available 5 pumpers, 1 aerial ladder, and auxiliary equipment for its fire suppression activities.<sup>352</sup> The City's Fire Department conducts its operations through two separate stations, with one being located adjacent to the central business district and the other located in the southwestern part of Hopewell. Both stations recorded response times for the period of 1984-85 of less than four minutes per call.<sup>353</sup> The City's fire suppression capabilities are such that residential properties in Hopewell have been given an ISO rating of "4."<sup>354</sup>

With respect to training, the Hopewell Fire Department employs a full-time training officer for the coordination of its various training activities.<sup>355</sup> Moreover, the City owns and operates its own fire training facility for the training of its personnel. As a

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five years from within the area it proposes to annex. (Calvert, letter to staff of Commission on Local Government, July 1, 1985.)

<sup>351</sup>Petersburg Annexation Notice, Vol. I, pp. 13-1-2; and ibid., Vol. III, Exh. P-14.

<sup>352</sup>Hopewell Annexation Exhibits: Data, pp. 78, 80. The various major industries in the City of Hopewell maintain fire brigades which give those industries a first echelon fire suppression capability.

<sup>353</sup>Ibid., p. 83. Station No. 1 in the central business district had an average response time during the two-year period of 3.27 minutes, while Station No. 2 in the Woodlawn subdivision had an average response time during that interval of 3.55 minutes.

<sup>354</sup>Testimony of Clinton H. Strong, City Manager, City of Hopewell, Proceedings, Nov. 14, 1985, p. 315.

<sup>355</sup>Hopewell Annexation Exhibits: Data, p. 81. Hopewell's training officer has been certified by the State as a Fire Instructor III.

result of the City's promotion of training, State records indicate that 37 personnel serving the Hopewell Fire Department completed during 1985 an average of 146 hours of State-certified training.<sup>356</sup> The degree of training undertaken by personnel serving the Hopewell Fire Department has resulted in many of those individuals receiving State certification in numerous categories.<sup>357</sup> In regard to other considerations, the Commission notes that Hopewell has an adopted fire prevention code for the protection of its residents and property.<sup>358</sup> Further, the Hopewell Fire Department has developed a standard operating procedures manual to promote the standardized administration of its activities.<sup>359</sup> In brief, the City of Hopewell is served by a professionally managed and well-trained Fire Department.

In terms of service to the area proposed for annexation, the City has stated its intention to expand its fire station in the Woodlawn subdivision, to purchase a new pumper, and to employ an additional 12 firefighters to serve the enlarged City.<sup>360</sup> It is relevant to note that the Hopewell Fire Department routinely responds, at the present time, to fire calls from the Jefferson Park subdivision, the Lee Plaza area, and two trailer parks south of the City.<sup>361</sup> Thus, Hopewell is already assisting with fire suppression service in the area.

Summary. Both the City of Petersburg and the City of Hopewell have fire suppression capabilities surpassing those provided by the

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<sup>356</sup>Virginia Department of Fire Programs, "Training Records - Hopewell Fire Department."

<sup>357</sup>Hopewell Annexation Exhibits: Data, p. 81.

<sup>358</sup>Ibid., p. 82.

<sup>359</sup>Ibid.

<sup>360</sup>Hopewell Annexation Exhibits: Data Supplement, p. 33. The City proposes to acquire the new pumper during the fifth year after the effective date of annexation.

<sup>361</sup>Ibid., p. 79. The City's Fire Department responds to an average of two calls per month from within the area proposed for annexation.

volunteer units serving Prince George County. Both of the Cities are capable of serving the areas they propose to annex. In our judgment, those areas would benefit from an extension of municipal service as well as from the application of the Cities' fire prevention policies.

#### Public Recreation

Prince George County. Public recreational facilities and programs in Prince George County are administered by the County's Department of Parks and Recreation established in 1977.<sup>362</sup> In terms of facilities, the Department of Parks and Recreation operates eight park sites, containing a total of 31.1 acres, and utilizes a number of school properties in its provision of recreational services.<sup>363</sup> Additional recreational opportunities are available to Prince George County residents through facilities owned by neighborhood associations and other private entities in the County.<sup>364</sup>

With respect to those recreational facilities immediately available to residents of the areas proposed for annexation, the Commission notes that there are five County-owned park sites (totaling 26.6 acres) in or adjacent to the area proposed for annexation by Petersburg and four such sites (totaling 24.5 acres) in or adjacent to the area sought for annexation by Hopewell.<sup>365</sup> In addition to the

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<sup>362</sup>County Defense to Petersburg Annexation, Vol. I, p. 120.

<sup>363</sup>Ibid., pp. 228-29; and Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985. Seven of the County's eight park sites were deeded to the County by developers. It is relevant to note that according to the recommendations of Virginia Commission of Outdoor Recreation the suggested area standard for local recreation and park sites in Virginia is ten acres per 1,000 population. (Virginia Commission of Outdoor Recreation, Outdoor Recreation Planning Standards for Virginia, 1980.) Measured by this standard, Prince George County requires an additional 123 acres of parkland to meet the needs of its residents residing on nonfederally-owned property.

<sup>364</sup>County Defense to Petersburg Annexation, Vol. I, pp. 228-29.

<sup>365</sup>Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Jan. 13, 1986. These totals include sites located

above facilities, the County has advised that there are seven school sites in or adjacent to the area Petersburg proposes to annex (totaling 15 acres) and five such sites in the area Hopewell proposes to incorporate (totaling 12 acres) which the County also utilizes to meet the recreational needs of its residents.<sup>366</sup> Further, it is significant to note that various developers, as a result of the County's subdivision review process, have dedicated other sites in or adjacent to the areas proposed for annexation for recreational purposes.<sup>367</sup> While some of these properties are yet to be developed for recreational purposes, their dedication for possible recreational use should be noted.<sup>368</sup>

In terms of programs, the County's Department of Parks and Recreation employs four full-time personnel and a number of seasonal

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within five road-miles of the areas proposed for annexation. Included in the acreage in each of the areas proposed for annexation is a 14-acre park, Scott Memorial Park, at the Prince George Courthouse. This facility, which received an award from the National Association of Counties, contains a softball field, a playground, a volleyball court, and a picnic shelter. (County Defense to Petersburg Annexation, Vol. I, p. 121.) Although the Scott Memorial Park was developed with the assistance of a \$68,000 grant from the State, Prince George County expended approximately \$121,000 in local funds for its construction. (Jerry L. Cassidy, Grants Administrator, Virginia Division of Parks and Recreation, letter to staff of Commission on Local Government, May 19, 1986.)

<sup>366</sup>Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Jan. 13, 1986. Recreational fields at the Prince George County High School are included in the acreage for both of the areas proposed for annexation.

<sup>367</sup>Prince George County Subdivision Ordinance states that upon recommendation of the planning commission, the County's subdivision agent may require subdividers of residential subdivisions to dedicate to the County up to 10% of the area of the subdivision for parks or playgrounds. (See Prince George County Code, Sec. 17-37.)

<sup>368</sup>Under this dedication process seven sites, totaling 29.7 acres, in the area Hopewell proposes to annex have been dedicated for future recreational usage. No properties have been dedicated by developers for recreational purposes within the area Petersburg proposes to annex. (Goumas, letter to staff of Commission on Local Government, Jan. 13, 1985; and County Defense to Petersburg Annexation, Vol. I,

workers in the provision of its recreational services.<sup>369</sup> With the assistance of that staff, the Department of Parks and Recreation promotes the operation of organized athletic leagues and sponsors other recreational activities (e. g., aerobics, crafts, photography).<sup>370</sup> With respect to overall financial support for its public recreational services, we note that Prince George County expended \$83,628 during FY1983-84 for its parks and recreational programs.<sup>371</sup> Thus, exclusive of the population residing on federally-owned property, the County expended \$5.43 per capita for recreational services during that fiscal year.<sup>372</sup>

City of Petersburg. Public recreational services in Petersburg are extended to City residents through the operations of two separate departments, the Department of Parks and the Department of Recreation.<sup>373</sup> The City's Department of Parks owns and maintains 583 acres of parkland, consisting of 18 separate facilities, within Petersburg's corporate boundaries.<sup>374</sup> Included in the recreational facilities located on that parkland is an extensive array of baseball diamonds, athletic fields, and tennis and basketball courts, as well

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pp. 228-29.)

<sup>369</sup>County Defense to Petersburg Annexation, Vol. I, p. 120.

<sup>370</sup>Ibid., p. 226; and Goumas, letter to staff of Commission on Local Government, Jan. 13, 1986. Augmenting the County's recreational efforts is a mobile playground unit which visits different sites in the County one day each week.

<sup>371</sup>Auditor of Public Accounts, Comparative Report of Local Government Revenues and Expenditures, Year Ended June 30, 1984.

<sup>372</sup>This per capita expenditure is based on a 1984 population estimate of 15,400 persons residing on nonfederally-owned property in Prince George County. The per capita expenditure for recreational services in all Virginia counties during FY1983-84 was \$12.56 per capita.

<sup>373</sup>Petersburg Annexation Notice, Vol. I, p. 6-48.

<sup>374</sup>Calvert, letter to staff of Commission on Local Government July 1, 1985. The aggregate amount of City-owned parkland (583 acres)

as two swimming pools and two recreation centers.<sup>375</sup>

In addition to the above-mentioned facilities, the City of Petersburg utilizes for public recreational purposes 79 acres of property at eight school sites. Included on this property is an assortment of baseball/softball diamonds, tennis and basketball courts, large athletic fields, and three gymnasiums.<sup>376</sup> Further, the recreational needs of City residents are served, in part, by a park owned by the Petersburg Redevelopment and Housing Authority, and privately-owned recreational facilities.<sup>377</sup>

For the provision of recreational services, the City's Department of Recreation employs 6 full-time, 19 part-time, and 77 seasonal employees in its various program.<sup>378</sup> The City's recreational activities include the sponsorship of a number of athletic leagues for youths and adults, a variety of instructional programs, special senior citizen activities, and other special events.<sup>379</sup> In brief, the City's Department of Recreation offers a comprehensive recreational program designed to meet the needs of all population segments.

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exceeds the recommended State standard of ten acres per 1,000 residents by 175 acres. (See Outdoor Recreation Planning Standards for Virginia.)

<sup>375</sup>Testimony of Brown, Proceedings, Oct. 28, 1985, p. 340. The Lee Park/Wilcox Lake Complex (326 acres) is the largest recreational facility operated by the City. This complex contains 3 softball/baseball fields, 5 tennis courts, and 2 basketball courts.

<sup>376</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985; and testimony of Brown, Proceedings, Oct. 28, 1985, p. 348.

<sup>377</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>378</sup>Petersburg Annexation Notice, Vol. I, p. 6-48; and testimony of Brown, Proceedings, Oct. 28, 1985, p. 337.

<sup>379</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

A measure of the extent of the City's recreational services may be gained from an examination of Petersburg's expenditures for such activities. The evidence indicates that during FY1983-84 the City expended a total of \$970,610 on its parks and recreational programs.<sup>380</sup> This level of expenditure represented an investment by the City of Petersburg of \$23.97 per capita for public recreational services.<sup>381</sup> In this regard, this Commission has noted the County's contention that the City's expenditures for parks and recreation reflect inefficiencies in its management of those activities. In our judgment, the evidence does not support this County contention.<sup>382</sup>

The City of Petersburg does not propose the construction of additional recreational facilities to serve the area sought for annexation. Its existing facilities will, however, be made available to the residents of all areas brought within the City's jurisdiction.

City of Hopewell. Recreational services in the City of Hopewell are managed and directed by the City's Recreation and Parks Department.<sup>383</sup> This Department manages 46.3 acres of parkland consisting of eight parks and a community center.<sup>384</sup> Located at those

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<sup>380</sup>Comparative Report of Local Government Revenues and Expenditures, Year Ended June 30, 1984.

<sup>381</sup>This per capita expenditure was based on the City's 1984 population estimate. The average expenditure for recreational services in all Virginia cities during FY1983-84 was \$27.78 per capita.

<sup>382</sup>The County has contended that 62% of the City's recreation budget for FY1983-84 was expended for "administration." (County Defense to Petersburg Annexation, Vol. I, pp. 55-57.) The City has noted that included in its recreational expenditures classified as "administration" are funds supporting the employment of seasonal personnel who are directly engaged in the provision of recreational services. Exclusive of the funds expended in support of its seasonal employees, approximately 29% of the City's recreational budget was allocated for actual administrative activities. (Testimony of Brown, Proceedings, Oct. 28, 1985, pp. 339-40.)

<sup>383</sup>Hopewell Annexation Exhibits: Data, p. 91.

<sup>384</sup>Ibid., pp. 97-99. The Community Center, which opened in 1981, was constructed at a cost of \$2.9 million.

various facilities is an extensive number of basketball and tennis courts, picnic shelters, playground equipment, and, at the Community Center, an indoor swimming pool.<sup>385</sup> In addition to the above-cited facilities, the City utilizes 101.1 acres of property at 11 sites owned by the school board for public recreational services. Located on these properties is an array of baseball/softball diamonds and large athletic fields.<sup>386</sup> Moreover, City residents also have available for their recreational pursuits 3.3 acres of parkland owned by the Hopewell Redevelopment and Housing Authority.<sup>387</sup>

For the conduct of its various recreational activities, the City's Recreation and Parks Department employs 14 full-time personnel and 28 part-time and seasonal workers.<sup>388</sup> With the assistance of that staff, the City supports a number of organized athletic leagues for youths and adults, a variety of recreational programs, senior citizen activities, and numerous special events.<sup>389</sup> During FY1983-84 the City of Hopewell expended \$694,000 on its parks and recreational activities.<sup>390</sup> This level of expenditure reflected an investment by Hopewell of \$28.83 per capita for recreational services.<sup>391</sup>

The City of Hopewell does not propose the construction of any new

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<sup>385</sup>Ibid., p. 92. The City's largest recreational facility is the Atwater Park (18 acres).

<sup>386</sup>Ibid., pp. 92, 97-99.

<sup>387</sup>Ibid., pp. 97-99. Based upon the average of park and recreation sites owned by Hopewell (46.3 acres), the City fails to meet the State's recommended standard of ten acres of parkland per 1,000 population by almost 200 acres. (See Outdoor Recreation Planning Standards for Virginia.)

<sup>388</sup>Hopewell Annexation Exhibits: Data, pp. 91-95.

<sup>389</sup>Ibid., pp. 91-93.

<sup>390</sup>Comparative Report of Local Government Revenues and Expenditures, Year Ended June 30, 1984.

<sup>391</sup>This per capita expenditure was based on Hopewell's 1984 population estimate of 24,100 persons. During FY1983-84 the per capita expenditure for recreational services in all Virginia cities,

recreational facilities to serve the area is seeks to annex. In this regard it should be noted, however, that the City's recreational facilities are currently utilized by a significant number of nonresidents.<sup>392</sup>

Summary. The recreational facilities and services of both Cities exceed in number and variety those provided by the County to its residents. Further, the Cities have made a significantly greater financial commitment to public recreational services than has Prince George County. In our judgment, as the areas proposed for annexation continue to develop and urbanize there will be an increasing need for a higher level of public recreational facilities and program to serve the needs of its residents.

#### Library Facilities and Services

Prince George County. In 1974 the City of Hopewell, Prince George County, and Dinwiddie County, established the Appomattox Regional Library (ARL) for the extension of library services to their residents.<sup>393</sup> The ARL, which maintains its central library facility in the City of Hopewell, operates two branch stations in Prince George County, neither of which is located within the areas proposed for annexation by Petersburg and Hopewell.<sup>394</sup> The ARL also extends library services to Prince George County residents through bookmobiles which make two bi-weekly stops in the area proposed for annexation by

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considered collectively, was \$27.78.

<sup>392</sup>The City has advised that over 3,100 nonresidents maintain membership in the Community Center. (Hopewell Annexation Exhibits: Data, pp. 93-94.)

<sup>393</sup>County Defense to Hopewell Annexation, Vol. I, p. 175. The City of Hopewell and Prince George County have cooperated in the provision of library services to their residents since 1931.

<sup>394</sup>The ARL maintains small facilities at Disputanta and Carson. Each of those facilities contains approximately 7,000 books.

Petersburg and two bi-weekly stops within the area sought for annexation by Hopewell.<sup>395</sup>

Statistics published by the Virginia State Library for FY1983-84 indicate that the ARL had a total book collection of 71,119 volumes, an annual book circulation of 156,877 volumes, and 18,784 registered borrowers.<sup>396</sup> The ARL was staffed during FY1983-84 by ten full-time personnel (including two certified librarians) and five part-time employees. During FY1983-84 the ARL received a total of \$436,560 for the provision of library services, with approximately \$70,000 being provided by Prince George County.<sup>397</sup> Data submitted by Prince George County reveal that County residents not only utilize the ARL facilities located in Prince George County, but constitute a significant percentage of the patrons utilizing the system's principal facility in the City of Hopewell.<sup>398</sup>

City of Petersburg. The City of Petersburg's library system, which was established in 1924, currently consists of a central library

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<sup>395</sup>Ibid., Vol. II, Exh. 12. The two bookmobile stops within the area of Petersburg proposed to annex are located southeast of Fort Lee. The two stops in the area Hopewell seeks to annex are located in the Birchett Estates subdivision.

<sup>396</sup>Virginia State Library, Statistics of Virginia Public Libraries and Institutional Libraries, 1983-1984 (hereinafter cited as Statistics of Virginia Public Libraries), 1985. This State publication indicates that, with respect to bookholdings, the ARL provides 0.99 volumes per resident, a figure substantially less than the minimum standards prescribed by the Virginia State Library. The Virginia State Library recommends that systems serving a population equal to that served by the ARL have bookholdings equivalent to 2-3 books per capita. (Virginia State Library, "Recommended Minimum Standards for Virginia Public Libraries.") The Virginia State Library statistical compilation for FY1983-84 discloses that the ARL maintain 4,807 non-book items in its collection.

<sup>397</sup>Statistics of Virginia Public Libraries. The ARL received approximately \$123,000 from the State in support of its library services during FY1983-84.

<sup>398</sup>County Defense to Hopewell Annexation, Vol. I, p. 178. The County has advised that between October 1984 and April 1985 approximately 26% of the circulation from the central facility in Hopewell was

in downtown Petersburg and two branch facilities in the southeastern and southwestern sections of the City.<sup>399</sup> Virginia State Library statistics indicate that during FY1983-84 the Petersburg library system contained a total book collection of 104,932 volumes, experienced a total book circulation during that fiscal year of 123,630 volumes, and had 7,425 registered borrowers.<sup>400</sup>

The City's library system is staffed by 17 full-time personnel (including 4 certified librarians) and 5 part-time employees.<sup>401</sup> The Petersburg library system received during FY1983-84 a total of \$512,317 for the provision of library services, with \$415,488 (81.1% of the total) being provided from local sources.<sup>402</sup> The City does not propose the construction of any new facilities nor an increase in its staff to serve the area it seeks to annex.

City of Hopewell. As noted previously, library services in the City of Hopewell are provided through the Appomattox Regional Library (ARL), which is jointly supported by the City and the Counties of Prince George and Dinwiddie. It is relevant to note that the ARL's central facility is located near Hopewell's central business district and that City residents are also served by bookmobiles which make two bi-weekly stops within the municipality.<sup>403</sup> During FY1983-84 the

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due to borrowings by County residents. (Ibid.)

<sup>399</sup>Petersburg Annexation Notice, Vol. I, p. 6-50; and ibid., Vol. II, Exh. P-6.

<sup>400</sup>Statistics of Virginia Public Libraries. The Petersburg Library has bookholdings equivalent to 2.61 volumes per resident. The standard prescribed by the Virginia State Library for system serving a population of 50,000 is 3 volumes per resident. ("Recommended Minimum Standards for Virginia Public Libraries.") The State's statistical compilation for FY1983-84 discloses that the Petersburg library held 7,963 nonbook items in its collection.

<sup>401</sup>Statistics of Virginia Public Libraries.

<sup>402</sup>Ibid. Most of the local monies supporting the Petersburg library system were provided by City appropriations.

<sup>403</sup>Hopewell Annexation Exhibits: Data, p. 105.

City of Hopewell was responsible for approximately 44.4% (\$139,416) of the local funds generated to support the ARL.<sup>404</sup> As a result of the regional system serving Hopewell and Prince George County, the proposed annexation would not affect the provision of library services to the affected residents.<sup>405</sup>

Summary. While both Cities invest substantially more in the provision of library services than Prince George County, in our judgment, Prince George County is adequately responding to the library needs of its residents.

#### Streetlighting

Prince George County. Prince George County's subdivision ordinance requires the installation of streetlights in new subdivisions of five lots or more. The operating and maintenance costs of such streetlights are assumed by the County when the subdivision roads are accepted into the State's road system.<sup>406</sup> In addition, the County considers requests from citizens for the installation and operation of additional streetlights in other portions of its jurisdiction. If such lights are considered appropriate, the County arranges for their installation and operation and bills the residents for such costs. The County will, however, bear with public resources the costs for such facilities if they are deemed necessary to protect "the health, safety and welfare of the affected residents."<sup>407</sup> As a result of

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<sup>404</sup>Statistics of Virginia Public Libraries.

<sup>405</sup>Data for the period October 1984 - October 1985 indicate that 53% of the ARL's total circulation was due to borrowing by City residents. (County Defense to Hopewell Annexation, Vol. I, p. 178.)

<sup>406</sup>See Proposed Street Lighting Requirements adopted at the Jan. 28, 1975 Prince George County Board of Supervisors meeting. It is relevant to note that developers are also required to pay for the installation of streetlights when additions are made to existing subdivisions.

<sup>407</sup>Ibid., Sec. 4.

the application of these policies, there are 306 streetlights operating in Prince George County, with 61 lights being located within the area Petersburg seeks to annex and 85 lights existing within the area Hopewell proposes to annex.<sup>408</sup>

City of Petersburg. The City of Petersburg's subdivision ordinance requires the installation of streetlights along all major streets; in districts zoned for multi-family, hotel, commercial, and industrial usage; and in other locations where they are deemed necessary in the "interest of safety and security for persons, property or traffic."<sup>409</sup> Petersburg also receives and considers on a quarterly basis requests from residents for the installation of streetlights in other portions of the City. If a determination is made that such streetlights serve a public need, the City will, if funds are available, install such at public expense.<sup>410</sup> As of March 1985, City officials reported that there were 2,789 streetlights in the City.<sup>411</sup>

Petersburg has indicated its intention to install and to pay the operating costs for 100 streetlights in the area it proposes to annex. These lights would be concentrated along the major thoroughfares in that area, including State Routes 36, 106, 629, and 645.<sup>412</sup>

City of Hopewell. The City of Hopewell adheres to a general policy which calls for the installation and operation, at public

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<sup>408</sup>Goumas, letters to staff of Commission on Local Government, Oct. 18, 1985 and Dec. 31, 1985. Thirty-four streetlights are concurrently included within the totals for both areas proposed for annexation.

<sup>409</sup>City of Petersburg, Subdivision Ordinance (hereinafter cited as Petersburg Subdivision Ordinance), Art. 7, Sec. 4.

<sup>410</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>411</sup>Petersburg Annexation Notice, Vol. I, p. 6-54.

<sup>412</sup>Ibid., Vol. III, Exh. P-18.

expense, of streetlights at all road intersections and at mid-block locations in instances where blocks exceed 600 feet in length. In addition, the City of Hopewell will consider requests from residents for the installation of other streetlights. In instances where such are deemed necessary due to vandalism, public nuisances, or traffic patterns, they are installed with the operating costs being borne by the City.<sup>413</sup> City officials have reported that, as of January 19, 1985, there were 1,563 streetlights in the City to meet the needs of its residents.<sup>414</sup>

Hopewell has indicated its intention to install and operate at public expense 91 streetlights within the area it seeks to annex. Those lights would be concentrated in the Stratford Woods and Birchett Estates subdivisions south of the City's present corporate boundaries.<sup>415</sup>

Summary. While both Cities invest significantly more resources in the provision of streetlighting services than Prince George County, and while both municipalities propose to address identified needs in the areas sought for annexation, the County has, in our judgment, established policies for the provision of such facilities which should properly serve the needs of its residents.

#### Curbs, Gutters, Sidewalks, and Storm Drains

Prince George County. Since 1981 the County's subdivision ordinance has required the installation of curbs and gutters in all subdivisions with lots of less than one acre in size. The County's subdivision ordinance also requires the installation of storm drainage in all new development.<sup>416</sup> No County regulations, however, require

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<sup>413</sup>Hopewell Annexation Exhibits: Data, p. 112.

<sup>414</sup>Ibid.

<sup>415</sup>Ibid., p. 158; and Hopewell Annexation Exhibits: Maps, Exh. M-7.

<sup>416</sup>County Defense to Hopewell Annexation, Vol. I, p. 179. See also Prince George County Code, Sec. 17-56 (e). One major development

the installation of sidewalks.<sup>417</sup> The Board of Supervisors does, however, accept requests from residents for the construction of any of these facilities (curbs, gutters, sidewalks, and storm drains) in existing development and, if approved, County funds may be appropriated or a portion of State road allocations may be utilized for their construction.<sup>418</sup> The Commission has no evidence, however, that in recent years the County has provided for the construction of any such facilities in developed portions of its jurisdiction.

City of Petersburg. The City of Petersburg's subdivision ordinance requires the installation of curbs, gutters, and storm drainage in all new developments.<sup>419</sup> Further, the City's subdivision ordinance also requires the installation of sidewalks on both sides of thoroughfares in districts zoned for multi-family or commercial use.<sup>420</sup> Furthermore, requests from citizens for the construction of any of these facilities in older portions of Petersburg are received and considered by the City. If a request is approved, and funds are available, the requested project will be constructed at public expense. The City has indicated that since 1981 such citizen requests have resulted in the installation of approximately 45,000 linear-feet of curbs and gutters, 27,000 linear-feet of sidewalks, and 18,000 linear-feet of storm drains.<sup>421</sup> While the City has not proposed any expenditure of funds for specific improvements in the area proposed

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in the area proposed for annexation by Hopewell has been constructed under this policy resulting in the installation of curbs and gutters.

<sup>417</sup>County Defense to Hopewell Annexation, Vol. I, p. 179.

<sup>418</sup>Goumas, letter to staff of Commission on Local Government, Oct. 18, 1985.

<sup>419</sup>Petersburg Subdivision Ordinance, Art. 7, Secs. 2, 7.

<sup>420</sup>Ibid., Art. 7, Sec. 6.

<sup>421</sup>Calvert, letter to staff of Commission on Local Government July 1, 1985.

for annexation, it has indicated its intention to extend existing City policies regarding the construction of curbs, gutters, sidewalks and storm drainage to that area.

City of Hopewell. The City of Hopewell's subdivision ordinance requires the installation of curbs, gutters, and storm drainage in all new development.<sup>422</sup> The City's subdivision ordinance also requires the installation of sidewalks on streets which are subject to significant pedestrian traffic, including those adjacent to schools, shopping centers, and multi-family development.<sup>423</sup> Hopewell also has a policy by which the City will review requests from residents for the installation of curbs and gutters along streets in existing development. Requests for such construction must be accompanied by a petition signed by 75% of the affected property owners and by their agreement to pay a portion of the cost for the construction of such facilities.<sup>424</sup> The record indicates that between 1980 and 1984 the City installed approximately 15,000 linear-feet of curbs and gutter under this policy.<sup>425</sup> The City does not have a comparable policy for the consideration of requests from residents for the construction of sidewalks or storm drainage in older areas of the City.<sup>426</sup> As in the case of Petersburg, the City of Hopewell does not propose the expenditure of funds for any specified curb, gutter, sidewalk, or storm drainage projects in the area proposed for annexation. The City will, however, apply its existing policies regarding the construction of such facilities to that area.

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<sup>422</sup>Hopewell Annexation Exhibits: Data, p. 108.

<sup>423</sup>Ibid.

<sup>424</sup>Testimony of Strong, Proceedings, Nov. 13, 1985, p. 216. Residents are required to pay \$2.50 per linear-foot for the construction of these facilities.

<sup>425</sup>Hopewell Annexation Exhibits: Data, p. 110.

<sup>426</sup>City of Hopewell does, however, have a storm drainage master plan developed in 1979 which has identified ten major drainage concerns within the City' corporate limits. Several of those concerns

Summary. The Cities' subdivision ordinances are more stringent than that of the County with respect to the provision of sidewalks. Further, unlike the Cities, the County has apparently not invested public funds in the provision of curbs, gutters, sidewalks, and storm drainage in existing development. The continued development and urbanization of the areas proposed for annexation will result in an increasing need for the construction of such facilities in those areas.

Public Planning, Zoning, and Subdivision Regulation

Prince George County. The County established its first planning commission in 1962 and adopted its current comprehensive plan in 1978.<sup>427</sup> While the County's current comprehensive plan is in need of revision and fails to address adequately all factors which should be included in such basic planning instruments, it is presently under review for appropriate modifications.<sup>428</sup> Further, the County has adopted as supplements to its comprehensive plan other planning instruments to guide its development. Those instruments include a Water and Wastewater Plan, a current capital improvement program, and a Cost and Revenue Analysis of Public Services.<sup>429</sup> These separate documents enhance and expand the County's basic planning instrument. Prince George County maintains a staff of two professional planners to assist in the administration of its planning efforts.<sup>430</sup>

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have already been addressed. (Hopewell Annexation Exhibits: Data, p. 108.)

<sup>427</sup>County Defense to Petersburg Annexation, Vol. I, pp. 84-85.

<sup>428</sup>The County's current comprehensive plan does not reflect U. S. Bureau of the Census data for 1980. Further, it lacks specific implementation measures in a number of functional areas. Furthermore, the County's comprehensive plan does not address the role of the zoning and subdivision ordinances in pursuit of its general goals.

<sup>429</sup>County Defense to Petersburg Annexation, Vol. I, p. 85.

<sup>430</sup>Ibid.

The County's current zoning ordinance, which was adopted in 1978, establishes nine distinct districts - 5 residential, 1 business, 2 industrial, and 1 agricultural.<sup>431</sup> The County's zoning ordinance, which is typical of those found in rural jurisdictions, is, in our judgment, in need of revision to reflect the urbanizing nature of portions of the County. Specifically, the agricultural district established ostensibly to protect existing and future farming operations and watersheds, allows 44 special exceptions for development, some of which are not compatible with agricultural operations.<sup>432</sup> Moreover, since residential development can occur in agricultural districts on lots as small as one acre, such districts are subject to extensive residential development. Proper development control over the urbanizing sections of Prince George County will necessitate an improved zoning ordinance.<sup>433</sup>

The County's current subdivision ordinance, which was adopted in 1978, controls the division of land into two or more parcels.<sup>434</sup> Exempt from the coverage of the subdivision ordinance, however, are the division of parcels into lots of five acres or more where such is for agricultural or forestal purposes, as well as certain subdivision of property for the creation of lots for family members.<sup>435</sup> Various

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<sup>431</sup>Prince George County Code, Chapter 21.

<sup>432</sup>Ibid., Sec. 21-14.1. The agricultural district permits the construction of mobile home parks, professional offices, quarries, recreational vehicle parks, landfills, nursing homes, schools, government buildings, and service stations.

<sup>433</sup>Sign regulations are almost nonexistent in the County's zoning ordinance. The continued urbanization of the County should prompt increasing concern for the visual quality of the County's environment and greater attention to the adverse effects of aesthetic pollution on contemporary life.

<sup>434</sup>Prince George County Code, Sec. 17-1.

<sup>435</sup>Ibid.

provisions in the County's subdivision ordinance are desirable elements in regulating growth in urbanizing areas. Included in such provisions are those which (1) preclude the construction of private streets, (2) require the installation of curbs and gutters in residential districts, and (3) require developers to dedicate land to the County for the construction of parks and playgrounds.<sup>436</sup> In sum, the County's subdivision ordinance is, in general, typical of those found in rural jurisdictions. However, the instrument does have elements not always found in county ordinances which should contribute to properly regulated development.

City of Petersburg. The City of Petersburg established its first planning commission in 1937 and adopted its current comprehensive plan in 1983.<sup>437</sup> We note that the City's current comprehensive plan is founded on recent data and detailed background analyses, contains specific goals for various major public activities (e. g., housing, historic preservation, etc.), and includes a detailed implementation section with specific recommendations for the utilization of subordinate planning measures (e. g., zoning and subdivision ordinances).<sup>438</sup> Further, the City of Petersburg has enacted supplemental planning documents dealing with open space, economic development, transportation, and housing to augment its basic planning instrument.<sup>439</sup> Furthermore, Petersburg has an internal planning

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<sup>436</sup>The dedication of land for parks and playgrounds is a good provision for obtaining property for open space. It would be appropriate, however, for the County's subdivision ordinance to refer to the comprehensive plan for the determination of the dedication requirements.

<sup>437</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985; and Petersburg Annexation Notice, Vol. I, p. 6-6.

<sup>438</sup>City of Petersburg, The Comprehensive Community Development Plan, 1983.

<sup>439</sup>Gromel, letter to staff of Commission on Local Government, June 5, 1985.

staff of 13 persons who are responsible for the administration and oversight of the City's various planning measures.<sup>440</sup>

With respect to zoning, Petersburg's current ordinance was adopted in 1971 and is currently undergoing revision.<sup>441</sup> The City's zoning ordinance establishes 19 discrete districts - 9 residential, 3 business, 2 industrial, 5 mixed use.<sup>442</sup> Included in the "mixed use" category is an agricultural district designed to protect the activities generally considered rural in nature. In our judgment, this district constitutes an effective instrument for the protection of agricultural properties in the urban environment.<sup>443</sup> Further, it is relevant to note that the City has established an historic district and an architectural review board for the protection of Petersburg's historical attributes.<sup>444</sup>

In terms of subdivision regulation, we note that Petersburg's current ordinance was adopted in 1974 and is presently being reviewed for possible revision.<sup>445</sup> The City's ordinance applies to all division of property establishing three or more lots, except those in which the resulting lots are two acres or more in size and do not involve the establishment of a new street or easement.<sup>446</sup> Petersburg's sub-

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<sup>440</sup>Petersburg Annexation Notice, Vol. I, pp. 6-7-8.

<sup>441</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>442</sup>Petersburg City Code, Appendix A - Zoning Ordinance. Under the Petersburg zoning ordinance the districts are pyramidal in application (i. e., each zoning district will allow any development of lesser intensity).

<sup>443</sup>Ibid., Article 4-A, Sec. 9. This district does not allow the construction of residential subdivisions.

<sup>444</sup>Ibid. Art. 35.

<sup>445</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>446</sup>Petersburg Subdivision Ordinance, Art. 3. The City's subdivision ordinance also permits other exclusions from the application of its requirements.

division ordinance contains a number of provisions which should promote the orderly development of urbanizing areas. Included in such provisions are those which (1) require the construction of curbs and gutters, streetlights (along major thoroughfares), and sidewalks (in districts which are likely to generate significant pedestrian traffic), (2) require the construction of underground utility lines, (3) mandate connection to public utilities where such are accessible, and (4) require developers to reserve for a period of time certain sites on their plats which have been identified in the City's comprehensive plan for possible use for schools, parks, open space, or other public purpose.<sup>447</sup>

In our view, Petersburg's various planning and development control measures are comprehensive and effective instruments for the regulation of growth in urban areas.

City of Hopewell. The City of Hopewell established its first planning commission in 1929 and adopted its current comprehensive plan in 1985.<sup>448</sup> The City's comprehensive plan is based on detailed and current background data and contains specific recommendations regarding the implementation of various objectives. While Hopewell's comprehensive plan does not identify long-range goals for the City, it does specify a series of policy issues which the City needs to address.<sup>449</sup> As supplements to its basic planning instrument, the City has adopted a capital improvement program and an historic preservation plan.<sup>450</sup> Hopewell maintains an internal planning staff of

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<sup>447</sup>Ibid., Art. 6, Sec. 5; and Art. 7, Secs. 2, 4, 6, 8, 9, and 10.

<sup>448</sup>Hopewell Annexation Exhibits: Data, p. 63.

<sup>449</sup>Among the policy issues identified for the City's attention in the comprehensive plan are those regarding the impact of Interstate Highway 295, the control of strip commercial development, and improvements to the City's public facilities. The City's comprehensive plan does meet, in our view, all statutory requirements.

<sup>450</sup>Martin, letter to staff of Commission on Local Government, Aug. 21, 1985.

two professionals for the management of its various planning and development control activities.

Hopewell's current zoning ordinance was last revised in 1979. That instrument establishes 14 different districts, including 5 residential, 3 business, 2 industrial, and 2 mixed use zones.<sup>451</sup> The City's zoning ordinance also establishes an historic district and an architectural review board for purposes of protecting the City's historic properties.<sup>452</sup> The large number of districts established by the City's zoning ordinance reflects the diversity of land uses in Hopewell and the need to avoid the proximity of conflicting development. In this regard, it is significant to note that Hopewell's zoning ordinance contains an extensive "definitions" section which should facilitate the ordinance's interpretation and enforcement.<sup>453</sup>

In terms of subdivision regulation, Hopewell's current ordinance, which was adopted in 1983, applies to the division of all parcels which result in the creation of two or more lots.<sup>454</sup> The ordinance contains numerous elements which enhance its ability to regulate effectively the development of property in urbanizing areas. Specifically, we note that the Hopewell ordinance (1) precludes the construction of private streets, (2) requires the construction of curbs, gutters, and, where pedestrian traffic necessitates such, sidewalks, (3) mandates the installation of underground utilities, and (4) requires developers to reserve sites in their plats which have been identified in the City's comprehensive plan for possible use for

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<sup>451</sup>Hopewell Annexation Exhibits: Data, p. 63. Hopewell's ordinance establishes nonpyramidal zones (i. e., zoning districts which do not automatically allow development of lesser intensity).

<sup>452</sup>The other district established by the City's zoning ordinance is a "floodplain" zone.

<sup>453</sup>See City of Hopewell, Zoning Ordinance, Art. 1.

<sup>454</sup>See City of Hopewell, Subdivision Ordinance, Art. 2, Sec. 2-53. The ordinance permits the City Council to exempt the subdivision of parcels for use by family members.

schools or other public purposes.<sup>455</sup>

The Commission considers Hopewell's planning and development control instruments to be effective measures for regulating changes in the City's environment.

Summary. In general, the County's planning instruments and development control measures are typical of those found in rural areas. In contrast, the Cities have adopted planning and regulatory devices which are more suitable for managing urbanizing environments. The areas proposed for annexation would benefit from the application of the Cities' planning and development control measures.

#### Street Maintenance

Prince George County. The construction and maintenance of public roads in Prince George County is the responsibility of the Virginia Department of Highways and Transportation (VDH&T), which maintains two offices in the County through which its responsibilities are discharged.<sup>456</sup> Exclusive of the roadway in the Interstate system, the VDH&T is responsible for the maintenance of 344.25 linear-miles of public thoroughfare in the County.<sup>457</sup> Included in this public thoroughfare are 73.97 linear-miles of primary roadway and 259.41 linear-miles of secondary roads (75.4% of the total).<sup>458</sup> The VDH&T

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<sup>455</sup>Ibid., Art. 7. The reservation requirements require developers to reserve sites for a period of 18 months in order to permit the City to determine whether acquisition for public use is appropriate.

<sup>456</sup>H. J. Dyson, Assistant Resident Engineer, Petersburg Residency, Virginia Department of Highways and Transportation, letter to staff of Commission on Local Government, July 25, 1985. One of the offices is located in the Courthouse area and the other is situated in the southwestern part of the County.

<sup>457</sup>Ibid.

<sup>458</sup>Ibid. Included within the public roadway in the County are 10.86 linear-miles of thoroughfare classified as "frontage" road.

has advised that during FY1984-85 it expended for maintenance/maintenance replacement work on primary roadway in the County a total of \$667,403 and a total of \$693,000 on secondary roads in the County.<sup>459</sup> It is relevant to note that in recent years the County has expended a modest amount of its own funds for road-related improvements.<sup>460</sup>

In terms of public thoroughfares within the areas proposed for annexation, the evidence indicates that, exclusive of the roadway in the Interstate highway system, there are, in the aggregate, approximately 29.40 linear-miles of thoroughfare in the area sought for annexation by Petersburg and 26.96 linear-miles of roadway in the area proposed for annexation by Hopewell.<sup>461</sup> State records disclose that approximately 5.85 of linear-miles of secondary roads in the area Petersburg seeks to annex are considered to be "nontolerable" and 3.19 linear-miles of secondary roadway in the area Hopewell seeks to incorporate are similarly classified as "nontolerable."<sup>462</sup> These data reveal that nontolerable secondary roadway in the areas proposed for annexation by Petersburg and Hopewell constitute 19.9% and 11.8% of the total of the secondary roads in those areas, respectively.<sup>463</sup>

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<sup>459</sup>The VDH&T also expended \$532,000 during FY1984-85 on construction projects on roads in the County.

<sup>460</sup>The data indicate that between FY1980-81 and FY1983-84 the County expended \$20,811 for road-related purposes. These funds may have been expended solely for signage.

<sup>461</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985. The Commission's calculations indicate that approximately 11.4 linear-miles of this roadway are included in both of the areas proposed for annexation.

<sup>462</sup>Virginia Department of Highways and Transportation, "Road Inventory, Mileage Record, System Nontolerable - Prince George County," Dec. 31, 1984. The State defines "nontolerable" roads as those which do not have the capability of providing a reasonable level of service based on physical attributes such as pavement width or strength, alignment, or gradient. (Virginia Department of Highways and Transportation, Guide for Secondary Road Improvements, p. 14.)

<sup>463</sup>Our calculations indicate that approximately 1.0 linear-

Two other considerations should be noted regarding the condition of roads in Prince George County. First, the County's subdivision ordinance now precludes the construction of private streets which can, and often do, result in future road problems. Second, the County's subdivision ordinance imposes upon developers a requirement that all subdivision roads must be constructed with a minimum right-of-way width of 50 feet and a minimum pavement width of 22 feet.<sup>464</sup> These development standards should assist the County in maintaining the adequacy of its roads in future years.

City of Petersburg. The City of Petersburg bears full responsibility for the construction, maintenance, and administration of all public thoroughfares within its jurisdiction. At the present time the City has within its boundaries, exclusive of roadway in the Interstate highway system, a total of 179.3 linear-miles of public thoroughfare subject to its jurisdiction.<sup>465</sup> Maintenance of public thoroughfares in Petersburg is principally the responsibility of the City's Division of Street Maintenance, which has a staff of 49 employees and an array of municipally-owned equipment for the discharge of its responsibility.<sup>466</sup> The work of that municipal agency is, however, assisted by the efforts of other City offices involved in traffic engineering and related concerns.<sup>467</sup>

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mile of this nontolerable roadway is located within both of the areas proposed for annexation. It is relevant to note that the County's current six-year secondary road plan calls for improvements to a 0.72 linear-mile segment (State Route 646) of this nontolerable roadway. (See "Secondary System, Construction Program, 1984-85 through 1989-90," adopted by the Prince George County Board of Supervisors on Nov. 10, 1983.)

<sup>464</sup>See Prince George County Code, Sec. 17-57.

<sup>465</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>466</sup>Petersburg Annexation Notice, Vol. I, pp. 6-52, 13-4.

<sup>467</sup>Ibid.

While the City of Petersburg receives substantial assistance from the State for the maintenance of its streets and roads, the City has shown a willingness to expend a substantial amount of its own resources to address its thoroughfare needs. The data indicate that between FY1979-80 and FY1983-84 Petersburg expended a total of approximately \$9.0 million for street maintenance, of which amount approximately \$1.9 million were locally generated funds.<sup>468</sup>

In terms of the extension of service to the area proposed for annexation, the City has indicated its intention to employ seven additional persons and to purchase additional equipment in order to address the needs of that area.<sup>469</sup> Petersburg has also committed itself to undertaking all projects proposed for that area in the Tri-Cities Area Year 2000 Thoroughfare Plan, if the prescribed amount of State assistance is made available.<sup>470</sup> Included in that list of projects are the Temple Avenue extension and improvements to State Route 646.<sup>471</sup> Further, Petersburg has also indicated its intention to undertake at municipal expense other widening, paving, and signage projects affecting the area's roads.<sup>472</sup>

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<sup>468</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985. Some of the local funds reported as expenditure for street maintenance was actually utilized for snow removal purposes. Approximately 3.27 linear-miles of public roadway in the City do not qualify, principally due to insufficient right-of-way width, for State assistance.

<sup>469</sup>Petersburg Annexation Notice, Vol. I, p. 13-5.

<sup>470</sup>Ibid., pp. 13-5-6. The total local cost for the construction of these projects is estimated to be \$350,000.

<sup>471</sup>The Temple Avenue extension, as noted previously, is already under construction. The proposed improvements to State Route 646 (Middle Road) are listed on the County's current six-year secondary road plan.

<sup>472</sup>Petersburg Annexation Notice, Vol. I, p. 13-5. The estimated cost for these additional projects is \$100,000.

City of Hopewell. The construction and maintenance of all public thoroughfares in the City of Hopewell are the responsibility of that municipality. The City addresses this responsibility through its Department of Maintenance and Operations, which is served by 20 employees and an appropriate array of equipment.<sup>473</sup> Hopewell, like its neighboring municipality, receives assistance from the Commonwealth for the maintenance of its public thoroughfares. The City has, however, been required to supplement this State assistance in recent years with local funds in order to address its street and road maintenance requirements. The evidence indicates that between FY1979-80 and FY1983-84 the City budgeted a total of \$7.1 million for street maintenance purposes, of which total approximately \$4.1 million was to be provided from municipal funds.<sup>474</sup>

For purposes of serving the area it proposes to annex, Hopewell has indicated its intention to hire nine additional employees and to purchase five additional pieces of road maintenance equipment. The City has not, however, identified any specific road projects which it proposes to undertake within the area it seeks to annex.<sup>475</sup>

Summary. Given the demonstrated willingness of the Cities to expend substantial local funds for the maintenance of their public thoroughfares, and given their capability for locally administering and maintaining their roadway, the Commission believes that the areas proposed for annexation would benefit from the extension of municipal responsibility and authority to the roads in those areas.

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<sup>473</sup>Hopewell Annexation Exhibits: Data, p. 115. The City's traffic engineering division also bears some responsibility for the proper maintenance of the municipality's streets and roads.

<sup>474</sup>Martin, letter to staff of Commission on Local Government, May 1, 1986. The City was unable to provide audited data for each year during the period in question. These funds were exclusive of all expenditures for construction and reconstruction projects. All public roads in the City qualify for the receipt of State assistance.

<sup>475</sup>Hopewell Annexation Exhibits: Data, p. 158.

### Snow Removal

Prince George County. As in the case of all other road-related functions, snow removal services in Prince George County are the responsibility of the VDH&T. This activity is directed from the two offices which the VDH&T maintains within the County. Those two offices have available, the Commission has been advised, 19 pieces of State-owned equipment and other leased vehicles to provide snow removal services to the areas of their responsibility.<sup>476</sup> The VDH&T has stated that within the areas proposed for annexation it gives highest priority in its snow removal services to Interstate Highway 95, U. S. Route 460, State Route 36, and State Route 10. The second highest priority for clearance is given to U. S. Route 301, State Route 106, and State Route 156.<sup>477</sup> Other public roadway within the areas proposed for annexation is given a lower priority and, thus, will confront delays in snow clearance.

City of Petersburg. Snow removal services in the City of Petersburg are the responsibility of the City's Public Works Department, which has available nine vehicles for that activity.<sup>478</sup> As in the case of the VDH&T, the City establishes priorities for the provision of snow removal services. Main thoroughfares, bus routes, and similar critical roadway are given the highest priority by the City in snow clearance services.<sup>479</sup> The City proposes to purchase

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<sup>476</sup>Dyson, letter to staff of Commission on Local Government, July 25, 1985.

<sup>477</sup>Ibid. The State requires that roads receiving "Priority One" snow removal services be kept free of snow and ice at all times. "Priority Two" snow removal routes receive second consideration and are to be kept free of snow and ice as soon as possible, but within 24 hours after the cessation of inclement weather. (Virginia Department of Highways and Transportation, Policy Manual, Maintenance Division, Sec. 11.)

<sup>478</sup>Petersburg Annexation Notice, Vol. I, p. 6-55.

<sup>479</sup>Ibid.

five additional pieces of equipment to extend snow removal services to the area it seeks to annex.<sup>480</sup>

City of Hopewell. Snow removal services in the City of Hopewell are performed by the City's Maintenance and Operations Department, which has available six pieces of apparatus for that activity.<sup>481</sup> The City of Hopewell gives priority in its snow removal services to arterial streets and to thoroughfares leading to industrial plants, hospitals, fire stations, and similar emergency service facilities.<sup>482</sup> The City does not propose the employment of additional persons nor the acquisition of additional equipment to serve the area it seeks to annex.

Summary. Each of the three jurisdictions appears to have available the requisite equipment and staff to meet the snow removal needs of their residents. We have no basis for concluding that snow removal services in the areas proposed for annexation would be significantly affected by the extension of municipal service.

#### Summary of Service Considerations

In the preceding sections of this report the Commission has endeavored to consider the urban service needs of the areas proposed for annexation and the relative ability of the Cities and the County to meet those needs. At issue here are concerns which do not permit complete resolution by any known statistical measures. While the preceding discussion has cited the statistical measures which we consider to be relevant, those measures are tempered by our own experience in Virginia local government. In this report, this Commission is required to consider annexation actions initiated by two cities which have strong and broad urban service capabilities. Those municipali-

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<sup>480</sup>Ibid., p. 13-6.

<sup>481</sup>Hopewell Annexation Exhibits: Data, p. 114.

<sup>482</sup>Ibid.

ties have developed an array of capital facilities and professional staffs which are engaged in the extension of urban services to their residents. Prince George County, on the other hand, while beginning to respond to the urban service needs of its developing areas, offers generally a type and level of public services typically found in rural areas.<sup>483</sup> Clearly, with respect to law enforcement, fire protection, solid waste, recreation, public planning and development control, and road maintenance, the services offered by the Cities exceed in breadth and intensity those offered by the County. In our view, the Cities of Petersburg and Hopewell are fully capable of serving the areas they are ultimately permitted to annex.<sup>484</sup>

Adding to the complexity of these annexation cases, however, is the fact that the areas proposed for annexation encompass significant federal properties, including the Fort Lee military installation which is essentially self-sufficient in terms of urban services.<sup>485</sup> Further, the exclusion of Fort Lee and its residents from an analysis of the areas proposed for annexation reveals that, while experiencing

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<sup>483</sup>The Commission has noted that Prince George County is the first county in the Commonwealth to bestow upon its Board of Supervisors the authority to issue general obligation bonds without the necessity of a separate referendum on each issue. We recognize that Prince George County residents have, thereby, given increased latitude to their local governing body to respond to the County's future urban service needs.

<sup>484</sup>This Commission has reviewed with considerable interest The Naisbitt Group's report on the community assessment it performed with respect to the City of Petersburg. (See County Defense to Petersburg Annexation, Vol. III, Tab. 9.) That assessment concluded that two of the principal problems confronting the City of Petersburg have been (1) a divisive city council and (2) the absence of a strategic plan for the future. (Ibid., p. 10.) While we acknowledge the importance of a cohesive governing body, and the concerted efforts which can result from unanimity of view, the democratic process does not assure any jurisdiction of such a result. We do agree, however, that a function of public leadership is the reconciliation of contending values and the development of a consensus for action.

<sup>485</sup>As noted previously, the County's Sheriff's Department does serve civil process and, on infrequent occasions, criminal papers on the military reservation. The County does provide educational ser-

some development pressures, those areas remain sparsely populated. Accordingly, the urban service needs of the nonfederal properties are limited, and, thus, the provision of such services becomes less critical in the resolution of these annexation issues.

#### COMPLIANCE WITH APPLICABLE STATE POLICIES

Another of the factors prescribed for consideration in annexation issues is the extent to which the affected jurisdictions have made efforts to comply with applicable State policies. In our judgment, there are five State policies which merit consideration in this report. The following sections review those State policies.

##### Public Planning

The Code of Virginia requires the State's political subdivisions to establish a planning commission and to adopt a comprehensive plan and subdivision regulations to guide their future development.<sup>486</sup> Consistent with these statutory requirements Prince George County, the City of Petersburg, and the City of Hopewell have established planning commissions and have adopted those development control instruments. In addition, each of the jurisdictions has adopted a zoning ordinance which enhances its ability to regulate its future development. In view of the fact that previous sections of this report have dealt extensively with each locality's public planning efforts, extended comment here is not required. While the Cities development control measures are more stringent and appropriate for the regulation of urban growth, we find that each of the three jurisdictions has made reasonable efforts to comply with the State's concern for public planning.<sup>487</sup>

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vices to students living at Fort Lee.

<sup>486</sup>Secs. 15.1-427.1, 15.1-446.1, and 15.1-465.1, Code of Va.

<sup>487</sup>The Code of Virginia requires local planning commissions to review a jurisdiction's comprehensive plan once every five years to determine whether revisions are required. (Sec. 15.1-454, Code of

### Housing

The State's legislature has recognized that there is a fundamental human need for adequate housing. The General Assembly has asserted that proper housing for the State's residents is a matter of "grave concern to the Commonwealth."<sup>488</sup> The three jurisdictions involved in these proceedings have each taken actions consistent with this State concern. While Prince George County has not established a public housing authority to address the housing needs of its residents, the County did establish in 1978 a program by which it administers rental assistance to qualifying residents. The County currently has a full-time staff of two employees who are involved in the administration of rental assistance to approximately 100 families within its jurisdiction.<sup>489</sup> Further, Prince George County has indicated its intention to submit an application to the Virginia Housing Development Authority (VHDA) by June 1986 to extend its involvement in housing assistance efforts.<sup>490</sup> In addition, the County has within its jurisdiction 295 units of assisted housing built by private developers with the direct assistance of the U. S. Department of Housing and Urban Development (HUD).<sup>491</sup>

The City of Petersburg established a redevelopment and housing authority in 1967 to assist its residents in obtaining suitable housing. This agency, which now has a staff of 15 full-time

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Va.) The Prince George County comprehensive plan, which was adopted in 1978, is now under review.

<sup>488</sup>Sec. 36-2, Code of Va. See also Sec. 36-120, Code of Va.

<sup>489</sup>County Defense to Hopewell Annexation, Vol. I, p. 198. This housing assistance program is colloquially identified as the Section 8 Existing program. Rental assistance is provided to qualifying persons for the rental of units in existing housing.

<sup>490</sup>Goumas, letter to staff of Commission on Local Government, Jan. 13, 1986.

<sup>491</sup>Ibid., Oct. 18, 1985. There is also an unknown number of dwelling units in the County which are supported by assistance from the Farmers Home Administration.

employees, directly administers 300 units of public housing at three sites in the City, with an additional 50 units currently under construction. This authority also administers 30 units of assisted housing under the Section 8 Moderate Rehabilitation Program sponsored by HUD.<sup>492</sup> Considering collectively all units owned or administered by public or private entities, there are 1,139 units of assisted housing located within the City of Petersburg.<sup>493</sup>

The City of Hopewell established a redevelopment and housing authority as early as 1940 to address the housing concerns of its residents. This agency, which now has a staff of 21 full-time employees, owns and operates 500 units of public housing at seven sites in the City and, in addition, administers 124 units of assisted housing under various HUD Section 8 rental assistance programs.<sup>494</sup> In sum, there are a total of 932 units of assisted housing in Hopewell operated by either public or private entities.<sup>495</sup> Based on 1983 data, 12.3% of all the City's occupied housing was publicly owned or publicly assisted units.<sup>496</sup>

While the Cities of Petersburg and Hopewell maintain more extensive programs serving a greater number of families, the evidence indicates that each of the three jurisdictions involved in these annexation issues has made reasonable efforts to comply with the State's concern for proper housing for its residents.

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<sup>492</sup>Petersburg Annexation Notice, Vol. I, p. 6-58.

<sup>493</sup>Calvert, letter to staff of Commission on Local Government, July 1, 1985.

<sup>494</sup>Hopewell Annexation Exhibits: Data, p. 134. City officials advised that an additional 28 units of assisted housing were occupied within the municipality by the end of calendar year 1985.

<sup>495</sup>Ibid., pp. 136-37.

<sup>496</sup>Ibid., p. 135. Hopewell is the only city in Virginia to have a HUD-approved New Horizons Fair Housing Program designed to promote equal housing opportunities for its residents. (Ibid., p. 134.) This program, which was adopted by the City in 1982, is funded by a

### Public Transportation

The General Assembly of Virginia has expressed a concern for the provision of public transportation to residents of the State.<sup>497</sup> The City of Petersburg is the only jurisdiction involved in these annexation proceedings which is directly involved in the provision of public transportation services to its residents. The City, which began its operation of a transit system in 1977, currently operates 14 buses on eight routes which serve the City and adjoining areas in Chesterfield and Dinwiddie Counties.<sup>498</sup> In addition to this fixed-route system, the City also operates a special transportation program for the elderly and handicapped which is supported by public assistance funds.<sup>499</sup>

While the City of Petersburg receives State and federal assistance for the operation of its fixed-route system, the City is required to supplement that assistance with local funds. During FY1983-84 the City's fixed-route system resulted in operating expenditures of \$650,641, of which only \$296,391 was raised by operating revenues.<sup>500</sup> The operating deficit was met by federal grant (\$179,800), State assistance

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portion of Hopewell's Community Development Block Grant allocation. (Martin, letter to staff of Commission on Local Government, May 9, 1986.)

<sup>497</sup>Sec. 33.1-12 (9), Code of Va. See also Sec. 33.1-391, Code of Va.

<sup>498</sup>City of Petersburg, "Annexation Tour Book for Commission on Local Government, Oct. 1985." This document provided a narrative and pictorial compilation of the sites and public operations viewed by the Commission on its tour of the Petersburg - Hopewell - Prince George County area on Oct. 26, 1985.

<sup>499</sup>Ibid. This transportation system for the elderly and handicapped is a demand-responsive program.

<sup>500</sup>Virginia Department of Highways and Transportation, 1984 Annual Report on Transportation in the Commonwealth of Virginia, pp. 93-98. The fare for use of this system is \$.50 per trip.

(\$124,602), and local funds (\$50,079).<sup>501</sup> Since the City's transportation system now serves approximately 3,400 passengers per day, Petersburg's financial support for this activity represents a significant effort to comply with the State's concern for public transportation.<sup>502</sup>

### Education

By both constitutional provision and general law, the State of Virginia has declared that public education is a fundamental concern of this Commonwealth.<sup>503</sup> These various legal provisions require the establishment of a set of minimum standards for public education which must be met by each local school division in the Commonwealth. The evidence indicates that each of the school divisions serving the three jurisdictions involved in these proceedings is in substantial compliance with the State-prescribed minimum standards.<sup>504</sup> There are, however, concerns which have been raised in these annexation actions regarding the educational programs of the three jurisdictions. These concerns require comment in this report. Accordingly, the following paragraphs review attributes of the educational programs of the three jurisdictions.

The City of Petersburg operates ten school facilities which served in 1983-84 an average daily membership (ADM) of 6,701 students.<sup>505</sup>

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<sup>501</sup>Ibid.

<sup>502</sup>Testimony of Brown, Proceedings, Oct. 28, 1985, p. 368.

<sup>503</sup>Art. VII, Sec. 1, Constitution of Virginia; and Ch. 157, Acts of Assembly, 1984.

<sup>504</sup>This judgment is based upon our review of materials published by the Virginia Department of Education. See Report on Public Education in Virginia 1984-85 as well as the most recent "Program Reports" issued at the conclusion of the inspection of the school divisions by the Virginia Department of Education's Administrative Review Service.

<sup>505</sup>Petersburg Annexation Notice, Vol. I, p. 7-2; and Virginia Department of Education, Facing-Up 19, Statistical Data on Virginia's Public Schools, 1983-84 School Year, June 1985.

All Petersburg schools were, as of October 1985, accredited by the State Department of Education and the Southern Association of Colleges and Schools.<sup>506</sup> If the annexation proposed by the City is ultimately approved by the court, Petersburg estimates that its school system would be required to accommodate an additional 2,640 students formerly enrolled in Prince George County schools.<sup>507</sup> Petersburg has acknowledged the need to acquire the Walton Elementary School or to expand its existing facilities at the elementary and junior high school levels in order to accommodate the increase in enrollment.<sup>508</sup>

The City of Hopewell currently operates eight school facilities which served during school year 1983-84 an ADM of 4,216 students.<sup>509</sup> All of the City's schools have been accredited by the State Department of Education and the Southern Association of Colleges and Schools.<sup>510</sup> The evidence indicates that Hopewell's schools have sufficient excess capacity to accommodate the estimated 405 public school students living within the area it seeks to annex.<sup>511</sup> In order to serve the students who would be brought into the City's school system as a result of the proposed annexation, Hopewell has indicated its intention to employ 8-10 additional elementary school

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<sup>506</sup>Testimony of Florence S. Farley, Mayor, City of Petersburg, Proceedings, Oct. 28, 1985, p. 134.

<sup>507</sup>Petersburg Annexation Notice, Vol. I, p. 13-9.

<sup>508</sup>In addition to recognizing the need for additional facilities, the City of Petersburg has indicated its intention to purchase 12 additional school buses for purposes of serving students from the area proposed for annexation. The City does not, however, propose to add any additional teachers. (Gromel, letter to staff of Commission on Local Government, Feb. 4, 1986.)

<sup>509</sup>Hopewell Annexation Exhibits: Data, p. 131; and Facing-Up 19. The City also operates one occupational work center as part of its general educational program.

<sup>510</sup>Hopewell Annexation Exhibits: Data, p. 125.

<sup>511</sup>Testimony of Dr. Patrick Russo, Superintendent of Schools, City of Hopewell, Proceedings, Nov. 14, 1985, p. 394; and Perry, letter to staff of Commission on Local Government, Jan. 23, 1986. The

teachers.<sup>512</sup>

Prince George County currently operates ten school facilities which served during school year 1983-84 an ADM of 5,048 students.<sup>513</sup> All Prince George County schools are currently accredited by the State Department of Education, and its one high school is also accredited by the Southern Association of Colleges and Schools.<sup>514</sup> The County has advised that the annexations proposed by the City of Petersburg and the City of Hopewell would each affect, to a varying degree, its educational program at seven schools.<sup>515</sup> The cumulative effect of both proposed annexations would have a substantial impact on the Prince George County school system.<sup>516</sup>

Raised both directly and obliquely during the course of our review have been evaluative comments concerning the educational programs of the three jurisdictions. This Commission well understands, however, that no statistical indices are adequate to measure fully the quality of an educational program. Much of a student's educational experience is determined by the attributes of individual teachers, their

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capacity in Hopewell's elementary schools (3,140) includes the use of three portable classrooms. However, the City's 1985 elementary school enrollment was only 2,468 students. Moreover, the City has a recently closed elementary school, with a capacity of 267, which could be utilized to meet the needs of an expanded enrollment.

<sup>512</sup>Testimony of Russo, Proceedings, Nov. 14, 1985, p. 394. The City's school system would also provide free transportation, under existing City policies, to students residing in the area proposed for annexation.

<sup>513</sup>County Defense to Petersburg Annexation, Vol. I, p. 247; and Facing-Up 19.

<sup>514</sup>Testimony of Dr. James G. Rooks, Superintendent of Schools, County of Prince George, Proceedings, Oct. 30, 1985, p. 983.

<sup>515</sup>County Defense to Hopewell Annexation, Vol. II, Exh. 13. The area proposed for annexation by the City of Petersburg contains the Walton Middle School.

<sup>516</sup>The Commission's calculations indicate that, based on data provided by the three jurisdictions, approximately 44.4% of the County's 1983 schoolage population resided within the areas proposed

intellectual capacity, sensitivity, and character. These qualities are not amenable to quantification and statistical analysis. This Commission approaches with great skepticism and reservation efforts to compare educational programs. Nevertheless, there are data available which provide some understanding of a locality's educational efforts. A few of the major statistical facts regarding school year 1983-84 with respect to the systems serving Prince George County, the City of Petersburg, and the City of Hopewell are listed below:<sup>517</sup>

	<u>Prince George County</u>	<u>City of Petersburg</u>	<u>City of Hopewell</u>	<u>State</u>
Pupil-Teacher Ratio				
Elementary	18.4	17.2	18.4	16.9
Secondary	13.2	12.2	13.3	14.1
Total	16.1	14.8	16.1	15.7
Total Instructional Personnel per 1000 Students in ADM	62.4	66.7	61.8	64.8
Graduates				
% Continuing Educ.	53.7	56.9	41.1	62.2
% Attending 4-year Colleges	27.3	35.0	20.2	38.8
% Not Continuing Education but Having Marketable Skills	89.4	98.0	74.0	88.7
Dropouts				
Number	44	197	140	-
% of ADM	2.3	6.9	8.2	4.5
Expenditures per pupil for Operations				
Total	\$2,460	\$2,787	\$2,742	\$2,805
Local	586	1,134	1,179	1,335

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for annexation by the two municipalities.

<sup>517</sup>Facing-Up 19, Tables 2, 3, 7 and 11.

While the above statistics address only a limited number of quantitative aspects of the three school divisions, they do indicate that the Cities have invested significantly in their educational programs and have maintained staffing levels at least comparable to those in Prince George County.<sup>518</sup>

Added perspective regarding the educational programs and student bodies in the three school divisions may be obtained from an analysis of standardized test scores designed to measure the ability and achievement of students attending those systems. The following table reflects the results of tests administered to students in the three school divisions in grades 4, 8, and 11 during academic year 1984-85:<sup>519</sup>

<u>Division</u>	Grade 4			
	EAS (Ability)	SRA Achievement Reading	Series Language Arts	Math
Hopewell	45	43	54	50
Prince George	53	53	58	62
Petersburg	34	32	42	32
State	56	57	60	59

	Grade 8			
	EAS (Ability)	SRA Achievement Reading	Series Language Arts	Math
Hopewell	54	46	52	63
Prince George	62	58	59	72
Petersburg	39	31	40	50
State	61	55	58	68

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<sup>518</sup>With the exception of the dropout rate, the City of Petersburg school system compares favorably on all the dimensions covered in the table.

<sup>519</sup>S. John Davis, Superintendent of Public Instruction, Virginia Department of Education, Memorandum to Virginia School

Division	Grade 11			
	EAS (Ability)	Reading	Language Arts	Math
Hopewell	55	51	52	60
Prince George	63	60	61	57
Petersburg	34	32	40	41
State	62	58	58	64

These tables reveal a student body in the Prince George County school division with notably higher ability scores and, with one exception, achievement scores substantially in excess of those recorded by pupils in the school divisions serving the adjoining municipalities.

Finally, we are obliged to note that Prince George County has submitted materials to the Commission reporting that Petersburg's Superintendent of Schools has acknowledged major deficiencies in the City's educational program.<sup>520</sup> In addition, the County has presented evidence indicating that school systems confronting problems similar to those of Petersburg (e. g., student dropout rate) have successfully addressed such problems through specially designed reading programs.<sup>521</sup> These submissions to the Commission were intended to show that Petersburg schools had major and recognized deficiencies which were susceptible to improvement, but which had not been addressed by the City. In our judgment, the quality of local educational programs is a relevant consideration in the disposition of

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Division Superintendents, June 12, 1985. The EAS test (Educational Abilities Series) is designed to provide an estimate of a student's ability to do grade level work. The SRA achievement series (Science Research Associates) is a test battery designed to measure a student's status in the major skill and content areas. The results of these tests are reported in percentile equivalents of average scores [i. e., the average scores for a division or the State are compared with the scores of a national norm group (national sample of students)]. A percentile equivalent of 54 indicates that the average score is higher than the scores of 54% of the students in the national norm group and lower than 46%. The fiftieth percentile represents an average score for students nationwide. Test scores are not a precise measurement; therefore, differences of several percentile points may not be significant. (Facing-Up 19.)

<sup>520</sup>County Defense to Petersburg Annexation, Vol. III, Tab 11.

<sup>521</sup>Ibid., Tab 10.

annexation issues. We add, however, that acknowledgment of educational problems by local school officials is both laudatory and a prerequisite for remedial action.

#### Agricultural Land Preservation

The General Assembly of Virginia has declared that it is the policy of the Commonwealth to endeavor to preserve the State's agricultural properties.<sup>522</sup> In our judgment, this policy is wise and foresightful. In this regard, it is significant to note that both Prince George County and the City of Petersburg have adopted a program of use value assessment which reduces the fiscal pressures on agricultural and other qualifying properties.<sup>523</sup> As a result of these programs the County and the City of Petersburg reduced the taxable value of qualifying properties by \$54.7 million and \$6.0 million, respectively, during tax year 1983.<sup>524</sup> Further, and consistent with the State's concern for the protection of agricultural properties, both Prince George County and the City of Petersburg have established agricultural districts in their zoning ordinances for the protection of agricultural operations.<sup>525</sup> We consider these various measures by the County and Petersburg as actions consistent with the State's concern for the protection of its agricultural properties.

#### COMMUNITY OF INTEREST

The law governing the disposition of annexation issues directs

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<sup>522</sup>Sec. 15.1-507, Code of Va.

<sup>523</sup>The City of Petersburg and Prince George County established use value assessment programs in 1974 and 1976 respectively. Each of the programs encompass all four categories of property which are eligible for use value assessment under State law (agricultural, forestal, horticultural, and open space).

<sup>524</sup>Virginia Department of Taxation, Annual Report, 1983-1984, Table 5.4.

<sup>525</sup>It is relevant to note, however, that the County's zoning ordinance permits a significant amount of development in agricultural districts which reduces the effectiveness of that ordinance in pro-

this Commission and the reviewing court to consider the strength of the community of interest which ties the area proposed for annexation to the annexing city in relation to that which binds the area to the remaining portions of the county. While consideration of this question properly involves many factors, the most relevant considerations, from our perspective are those which disclose the economic, commercial, professional, and public service concerns which create interdependency. While this Commission acknowledges that not all of the factors which bear on the issue of community of interest are susceptible to quantification and precise measurement, there are statistical indices which can assist in the analysis of this issue. The following paragraphs review the data relative to the annexations proposed by the Cities of Petersburg and Hopewell.

#### City of Petersburg - Area Proposed for Annexation

There are a number of factors which suggest a significant community of interest between the City of Petersburg and the area it seeks to annex. Those factors include retail and wholesale trade relationships; financial, professional, and other services; employment opportunities; and development patterns.

With respect to retail trade, recent data disclose that the City of Petersburg remains the prominent locality in the area in terms of the breadth and magnitude of its retail activity. Virginia Employment Commission statistics for the quarter ending June 30, 1985 disclose that, during that period of time, Petersburg had within its boundaries 301 retail establishments employing 4,170 employees, while during the same span of months the County had 42 retail establishments served by 884 employees.<sup>526</sup> Further, Department of Taxation data reveal that the value of taxable retail sales in the City of Petersburg in 1985 was \$313.5 million, while the total of such sales in the County

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tecting agricultural activity.

<sup>526</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985. The number of employees cited represents the average for the quarter.

overall during the same year was \$37.0 million.<sup>527</sup> The comparative significance of Petersburg's retail trade is evidenced by the fact that taxable retail sales in that municipality in 1985 represented 68.3% of the total of such sales in the three jurisdictional area (City of Petersburg - City of Hopewell - Prince George County).<sup>528</sup> Based on the above data, it is reasonable to conclude that a significant amount of the retail trade needs of County residents residing in close proximity to the City of Petersburg, particularly those who were not eligible to use the retail facilities at the Fort Lee military reservation, were met by establishments within the corporate boundaries of Petersburg. A recent survey of residents in the area proposed for annexation undertaken by Prince George County indicated that in terms of apparel, automobiles, and entertainment, residents of the area proposed for annexation utilize, in the main, facilities in the City of Petersburg.<sup>529</sup>

In terms of wholesale trade, recent data reveal that Petersburg continues to play a prominent role in this aspect of the region's economy. Virginia Employment Commission statistics for the quarter ending June 30, 1985 disclose that during that period of time there were 46 wholesale establishments employing 716 employees in the City of Petersburg, while there were 5 such establishments in the County overall employing a total of 53 employees during the same period.<sup>530</sup> While data are not available to indicate the extent to which the wholesale establishments in the City of Petersburg serve businesses within

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<sup>527</sup>Taxable Sales, Annual Report, 1985.

<sup>528</sup>Ibid. Since the County's only concentration of retail trade facilities is in or adjacent to Lee Plaza, County residents residing in close proximity to the City of Petersburg probably rely principally upon the retail outlets in that municipality.

<sup>529</sup>County Defense to Petersburg Annexation, Vol. I, Table 27.

<sup>530</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

the area proposed for annexation, the City clearly is the wholesale trade center for the general area.<sup>531</sup>

The City of Petersburg also serves as a center for the provision of services to residents of the general area. Within the City's corporate boundaries is the Petersburg General Hospital, a 468-bed nonprofit facility, staffed, as of 1985, by 147 physicians and dentists.<sup>532</sup> While many residents of the area proposed for annexation, and of Prince George County generally, are eligible to use the Kenner Army Hospital at Fort Lee, statistics indicate that 988 of the patients treated at Petersburg General Hospital in 1984 were residents of the County.<sup>533</sup> In terms of financial services, 1983 data disclosed that within the City of Petersburg were 8 banks with 33 offices and 4 savings and loan institutions with a total of 12 separate facilities. The same data indicated that, as of 1983, there were two banks in Prince George County maintaining two offices and one savings and loan institution operating a single facility.<sup>534</sup> Despite this concentration of the area's financial institutions within Petersburg, the County's recent survey of residents of the area proposed for annexation by that City reported that only 16.0% of the respondent households stated that their "banking" activities were con-

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<sup>531</sup>U. S. Bureau of the Census data disclose that in 1982 the value of wholesale sales originating in the City of Petersburg totaled \$116.6 million, more than ten times that in the entirety of Prince George County (\$10.4 million). (U. S. Department of Commerce, Bureau of the Census, 1982 Census of Wholesale Trade, Virginia, Table 8.)

<sup>532</sup>"Annexation Tour Book for Commission on Local Government."

<sup>533</sup>Petersburg General Hospital, Demographics.

<sup>534</sup>Charlotte H. Scott and John A. Alexander, 1983 Deposit Statistics for Banks and Thrift Institutions in Virginia Communities, (Charlottesville: Tayloe Murphy Institute, University of Virginia, Aug. 1984).

ducted in Petersburg.<sup>535</sup> The County's survey indicated that 57.2% of the respondent households reported that their "banking" services were met by facilities in the County. The County's survey suggests that the financial institutions located at the Fort Lee military installation serve a large percentage of the residents of that facility and federal employees living in the immediate environs.

Finally, in terms of all categories of service, Virginia Employment Commission statistics for the quarter ending June 30, 1985 revealed that the City of Petersburg contained during that quarter a total of 366 service establishments employing 2,676 persons, while during the same period the County as a whole contained only 52 service establishments employing 1,124 persons.<sup>536</sup> It is reasonable to infer that the service facilities in Petersburg serve the needs of numerous County residents, particularly those who are ineligible to use the facilities at Fort Lee.

The data also indicate that the City of Petersburg has been the site of employment for many nonresidents in recent years. Statistics regarding commuting patterns reveal that, as of 1980, 2,032 County residents age 16 and over were employed by firms in the City of Petersburg.<sup>537</sup> With the dramatic constriction in the number of manufacturing positions in the City in recent years, however, the number of County residents employed within the City may be significantly reduced.<sup>538</sup> With respect specifically to residents of the

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<sup>535</sup>County Defense to Petersburg Annexation, Vol. I, Table 27.

<sup>536</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985. The service industries reflected in these statistics include those engaged in repair, health, legal, educational, amusement, and hotel activity. These "service" facilities are not included in the total of "retail" facilities reported by the Virginia Employment Commission

<sup>537</sup>Transportation and Commuting in Virginia, 1980. As of 1980 there were 1,991 City residents employed in Prince George County.

<sup>538</sup>Brown & Williamson Tobacco Corporation, which employed approximately 1,300 persons in the early part of 1985, ceased its

area proposed for annexation, the survey recently completed by Prince George County reported that only 6.3% of the respondents stated that the head of household was employed in Petersburg, while 77.7% of such respondents stated that the head of household was employed by entities in the County.<sup>539</sup> Since the economic activity within the area proposed for annexation is concentrated at the Fort Lee military reservation, the prominence of that facility in the area's employment is evident.

Finally, it is relevant to note that certain development in the area proposed for annexation constitutes an extension of growth originating in the City. In our judgment, both Flactem Manor along U. S. Route 301 south of Petersburg and the Commonwealth Estates subdivision adjacent to State Route 603 east of the City represent growth which is an extension of the municipality.

In sum, the City of Petersburg has played, and continues to play, a significant role in the corporate life of its area. While certain economic factors may currently be constricting that role, and while the presence of the Fort Lee military reservation provides the area proposed for annexation with an extraordinary degree of self-sufficiency, the City's role in the development and continued support of its region must be recognized.

#### Area Proposed for Annexation - Prince George County

While there are numerous factors which contribute to the interdependence of the area proposed for annexation by Petersburg and outlying portions of Prince George County, including utility facilities, school attendance zones, and other urban service relationships (e. g., recreational facilities), it is the Fort Lee military reser-

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operations in the City effective January 1, 1986. (Virginia Employment Commission, Special Area By Industry Listing for Quarter 1-85.)

<sup>539</sup>County Defense to Petersburg Annexation, Vol. I, Table 27. The County survey indicated that 42.7% of the respondents living off the Fort Lee military installation reported the head of household as being employed in Prince George County, while 17.6% of such respondents

vation which is the paramount factor bearing on such relevance.<sup>540</sup> The presence of that facility has a major and pervasive effect on the economic and social life of the County and on that of the general area. During federal FY1984-85 there were 3,997 civilian employees who worked on the Fort Lee military reservation.<sup>541</sup> It is reasonable to infer that a significant number of those civilian employees lived in Prince George County.<sup>542</sup> Further, located at Fort Lee are a post exchange, a commissary, and medical and recreational facilities which serve both active and retired military personnel living on and off the military reservation. The variety of facilities at Fort Lee which are available to serve the needs of military personnel living on the reservation and in adjacent residential areas diminishes, in our judgment, the interdependence which would normally exist between such an area and its adjacent municipality.<sup>543</sup> Moreover, since the urban service needs of the military reservation are, in the main, provided internally, there is little in the way of a public service relationship between the area proposed for annexation and the City of Petersburg. Indeed, the only major public service need of Fort Lee

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indicated that the head of household was employed in the City of Petersburg. (Ibid., Table 26.) The survey results presented to the Commission did not include the place of employment for other persons residing in the household. Such information is relevant.

<sup>540</sup>County-owned utility lines extend through the area proposed for annexation into outlying portions of the County along U. S. Routes 301 and 460 and State Route 106. Eight County school attendance zones draw students from both within and without the proposed annexation area. (See County Defense to Petersburg Annexation, Vol. II, Exhs. 4, 13.)

<sup>541</sup>Burger, letter to staff of Commission on Local Government, Mar. 10, 1986.

<sup>542</sup>In 1980 only 1,991 residents of the City of Petersburg commuted to Prince George County for their employment. (Transportation and Commuting in Virginia, 1980.)

<sup>543</sup>During calendar year 1985 gross sales at the Fort Lee post exchange, the commissary, and the package beverage store totaled \$47.3 million, a level of retail activity substantially exceeding the total

which is met externally is public education which is provided by the Prince George County school system. In sum, while there are clearly economic and social ties between the area proposed for annexation and the City of Petersburg, the dominance of the Fort Lee military reservation in that area gives it a notable degree of self-sufficiency and emphasizes its relationship with Prince George County. We have no difficulty concluding that the community of interest between the Fort Lee military reservation and Prince George County exceeds that which exists between that installation and the City of Petersburg.

#### Area Proposed for Annexation - City of Hopewell

The City of Hopewell, as in the case of Petersburg, plays a major role in the public life of its general area. As a result of economic, urban service, and other factors, there is a significant community of interest between Hopewell and major portions of the area it proposes to annex.

In terms of economic factors, the data indicate that, as of 1980, 1,541 residents of Prince George County commuted to the City of Hopewell for their employment.<sup>544</sup> It is reasonable to infer that a significant number of those in-commuters came from residential concentrations in close proximity to Hopewell's corporate limits.<sup>545</sup> Further, the data suggest that retail activity in the City of Hopewell establishes a second economic factor tying the City to the develop-

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taxable retail sales in the entirety of Prince George County during the same year (\$37.0 million). In addition to the \$47.3 million of nontaxable sales at Fort Lee during 1985, several small businesses (e. g., flower shop, ice cream parlor) operating on the military reservation generated a total of \$2.5 million in taxable retail sales during the same year. (Burger, letter to staff of Commission on Local Government, May 16, 1986.)

<sup>544</sup>Transportation and Commuting in Virginia, 1980. As of 1980 the City of Hopewell provided employment to a total of 6,578 nonresidents.

<sup>545</sup>The County's recently conducted survey of households in the area proposed for annexation indicated that 21.6% of the respondents reported the head of household as working in the City, while 40.2% of

ment on its periphery. Virginia Employment Commission statistics disclose that, as of the quarter ending June 30, 1985, there were 113 retail establishments employing 1,419 persons in Hopewell, a level of retail activity substantially in excess of that in the entirety of Prince George County (42 establishments employing 884 persons).<sup>546</sup> State Department of Taxation data indicate that taxable retail sales in the City in 1985 totaled \$108.7 million, or nearly three times that in the County generally (\$37 million).<sup>547</sup> While the County's recent survey of households in the area proposed for annexation reported that a significant percentage of retail activity of residents in that area is directed toward facilities outside Hopewell, it is reasonable to conclude that retail outlets in the City serve extensively the non-military population living in areas adjacent to the City.<sup>548</sup>

The economic relationship between Hopewell and adjacent areas is strengthened by the presence of wholesale establishments in the City. As of 1985, the City was the site of 14 wholesale businesses, several times the number of such firms in the County generally (5 establish-

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the respondents indicated that the head of household was employed within the area proposed for annexation or in the County generally. (County Defense to Hopewell Annexation, Vol. I, Table 1.)

<sup>546</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

<sup>547</sup>Taxable Sales, Annual Report, 1985.

<sup>548</sup>Retail sales on the Fort Lee military installation are not taxable by the State of Virginia and, thus, are not reflected in the Department of Taxation's annual compilation of taxable retail sales. As noted previously, during calendar year 1985 sales at the Fort Lee post exchange, commissary, and package beverage store totaled \$47.3 million. (Burger, letter to staff of Commission on Local Government, May 16, 1986.) The County's recent survey of households in the area proposed for annexation reported that 51.4% of the respondents indicated that they purchased their food within the area proposed for annexation or in the County generally. (County Defense to Hopewell Annexation, Vol. I, Table 1.)

ments).<sup>549</sup> Further, 1982 data reveal that the value of wholesale transactions in the City (\$30.3 million) was, again, nearly three times that in the County overall (\$10.4 million).<sup>550</sup>

The concentration of financial and other service institutions in the City of Hopewell contribute to the economic ties between Hopewell and the areas on its periphery. Statistics indicate that, as of 1983, the City's three banks and two savings and loan institutions maintained collectively 15 offices within the City's corporate limits, while only three such financial offices were located within the entirety of Prince George County.<sup>551</sup> The survey conducted by the County of households in the area Hopewell proposes to annex revealed that, in 1985, 58.5% of the respondent households reported conducting their banking activities in Hopewell, while 29.4% of the respondents indicated that their banking affairs were conducted in the County.<sup>552</sup> In terms of medical services, the City contains the John Randolph Hospital, a 150-bed facility, which serves the medical needs of the general area. In total, Virginia Employment Commission data indicate that for the quarter ending June 30, 1985, there were 141 various service establishments in Hopewell to serve the needs of area residents, a total nearly three times that in the entirety of Prince George County (52).<sup>553</sup> Given this concentration of service establishments in Hopewell, it is reasonable to conclude those firms serve a significant number of County residents, particularly those

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<sup>549</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

<sup>550</sup>1982 Census of Wholesale Trade, Virginia.

<sup>551</sup>1983 Deposit Statistics for Banks and Thrift Institutions in Virginia Communities.

<sup>552</sup>County Defense to Hopewell Annexation, Vol. I, Table 1.

<sup>553</sup>Covered Employment and Wages in Virginia for Quarter Ending June 30, 1985.

ineligible to use the facilities at Fort Lee.

Finally, there are two additional considerations which affect the community of interest between Hopewell and the area it seeks to annex. First, there is a number of public and semi-public facilities in Hopewell which serve residents on the City's periphery.<sup>554</sup> Second, several of the largest concentrations of population in the area proposed for annexation (Jefferson Park and Stratford Woods subdivisions) are natural extensions of neighborhoods originating within the City.

In conclusion, there are a number of economic and social considerations which contribute to a substantial community of interest between Hopewell and the areas it seeks to annex.

#### Proposed Annexation Area - Prince George County

As was true with respect to the proposed Petersburg annexation, there are a number of factors which establish a community of interest between the area sought for annexation by Hopewell and outlying portions of Prince George County. Those factors include public service and economic considerations. In terms of the former, we note that school zones, recreational facilities, and other governmental services create tangible bonds between the area proposed for annexation by Hopewell and the remaining portion of Prince George County.<sup>555</sup> Again, however, it is the Fort Lee military reservation which constitutes the paramount factor meriting consideration with respect to the issue of community of interest in this context.

As noted previously, during federal FY1984-85 there were 3,997

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<sup>554</sup>Between July 1984 and April 1985 almost 50% of the approximately 2,100 persons who became members of the Hopewell Recreation Center were nonresidents of the City. Altogether 3,127 nonresidents have membership in this Center. (Hopewell Annexation Exhibits: Data, pp. 93-94.) The recently conducted County survey of households in the area proposed for annexation reported that 48.9% of the respondents stated that they attended religious services in the City of Hopewell. (County Defense to Hopewell Annexation, Vol. I, Table 1.)

<sup>555</sup>Various governmental and recreational facilities located in the vicinity of the Prince George County Courthouse serve the needs of residents in the area proposed for annexation.

civilian employees working at Fort Lee.<sup>556</sup> While those employees came from a number of localities in the region, Fort Lee provided Prince George County with a major source of employment opportunities supporting its own work force and economy.<sup>557</sup> In addition, the Fort Lee military reservation contains a post exchange, a commissary, and medical and recreational facilities which serve the needs of both active and retired military personnel living at Fort Lee and in adjacent areas.<sup>558</sup> Moreover, it must be noted again that, with the exception of public education, virtually all the service needs of Fort Lee are met internally, with little dependence on the services provided by any of the political subdivisions in the area. Clearly, the presence of Fort Lee in the area proposed for annexation dramatically affects the issue of community of interest and substantially lessens the ties between portions of that area and the City of Hopewell.

#### Relative Strength of Communities of Interest

While, in general, an examination of the community of interest issue in annexation cases will reveal that the municipality has nurtured and supported the economic and social life of its area, in the Petersburg and Hopewell annexation issues the presence of the Fort Lee military reservation qualifies that general pattern. Although it is evident that the two Cities have contributed to the development of the areas adjacent to them, Fort Lee represents a separate focal point of development, and one which serves active and retired military personnel in the area regardless of their place of residence. Due to the economic significance of Fort Lee and the pervasiveness of its role in the area, the community of interest consideration which normally supports

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<sup>556</sup>Burger, letter to staff of Commission on Local Government, Mar. 10, 1986.

<sup>557</sup>The data also indicate that, as of 1980, 20.4% of the employment positions in Prince George County were held by residents of the City of Hopewell. (Transportation and Commuting in Virginia, 1980.)

<sup>558</sup>The Fort Lee military installation also contains facilities which serve the banking and religious needs of military personnel in

municipal annexations does not prevail with respect to the military properties located in Prince George County. With respect to the non-military properties in the areas proposed for annexation, we have no difficulty concluding that the Cities of Petersburg and Hopewell have been, and remain, the principal factors nurturing their development.

#### ARBITRARY REFUSAL TO COOPERATE

Another factor prescribed for consideration in annexation actions is whether any of the affected jurisdictions has arbitrarily refused to cooperate in the joint provision of public services. The intent of the legislature in directing consideration of this issue, it appears to us, is to promote interlocal cooperation where such can be of mutual benefit to local governments and their residents. Recognizing that the State's boundary change laws have in the past inadvertently created barriers to interlocal cooperation, the General Assembly has sought, by means of this provision, to remove such impediments and to promote increased collaboration among the Commonwealth's units of local government. With respect to the annexation issues presently under review, this Commission has been presented no evidence of any instance of arbitrary refusal to cooperate by the three jurisdictions. Indeed, the evidence indicates that the three localities involved in these proceedings participate in a significant array of cooperative ventures, particularly with respect to multi-jurisdictional activities.<sup>559</sup> Such collaborative efforts among local governments are vital to this Commonwealth and should not be permitted to be endangered by boundary change proceedings. In our judgment, local governments must be assured that cooperative ventures do not redound to their detriment in annexation proceedings.

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the area.

<sup>559</sup>Included in the array of multi-jurisdictional activities in which the three localities participate are the Appomattox River Water Authority, the Appomattox Basin Industrial Development Corporation, and the Crater Juvenile Detention Facility.

## RECOMMENDATIONS

AREA RECOMMENDED FOR ANNEXATIONCity of Petersburg

Based upon the data previously reviewed in this report, the Commission recommends that the City of Petersburg be granted an annexation to include two parcels adjacent to its present corporate boundaries. First, the Commission recommends that the City be awarded that parcel of property adjoining its northeastern boundary encompassed by a line extending northward from the City's present corporate limits along the center of the Appomattox River to the southern right-of-way of Temple Avenue, then extending eastward along the southern right-of-way of that thoroughfare to the eastern right-of-way of the Norfolk and Western Railway, then extending in a southwestern direction to the eastern boundary of the National Park Service property, then extending in a southeastern direction along the boundaries of that property to an intersection with the present corporate limits of the City. Our calculations indicate that this area (hereinafter identified as the Northern Parcel) contains an area of 1.5 square miles and a population of approximately 50 persons. In addition, the Commission recommends that the City be awarded that portion of the area proposed for annexation southwest of a line extended from the northern right-of-way of the northeastern ramp of the proposed Interstate Highway 295 - U. S. Route 460 interchange to the southeastern boundary of the area proposed for annexation (State Route 630), following the boundary proposed by the City to the western right-of-way of U. S. Highway 301, and along that right-of-way to the current Petersburg boundary.<sup>560</sup> According to our calculations, this area (hereinafter identified as the Southern Parcel) contains 2.88 square miles and a population of approximately 300 persons. Thus, the

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<sup>560</sup>See Appendix B for map of the area recommended for annexation by the City of Petersburg.

two parcels recommended for annexation by the City contain, in the aggregate, an area of 4.4 square miles and a population of approximately 350 persons.<sup>561</sup>

While the above recommendations are founded upon consideration of the numerous factors previously reviewed in this report, there are several summary comments which should be offered here.

First, the data reviewed by this Commission clearly indicate that the City of Petersburg is a municipality confronting major fiscal concerns. The JLARC study recently completed, but based on 1983 data, found that only four of the State's 141 counties and cities experienced a degree of fiscal stress which equaled or exceeded that of Petersburg. Further, the recent loss of a major industry, the closing of a major retail outlet, and rising unemployment in the City's work force have not improved Petersburg's fiscal plight.

Second, the City of Petersburg, consistent with the State's concern for such matters, has made significant efforts to address the housing and public transportation needs of its residents. These efforts and other programs supported by the City have resulted in major fiscal burdens for Petersburg and social service expenditures many times that of Prince George County. Statistics indicate that, based on a variety of measures, the fiscal burden borne by Petersburg residents is, generally, double that of residents of Prince George County.

Third, while the City of Petersburg does retain a significant amount of vacant land topographically suited for development, that property is adversely affected in its development potential by the existing disparity in tax rates. Moreover, the construction of Interstate Highway 295 and its interchange with U. S. Route 460 will increase the visibility and accessibility of property adjacent to that road confluence, and will, in most instances, further erode the competitiveness and development potential of sites in the City.

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<sup>561</sup>The Commission does not have available data which permit a calculation of current assessed property values in the two parcels. The current total of assessed property values in the two parcels is

Similarly, the completion of the Temple Avenue extension will result, in our judgment, in the deflection of business and commerce from the City of Petersburg. The recommended annexation of the two parcels should provide the City with an increased opportunity to share in the economic activity influenced by those two thoroughfares.

Fourth, the Commission's recommended award to the City of Petersburg is conditioned by our recognition of the limited local fiscal resources currently available to Prince George County. The recently completed JLARC concluded that only three of the Commonwealth's 136 counties and cities had a local revenue capacity less than that of Prince George County. While the County's fiscal effort (i. e., the degree to which its local revenue base is utilized) has been in recent years only one-half that of Petersburg, and while the County possesses vast areas environmentally suited for development, its present resource base is limited. In view of these conditions, the Commission recommends a constrained extension of the City's boundaries, but one which permits the municipality an opportunity to share in the economic benefits of the new thoroughfares.<sup>562</sup> The Commission's recommendations in this case are founded, in large measure, upon a desire to mitigate the adverse effect of two new transportation arteries on a municipality already severely stressed in meeting the needs of its residents.

With respect to the territory recommended for annexation by Petersburg, this Commission is fully aware of the physical limitations which will inhibit development in the Northern Parcel. The annexation of this parcel will, however, extend the City's boundary to the Temple Avenue extension and will bring within the municipality at least two sites, totaling 300 acres, which are listed with the State's

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not, however, a factor affecting our recommendations.

<sup>562</sup>The areas recommended for annexation by Petersburg contain only modest development. The current fiscal impact on the County from the recommended annexation would be minimal.

Department of Economic Development.<sup>563</sup> Further, the annexation of this parcel will consolidate within the City the Petersburg National Battlefield Park, which is currently served by City sewerage.<sup>564</sup>

With respect to the Southern Parcel, the annexation of this property by the City will provide Petersburg with an increased opportunity to retain its share in the travel related business in the region and will provide the municipality with some of the property enhanced in its development potential as a result of the construction of Interstate Highway 295. While the Southern Parcel remains predominantly vacant with only scattered residential development, a portion of the territory immediately adjacent to the Interstate Highway 295 - U. S. Route 460 interchange is zoned for commercial usage and other property in the area has significant potential for future industrial development. We note that the area contains two sites, totaling approximately 90 acres, listed with the State's Department of Economic Development as a result of their industrial potential. While this Commission recognizes that the development of this area recommended for annexation, as well as territory within the present boundaries of the City, will be affected by the differential in tax rates in the City and Prince George County, the annexation of this area will provide Petersburg with increased opportunity to share in the economic activity stimulated by Interstate Highway 295. Without such an opportunity, Petersburg may well be confronted with growing fiscal concerns which increase the disparity in tax rates, further inhibiting the City's prospects for economic growth.

Finally, in terms of public services and facilities, the City of Petersburg should confront no difficulty in serving the area recommended for annexation. Moreover, the recommended award should have

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<sup>563</sup>Shumate, communication with staff of Commission on Local Government, Feb. 6, 1986.

<sup>564</sup>The City's former landfill and an unused municipally-owned water line are located within the area recommended for annexation.

little or no effect on the County's facilities and public services. The only County-owned public facility located within parcels recommended for annexation is a sewerage line adjacent to U. S. Route 460 which serves the Food Lion properties south of the City.

#### City of Hopewell

After consideration on the data previously reviewed in this report, the Commission recommends that the City of Hopewell be granted an annexation of three parcels adjoining its present corporate boundary. First, the Commission recommends that the City be permitted to annex that parcel of property adjoining its northwestern boundary owned by the Federal Correctional Institution but extended to the center of the Appomattox River. This recommended award (hereinafter cited as the Federal Correctional Institution Parcel) embraces a land area of 1.8 square miles and a population estimated at 739 persons.<sup>565</sup> Second, the Commission recommends that the City be permitted to annex that territory adjoining its southwestern boundary northwest of Bailey Creek and east of the boundary of the Fort Lee military reservation. This parcel (hereinafter identified as the Jefferson Park Parcel) contains the Lee Plaza Shopping Center as well as the Jefferson Park and Stratford Woods subdivisions. The Jefferson Park Parcel embraces a territory of 1.1 square mile containing an estimated population of 680 persons. Third, the Commission recommends that the City be awarded all of that portion of the territory proposed for annexation northeast of Manchester Run.<sup>566</sup> This area (hereinafter identified as the Hopewell East Parcel) embraces a land

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<sup>565</sup>The population at the Federal Correctional Institution is comprised of 695 inmates and 44 other residents on the property. (Hopewell Annexation Exhibits: Data, p. 18; and U. S. Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing, Block Statistics, Petersburg - Colonial Heights - Hopewell, Virginia Standard Metropolitan Statistical Area.)

<sup>566</sup>See Appendix C for map of the area recommended for annexation by the City of Hopewell. The area recommended for annexation extends to the Charles City County boundary at the center of the James

area of 5.1 square miles containing a population estimated at 300 persons. Thus, the parcels recommended for annexation embrace collectively a land area of approximately 8.0 square miles containing an estimated population of 1700 persons.<sup>567</sup>

The Commission's recommendations in this case are based on the multitude of considerations previously presented in this report. It is appropriate, however, to offer several summary comments here. First, the evidence indicates that the City of Hopewell is one of the State's more fiscally stressed localities. The recently completed JLARC study concluded that, based on 1983 data, Hopewell experienced a degree of fiscal stress which was exceeded by only two of the State's 136 cities and counties. The Commission's own analysis reveals that, based on a variety of measures, Hopewell residents bear a local fiscal burden generally more than double that of residents of Prince George County. Second, the City of Hopewell does have a need for additional land for development. While the amount of vacant land in the City is limited, some of that property is severely restricted in its development potential by parcel size, the nature of adjacent development, and location considerations. Third, while Prince George County does not confront the degree of fiscal stress experienced by its adjoining municipalities, it has, according to the JLARC analysis, a local fiscal resource base lower than that in all but three of the State's 136 counties and cities. The Commission's recommendations are based on recognition and reconciliation of these conditions.

With respect to public service considerations, the City of Hopewell has the requisite facilities and staff to serve properly the area recommended for annexation. Further, with the exception of sewer lines in the Jefferson Park Parcel, the area recommended for

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River. Excluded from the recommended award is the bridge on State Route 10 over the Appomattox River and the right-of-way for that facility. Also, the recommended award does not include the Benjamin Harrison Bridge over the James River.

<sup>567</sup>The area recommended for annexation by the Commission includes approximately 2.7 square miles of water area in addition to the 8.0

annexation is devoid of County-owned facilities. The award recommended by the Commission should not impair the capability of the County to serve its remaining residents.

In addition to the general findings mentioned above, the Commission's recommendations are founded on a number of specific considerations. In terms of the Federal Correctional Institution Parcel, the annexation of that property would bring under municipal authority territory currently served directly by City sewerage and remote from County facilities and services. While this property is now primarily vacant with only a limited number of institutional buildings, the evidence suggests that it may eventually be made available for other public usage.<sup>568</sup> Moreover, the possible construction of an Interstate Highway 295 - River Road interchange could stimulate development in the area, creating a need for services which could best be addressed by Hopewell. At the current time, however, the annexation of the Federal Correctional Institution Parcel carries no immediate benefit for the City of Hopewell.

The Jefferson Park Parcel is the only area recommended for annexation which would provide the City with an immediate infusion of population and tax resources. The annexation of this property would bring within the corporate boundaries of the City the Lee Plaza Shopping Center and its adjacent commercial development as well as a portion of the Interstate Highway 295 - State Route 36 interchange which is currently planned for construction in the County.<sup>569</sup> In

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square miles of land area.

<sup>568</sup>The Commission has been advised that the Federal Correctional Institution has declared as surplus approximately 591 acres of its property and has offered that property to other governmental entities for "public" use. If the property cannot be used by the State or local governments for a public purpose, it will be sold at auction to the highest bidder. Currently the Virginia Department of Corrections is seeking to acquire the property for agricultural purposes. (John E. Forrest, State Real Property Coordinator, Virginia Department of General Services, letter to B. C. Maltby, Disposal Division, U. S. General Services Administration, May 5, 1986.)

<sup>569</sup>It is significant to note that the construction of the

addition, the Jefferson Park Parcel would provide Hopewell with several existing subdivisions and land for future residential growth. The Jefferson Park Parcel contains, according to our estimate, approximately \$23 million in assessed property values, or 77% of the total of such values within the entire area recommended for annexation (\$30 million).

The recommended annexation of the Hopewell East Parcel will provide the City with a large amount of vacant land suitable for future development. While this property is now primarily vacant and zoned, in the main, for agricultural usage, it does contain at least five sites which the City has identified as having significant development potential.<sup>570</sup>

With respect to the issue of the impact on Prince George County of the recommended annexation by the City of Hopewell, the award does not remove from the County any of its industrial sites listed with the State's Department of Economic Development. The award does, however, propose the annexation of Lee Plaza and its adjacent property, which constitutes the County's largest concentration of commercial activity. Annexation of this commercial area is, however, justified by the relative fiscal needs of the two jurisdictions. In regard to public facilities, the only County-owned and operated facilities serving the area recommended for annexation are sewage collection lines in the Jefferson Park Parcel.<sup>571</sup> Since the reviewing court possesses the authority to permit the County's retention of those lines or, in the

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Interstate Highway 295 - State Route 36 interchange will result in the displacement of some of the City's existing commercial establishments in order to accommodate its ramps and approaches. This pending displacement increases the City's need to augment its tax base.

<sup>570</sup>See Hopewell Annexation Exhibits: Maps, Exh. M-10.

<sup>571</sup>The Jefferson Park Parcel contains 443 sewer connections, or 35.5% of the County's total.

alternative, to require the City's compensation for them, an equitable resolution of this issue will be provided.

#### Cumulative Award

The Commission has recommended that the court grant annexations by the Cities of Petersburg and Hopewell which encompass collectively 12.4 square miles of land area containing approximately 2,050 persons. Thus, the Commission's recommendations would transfer to the Cities 4.4% of the County's land area and approximately 7.9% of its estimated 1984 population.<sup>572</sup> Excluded from the areas recommended for annexation is the property of the Fort Lee military reservation. As the preceding sections of this report have indicated, the Fort Lee facility is, in the main, free from dependence on adjacent localities for the provision of urban services. Moreover, the annexation of the military installation would not enhance the local fiscal resources or development potential of the municipalities. This Commission fails to find a suitable basis for recommending the annexation of any portion of the Fort Lee military reservation by either of the adjacent Cities.

Considered collectively, the areas recommended for annexation by this Commission would transfer to the municipalities only four of the 13 sites in Prince George County listed with the State's Department of Economic Development as a result of their potential for industrial usage.<sup>573</sup> While the annexation recommended for Hopewell would remove from the County its largest concentration of commercial activity (Lee Plaza and adjacent development along State Route 10), this property is the only portion of the recommended award which will pro-

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<sup>572</sup>Included in the population which would be annexed by the municipalities, if the Commission's recommendations are approved by the court, are approximately 1,300 residents residing outside the federally-owned properties, or 8.6% of the 1984 estimate of the County's population residing off the federally-owned territory.

<sup>573</sup>The four sites listed with the Department of Economic Development which would be annexed by the municipalities under

vide the City with an immediate infusion of population and fiscal resources. The County will retain vast acreage suitable for all types of development, including three interchanges along Interstate Highway 95 south of Petersburg. Moreover, with the exception of a concentration of sewer connections in the Jefferson Park Parcel, the areas recommended for annexation are virtually devoid of County-owned and maintained public facilities. In sum, from our perspective, the recommended awards are an equitable reconciliation of interests of the three jurisdictions and of the factors prescribed for consideration in annexation actions.<sup>574</sup>

#### FINANCIAL SETTLEMENT PROVISIONS

In balancing the equities in an annexation case the court is given broad authority. Based upon the size and nature of the area awarded a city, the court is empowered to require equitable adjustments (1) relative to a county's indebtedness, (2) regarding county-owned improvements affected by the annexation, and (3) with respect to a county's loss of net tax revenue during the years immediately following the annexation. In anticipation of the court's addressing these issues, Prince George County and the Cities of Petersburg and Hopewell have submitted financial data relative to these matters to the Commission for review and comment. The following sections of this report address these issues.

#### Assumption of Debt By Cities

The Code of Virginia authorizes an annexation court to require a city to assume "a just proportion of any existing debt of the county" at the time of the annexation in recognition of the fact that annexation will impair the county's ability to retire such indebted-

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the Commission's recommendations contain collectively 390 acres. The nine sites which would be unaffected by the recommended annexations contain a total of 1350 acres.

<sup>574</sup>If the Commission's recommendations in the Hopewell annexation action are ultimately approved by the court, the completion of Interstate Highway 295 will leave several small "islands" of Fort Lee

ness."<sup>575</sup> The parties to these proceedings have proposed different methodologies by which the amount of debt to be assumed by the annexing municipalities should be calculated. Both the City of Hopewell and Prince George County have asserted that the annexing municipality should assume a percentage of the County's debt equivalent to the percentage of the County's total assessed property values annexed by the municipalities.<sup>576</sup> Alternatively, the City of Petersburg has contended that it should be expected to assume a percentage of the County's debt equal to the percentage of the County's assessed real estate values (as opposed to all property values) which it annexes.<sup>577</sup> Annexation courts in Virginia have prescribed over the years debt assumption utilizing each methodology.

In contrast to the methodologies cited above, the Commission recommends that the court in these proceedings establish the debt to be assumed by the Cities on the basis of the percentage of the County's total local tax revenues (as that term has been defined by the Virginia Supreme Court annexed by the municipalities.<sup>578</sup> From our experience, a county will contract for long-term debt based on its anticipated receipts from all local revenue sources, not merely on the

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property isolated on the eastern side of that thoroughfare. If the U. S. Army eventually decides to divest itself of that property, it should be brought into the City of Hopewell through a negotiated boundary adjustment.

<sup>575</sup>Sec. 15.1-1042(b), Code of Va.

<sup>576</sup>For the County's position on this issue see County Defense to Petersburg Annexation, Vol. III, Tab 1, Table 5; County Defense to Hopewell Annexation, Vol. I, p. 14; Albert, letter to staff of Commission on Local Government, Feb. 5, 1986. For Hopewell's position see Hopewell Annexation Exhibits: Data Supplement, pp. 3-4, 11.

<sup>577</sup>See Petersburg Annexation Notice, Vol, I, pp. 5-8, 5-9, 14-2.

<sup>578</sup>See County of Rockingham v. City of Harrisonburg, 224 Va. 62, 89.

basis of revenues to be derived from property taxes. For many Virginia counties nonproperty tax revenues are becoming increasingly significant in meeting their fiscal obligations, including debt retirement. Moreover, due to the tendency for commerce, and economic activity in general, to locate in close proximity to population centers, areas annexed may often generate a disproportionate share of a county's sales, business license, utility, bank stock, and other nonproperty taxes. From our perspective, an assumption of debt based on the percentage of a county's total local taxes lost through annexation is appropriate and more equitably assists a county during a period of transition. While the Commission does not have available data which would permit it to propose specific debt assumption percentages based upon our recommendations in the annexation issues under review, we encourage the parties to develop and present to the court data which will enable it to apply the methodology suggested herein.

#### Compensation for County-Owned Public Improvements

With respect to the County-owned and maintained facilities in the areas recommended for annexation, the Commission encourages the three jurisdictions to negotiate agreement regarding their disposition. In the event that agreement cannot be reached, the Commission recommends that the City of Petersburg be directed to purchase (1) the water lines extending south of the Temple Avenue extension into the area recommended for annexation, (2) that portion of the sewer line along U. S. Route 460 between the pump station at State Route 106 and the boundary of the area recommended for annexation, and (3) that portion of the sewer line and force main along U. S. Route 301 needed to serve the area recommended for award to the City.<sup>579</sup> Further, assuming the absence of agreement between the jurisdictions, the Commission recommends that the City of Hopewell be directed to purchase from the

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<sup>579</sup>See County Defense to Petersburg Annexation, Vol. II, Exhs. 4, 6; and Petersburg Annexation Notice, Vol. III, Exh. P-8R.

County all existing sewer lines serving the Jefferson Park Parcel and those under construction.<sup>580</sup> All other County-owned facilities in the areas recommended for annexation could be retained by the County to serve outlying properties.<sup>581</sup>

#### Compensation For the Prospective Loss of Net Tax Revenue

Under the Code of Virginia, an annexation court may mandate that a County be compensated for its prospective loss of net tax revenue (LNTR) stemming from the annexation of its taxable values by a city. At the discretion of the court, the municipality in question may be required to carry an LNTR burden covering a period of up to five years after the annexation. The court possesses the option, moreover, of allowing the city to pay the county in annual installments over the specified time period.<sup>582</sup>

County Revenue Loss: The Base-Year. The determination of a multi-year LNTR compensatory figure should begin with the establishment of the County's gross local tax revenue loss in relation to a selected "base-year." In the view of the Commission, the optimal accounting interval for this exercise is the revenue year completed immediately prior to the scheduled annexation date. Estimates of the County's prospective loss from all categories of local taxation should be derived from audited data relating to the designated base-year.<sup>583</sup> If a complete data profile is unavailable for the preferred accounting period, then the entire analytic effort should be conducted with audited statistics for the preceding revenue year. After the base-year has been identified, the determination of revenue

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<sup>580</sup>County Defense to Hopewell Annexation, Vol. II, Exhs. 4, 6.

<sup>581</sup>The water line along Temple Avenue and the sewer line under construction along Manchester Run are designed to serve connections outside the areas recommended for annexation.

<sup>582</sup>Sec. 15.1-1042 (c), Code of Va.

<sup>583</sup>In two previous reports we have urged the use of audited data and adherence to other principles in the determination of a base-year LNTR. If these principles are accepted by parties in annexation

loss with respect to each local tax source should be undertaken through direct measurement<sup>584</sup> or, when such an approach is infeasible, through the utilization of a methodologically sound quantitative allocation factor which attributes a portion of countywide revenue data to the annexation area. It should be emphasized that the concept of tax revenue, as the Virginia Supreme Court has declared, applies only to "monies a county collects from taxes it levies upon assets, transactions, and privileges within its taxing jurisdiction."<sup>585</sup> It is the judgment of the Commission that, under the existing judicial norm, any receipts derived from (1) penalties and interest<sup>586</sup> or (2) federal impacted-area grants for education<sup>587</sup> do not represent local tax funds; and, in consequence, we reject Prince George County's position that revenues from such sources may be included in the calculation of a city's LNTR respon-

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proceedings, the difficulties encountered in making such determinations will be reduced. The various notes referencing our previous reports are for purposes of identifying our earlier extended comment on these principles. See Report on the Financial Settlement Provisions of the City of Waynesboro - County of Augusta Annexation Action (hereinafter cited as Report on the Financial Settlement Provisions of the Waynesboro Annexation), Aug. 1983, p. 10; and Report on the Immunity and Financial Settlement Provisions of the City of Staunton - County of Augusta Settlement Agreement (hereinafter cited as Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement), Sep. 1985, p. 57.

<sup>584</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 11; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, pp. 57-58.

<sup>585</sup>County of Rockingham v. City of Harrisonburg, 224, Va. 62, 89.

<sup>586</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, pp. 11-12; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, p. 58.

<sup>587</sup>According to the Virginia Supreme Court, "the funds a county hopes to derive from State and federal appropriations are not prospective 'tax revenues' within the contemplation of Code, Section

sibility to a county.

County Expenditure Reduction: The Base-Year. The Virginia Supreme Court has ruled that a county's LNTR for a particular year is the difference between its loss of local tax revenue and "the amount of budgetary expenditures annexation saves [the] county."<sup>588</sup> The notion of cost reduction, as employed by the Supreme Court, embraces governmental savings in three categories -- noneducational operating expenditures, educational outlays, and debt service payments. Any effort, then, to establish a county's LNTR entitlement during a base-year requires an estimate of its prospective savings regarding these expenditure categories. In relation to noneducational operating expenditures and educational costs, the preferred accounting period for such a calculation, as we have already suggested, is the fiscal year most closely coinciding with the time frame used for the determination of revenue loss.<sup>589</sup> With reference to that time frame (i. e., the base-year), estimates of the county's anticipated savings

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15.1-1042(c)." (County of Rockingham v. City of Harrisonburg, 224, Va. 62, 89.) In this regard the Commission notes that federal impact aid is formally designated as intergovernmental revenue by the State Auditor's office. (Auditor of Public Accounts, Uniform Financial Reporting Manual for Virginia Counties and Cities (hereinafter cited as State Auditor's Financial Reporting Manual), Jan. 1985, pp. 3-41, 42.) We observe, too, that even the County has routinely listed impacted-area grants under the heading of "Revenue from the Federal Government" in its recent annual audit reports. (See, for example, County of Prince George, Virginia, Financial Report (hereinafter cited as County Financial Report), FY1980-81 -- FY1984-85, Schedule 1.) For normal record-keeping purposes, then, Prince George County has refrained from classifying such funds as if they were "the economic equivalent of local taxes," a characterization employed by that locality within the context of the present annexation issues. (County Defense to Petersburg Annexation, Vol. III, Tab 4, p. 1; testimony of Cox, Proceedings, Oct. 31, 1985, p. 1240; and testimony of Cox, Proceedings, Nov. 15, 1985, p. 843.)

<sup>588</sup>County of Rockingham v. City of Harrisonburg, 224, Va. 62, 89.

<sup>589</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 12; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, p. 64.

should be developed on the basis of audited expenditure data.<sup>590</sup> Once the base-year for expenditure calculations has been established, the county's initial-year cost reductions should be estimated through direct measurement of the incidence of governmental facilities, services, and program clients within the annexation area.<sup>591</sup> If expenditure savings cannot be assessed in this manner, then statistical distribution factors may, in our judgment, be utilized, provided they conform to generally accepted standards of conceptual and methodological adequacy, for the purpose of inferring annexation-related expenditure savings from relevant countywide data. After these direct or indirect techniques have been employed to estimate gross expenditure reductions for each public service or function, a determination should be made of the county's net local tax savings<sup>592</sup> (i. e., the econo-

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<sup>590</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 10; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, p. 64.

<sup>591</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 12; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, p. 65.

<sup>592</sup>As defined by the Commission, the concept of net local savings does not encompass negative cost reductions (i. e., the increased levels of local tax-dollar financing that would allegedly be required of a county with respect to particular governmental activities for the purpose of replacing any related categorical revenues, whether local nontax receipts or intergovernmental aid, whose decline following a city annexation was greater than the total service-connected economies stemming from the boundary line revision.) It is our view that no allowance should be made for the replacement of such categorical funds in the estimation of an annexing city's base-year LNTR responsibility, the scope of which is limited to the county's prospective loss of tax revenues in excess of its diminished spending of such monies for governmental operations and debt service pertaining to the transferred territory. (See Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 16; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, pp. 72-73.) Accordingly, we reject the argument of Prince George County that its first-year LNTR entitlements from Petersburg and Hopewell should take measure of certain post-annexation cost increases (or negative savings) which the County anticipates as the result of declining intergovernmental and/or local nontax revenues in the areas of general government administration, judicial administra-

mies which entail a reduced utilization of local tax revenues.)<sup>593</sup> Finally, with respect to the county's first-year debt service reduction, this amount should be calculated in accordance with the principle that the city will assume, as of the effective date of the annexation, a proportion of the county's outstanding general obligation debt which corresponds to the percentage of local tax revenues collected from the annexation area by the county during the base-

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tion, public safety, public works, and health and welfare. A corollary point, we might add, is that the base-year LNTR estimates submitted by the County should not reflect, as they presently do, any increases expected in that locality's categorical revenues (i. e., school tuition and enrollment loss payments) following the annexation of County land. (County Defense to Petersburg Annexation, Vol. III, Tab 4; testimony of Cox, Proceedings, Oct. 31, 1985, pp. 1234-1236; Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; County Defense to Hopewell Annexation, Vol. III, Tab A, p. 36; testimony of Cox, Proceedings, Nov. 15, 1985, pp. 818-819, 840-841, 861-863; and Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986.)

<sup>593</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, pp. 12-13; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, p. 65. Across the universe of functional categories, the tax-related savings are those diminished expenditures which cannot be ascribed to the county's reduced application of (1) local nontax revenues, (2) intergovernmental aid (both categorical and noncategorical), (3) recovered costs, (4) nonrevenue receipts, and (5) fund balances from the previous year. With respect to each of the issues currently before the Commission, we observe that neither party has completely isolated the base-year tax savings component of the gross expenditure reductions attributable to Prince George County as a result of the proposed annexation. (See City of Petersburg, Exhibit No. P-D (hereinafter cited as Petersburg Exhibit No. P-D), submitted to the Commission on Oct. 30, 1985; City of Petersburg, Enclosure 19 (hereinafter cited as Petersburg Enclosure 19), submitted to the Commission on Feb. 14, 1986; County Defense to Petersburg Annexation, Vol. III, Tab 4 (LNTR exhibit); Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; City of Hopewell, Exhibit No. 10A (hereinafter cited as Hopewell Exhibit No. 10A), submitted to the Commission on Nov. 14, 1985; Wooldridge, letter to staff of Commission on Local Government, Jan. 31, 1986; County Defense to Hopewell Annexation, Vol. III, Tab A, p. 36; and Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986.)

year.<sup>594</sup>

LNTR: The First Year. The LNTR of a county during a given year is the estimated difference between its loss of local tax revenues and its net local expenditure savings as the result of an annexation. With respect to the cases presently under review, the Commission notes that Prince George County has submitted base-year compensatory figures of \$2,964,696<sup>595</sup> and \$961,140<sup>596</sup> in relation to the proposed Petersburg and Hopewell annexations, respectively. These proffered

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<sup>594</sup>Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 3; and Report on the Immunity and Financial Settlement Provisions of the Staunton - Augusta Agreement, pp. 49-50, 77. In regard to each of the current annexation filings, Prince George County has suggested that the debt assumption responsibility of the petitioning locality be linked to the percentage of the County's total assessed property values within the requested area. (See Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; County Defense to Petersburg Annexation, Vol. III, Tab 1, Table 5; Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986; and County Defense to Hopewell Annexation, Vol. I, p. 14.) Although Hopewell has concurred with this allocation principle, Petersburg's contention is that its debt service burden should rest solely upon the proportion of assessed real estate values that the County would lose in the event of a City annexation. [See Hopewell Annexation Exhibits: Data Supplement, pp. 3-4, 11; Robert W. Wooldridge, Jr., Special Counsel, City of Hopewell, letter to staff of Commission on Local Government, p. 13; Petersburg Annexation Notice, Vol. I, pp. 5-8 and 9, 14-2; Petersburg Enclosure 19, p. 4; and City of Petersburg, Concluding Arguments With Proposed Findings and Recommendations on Behalf of The City of Petersburg (hereinafter cited as Petersburg Proposed Findings, p. 64.)] From our perspective the debt assignment approach that we have advanced represents the most suitable of the proffered methods, for it takes cognizance of the fact that Prince George County retires its long-term indebtedness with revenues from all local tax sources, not simply those reflecting property assessables. The significance of this consideration, we observe, is one that the County readily acknowledges. (County Defense to Petersburg Annexation, Vol. 3, Tab. 4, pp. 2-3.)

<sup>595</sup>County Defense to Petersburg Annexation, Vol. III, Tab 4 (LNTR exhibit).

<sup>596</sup>County Defense to Hopewell Annexation, Vol. III, Tab A, p.

amounts, we observe, rest upon the County's analysis of data contained in its budget document for FY1985-86.<sup>597</sup> Each City, while accepting many of the revenue loss and expenditure reduction estimates developed by Prince George County, has generated a first-year LNTR total that diverges markedly from the County's determination of its appropriate entitlement. The compensatory figure advanced by Petersburg is \$557,153,<sup>598</sup> an amount derived from the City's examination of the County's FY1982-83 audit report, the State Auditor's FY1982-83 comparative survey of local fiscal data, and the County's FY1985-86 budget.<sup>599</sup> Hopewell's proposed base-year figure of \$634,066<sup>600</sup> is founded largely upon that City's review of two County financial sources, the FY1983-84 audit report and the FY1985-86 budget document.<sup>601</sup> In each of the issues presently before us, then, the localities have not followed the Commission's recommendation that first-year LNTR estimates be constructed entirely from audited statistics for a single referent year. Accordingly, if an annexation award is made to either City, we recommend that the court direct the affected localities, working cooperatively, to employ such data for the purpose of establishing a joint estimate of the County's LNTR entitlement on the basis of the Commission's proposed analytic guidelines.

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<sup>597</sup>See Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986; and County of Prince George, Adopted 1985-86 Budget (hereinafter cited as County Budget, FY1985-86).

<sup>598</sup>Petersburg Exhibit No. P-D.

<sup>599</sup>See Petersburg Enclosure 19; Petersburg Annexation Notice, Vol. I, p. 14-6; and testimony of Wade, Proceedings, Oct. 29, 1985, pp. 607-11.

<sup>600</sup>Hopewell Exhibit No. 10A.

<sup>601</sup>See Wooldridge, letter to staff of Commission on Local Government, Jan. 31, 1986; and testimony of Zollman, Proceedings, Nov. 14, 1985, pp. 548-52.

Calculation of LNTR over a Five-Year Period

Under the Code of Virginia an annexation court may, as noted previously, require a city to compensate a county for the latter's anticipated loss of net tax revenue during the five-year interval following an annexation. In the cases presently before this Commission, the municipalities have taken divergent approaches to the estimation of their respective LNTR obligations over the course of the compensatory interval. We note that Petersburg has proposed the multiplication of its base-year estimate of \$557,153 by a factor of "5" to generate a total payment obligation of \$2,785,765.<sup>602</sup> The City's computational technique is, thus, founded on the assumption that Prince George County's annual loss of net tax revenue will remain constant during the five-year period immediately following the effective date of the annexation.<sup>603</sup> Hopewell, rejecting Petersburg's "static" adjustment concept, has advanced the position that its financial responsibility to Prince George County should be escalated from one year to the next throughout the LNTR interval on the basis of the annual percentage change in the cost of living within the private sector of the economy.<sup>604</sup> The City's approach (which yields an estimated payment total of \$3,606,160 across five years)<sup>605</sup> rests on the expectation that growth in the County's net tax revenue loss, though certain to occur, will not exceed the U. S. inflation rate during the

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<sup>602</sup>Petersburg Exhibit No. P-D; Petersburg Enclosure 19; testimony of Wade, Proceedings, Oct. 29, 1985, pp. 610-12; Wade, communication with staff of Commission on Local Government, Apr. 23, 1986; and Petersburg Proposed Findings, p. 67. See, also, Petersburg Annexation Notice, Vol. I, p. 14-6.

<sup>603</sup>Testimony of Wade, Proceedings, Oct. 29, 1985, p. 612; and Petersburg Proposed Findings, p. 67

<sup>604</sup>Testimony of Dr. Thomas Muller, Consultant, City of Hopewell, Proceedings, Nov. 14, 1985, pp. 617, 620; and Muller, communication with staff of Commission on Local Government, Apr. 11, 1986.

<sup>605</sup>See City of Hopewell, Exhibit No. 10B (hereinafter cited as Hopewell Exhibit No. 10B), submitted to the Commission on Nov. 14,

post-annexation period. Embracing a different methodological perspective from that of either municipality, Prince George County has recommended five-year compensatory amounts of \$18,277,647<sup>606</sup> and \$5,718,676<sup>607</sup> for Petersburg and Hopewell, respectively. These figures emanate from the County's application of an equation-based forecasting approach to local and Statewide data for each year of the LNTR period.<sup>608</sup> In the County's view, its projection strategy, while imperfect, stands above alternative techniques, especially Petersburg's static method, as a means for estimating the relationship between revenue loss and expenditure reduction across the compensatory interval.

#### County Projection Methodology

The local tax revenue loss resulting from either of the proposed annexations can be projected, according to Prince George County, through the utilization of a methodology which combines the lessons of history with information concerning the structural relationships among the key variables that shape the governmental receipts and outlays of a jurisdiction. The "fiscal component" technique, as it has been

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1985; and testimony of Muller, Proceedings, Nov. 14, 1985, pp. 617-18. The City's LNTR figures, which have been offered for illustrative purposes, are based on the assumption that the cost of living will rise 4% each year throughout the compensatory interval. Yet, Hopewell acknowledges that the annual inflation rate may vary from the hypothesized level during the post-annexation period. (Testimony of Muller, Proceedings, Nov. 14, 1985, pp. 617, 620; and Muller, communication with staff of Commission on Local Government, Apr. 11, 1986.) Under the City's computational method, then, the magnitude of its actual five-year payment obligation could ultimately differ from the LNTR total supported by Hopewell's exhibit.

<sup>606</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 8.

<sup>607</sup>County Defense to Hopewell Annexation, Vol. III, Tab B, p. 65.

<sup>608</sup>When applied to a given annexation area during the base-year, five of the proposed formulas (excluding the real property equation) should yield, in principle, gross revenue figures that

called, focuses upon each major category of taxation, establishes a formula identifying the factors which determine a locality's receipts from each, assigns official or "reasonable" numeric estimates to the respective factors, and--in this fashion--emerges with a prediction for any given year of the revenues that Prince George County will lose with respect to the tax category in question.<sup>609</sup> The objective of its forecasting model, in the County's view, "is not to predict with complete accuracy the absolute dollar loss in net tax revenues as a consequence of annexation."<sup>610</sup> The purpose behind the methodology, instead, is that of presenting a comprehensive examination of the fundamental elements "which may influence the five-year LNTR and the magnitude of the dollar value."<sup>611</sup> Described in such fashion, then, the fiscal component approach constitutes a vehicle for illuminating certain factors which condition local public finance and should not, we are advised, be viewed as a system of finely calibrated measuring

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replicate the "official" estimates derived from Prince George County's FY1985-86 budget. As operationalized by the County, however, these equations have generated first-year totals which fail to match the expected values by margins ranging from -\$14,414 to \$181 in relation to the Petersburg case and from -\$1,012 to \$128 with respect to the Hopewell issue. Turning to the real property formula, we note that this algebraic expression, which is technically a device for the computation of tax levies rather than aggregate revenues, has produced base-year values of \$464,226 and \$428,405 in regard to the Petersburg and Hopewell filings, respectively. Each of these figures, paradoxically, is somewhat higher than the County's formal budgetary estimate of its total FY1985-86 revenues (reflecting current taxes, delinquent taxes, land redemptions, and rollback taxes) from the area sought for annexation. [County Defense to Petersburg Annexation, Vol. III, Tab 4 and Tab 5 (Exhs. 1-6); and County Defense to Hopewell Annexation, Vol. III, Tab A (p. 36) and Tab B (pp. 57-62).]

<sup>609</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 11; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 47.

<sup>610</sup>Dr. Alan W. Steiss, Consultant, County of Prince George, letter to staff of Commission on Local Government, Jan. 24, 1986.

<sup>611</sup>Ibid. The underscoring has been added for emphasis.

devices. Since the County's proposed methodology has not previously been presented to the court for consideration, the Commission believes that extended comment on its attributes is required in this report.

With respect to the Petersburg and Hopewell annexation proposals, the County's forecasting strategy, as just outlined, has been applied to the estimation of probable revenue losses from the real estate tax, the personal property tax, the local option sales tax, the "schoolaged distribution" component of the State sales tax (i. e., the 1% returned to localities for educational purposes), business license fees, and utility consumption taxes. At first glance the fiscal component method might also appear to be amenable, in the County's terms, to the prediction of net local expenditure savings as well as losses pertaining to "secondary" revenue categories (i. e., the machinery and tools tax, the mobile homes tax, the public service corporation tax, the motor vehicle license tax, franchise taxes, recordation taxes, penalties and interest,<sup>612</sup> and federal school aid). Yet, Prince George County has rejected the use of this fiscal method in relation to those fiscal elements because its component-based approach, particularly when applied to the projection of expenditures, would yield "problematic" results.<sup>613</sup> In forecasting net local economies and the revenue losses associated with all but one<sup>614</sup> of these elements, the County has simply "projected forward" the relevant base-year amounts under the assumption that increases will occur annually at a

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<sup>612</sup>As we have already observed, the funding elements of penalties and interest do not satisfy the judicial definition of local tax sources applicable to the calculation of a city's LNTR payment burden. See County of Rockingham v. City of Harrisonburg, 224, Va. 62, 89.

<sup>613</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 19; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 55.

<sup>614</sup>The one exception to the approach was the County's projection of its loss of federal educational assistance. Basing its position on an examination of "federal inflators," the County has assumed that the annexation-related loss of national school aid (i. e., impacted-area grants in support of education) will rise at an annual rate of 12% during the compensatory period. (Testimony of Steiss,

fixed rate of 6.8%.<sup>615</sup> This constant growth factor reflects the average annual percentage change in the gross local expenditures recently recorded for various jurisdictions which have been selected by Prince George County from a computerized national data set on the basis of their similarity to the County in terms of such factors as population, urban-rural character, and scope of service provision.<sup>616</sup> Prince George County has furnished no empirical evidence, however, to support its expectation that the short-term pattern of total local spending by the selected jurisdictions, including some outside Virginia, will be significantly predictive of secondary revenue losses and tax-financed expenditure savings within the areas proposed for annexation by Petersburg and Hopewell during the LNTR period. The projection technique embraced by the County, though quite simple and clear, lacks compelling justification.

Returning to the fiscal component approach, which is utilized by the County for the projection of its revenue loss in the major local tax categories, we are obliged to express several reservations. In addressing this matter, the Commission will consider the efficiency of the County's revenue equations, the adequacy of the assumptions

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Proceedings, Oct. 31, 1985, p. 1261; and County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 19; and County Defense to Hopewell Annexation, Vol. III, Tab 8, p. 55.) Although a growth factor of this magnitude would appear optimistic in the context of the Gramm-Rudman spending cuts recently approved by Congress, the more salient consideration is that federal impact funds, as classified by the State Auditor, constitute intergovernmental payments to the recipient jurisdictions. (State Auditor's Financial Reporting Manual, Jan. 1985, pp. 3-41, 42.) Such grants, then, lie beyond the perimeter of the County's local tax system and, consequently, should not be reflected in the projection of its LNTR entitlements from Petersburg and Hopewell.

<sup>615</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 19; and County Defense to Hopewell Annexation, Vol. III, Tab 8, p. 55.

<sup>616</sup>Ibid.; Steiss, communication with staff of Commission on Local Government, Jan. 21, 1986.

underlying the several formulas, and the acceptability of the "future" data (i. e., projected values for population, personal income, etc.), which are utilized in the various formulas.<sup>617</sup> According to the County, a desirable attribute of the fiscal component method is that this forecasting technique occupies the intermediate distance between a methodology which is so complex that it defies comprehension and one that is so elementary as to be trivial.<sup>618</sup> From Prince George County's standpoint the formulas subsumed under the fiscal component rubric are statements of the salient factors which condition revenue variation and, at the same time, are readily comprehensible. In strictly algebraic terms, however, the forecasting equations utilized by the County are overstated, and, accordingly, their apparent breadth and sophistication are somewhat misleading. An examination of the real estate revenue formula discloses, for example, that most of its terms are arithmetically redundant and, indeed, offset one another. The elements of Countywide assessed valuation, Countywide full market value, and Countywide personal income are so arranged within the formula that each instance of one of these factors is canceled by another occurrence of the same element.<sup>619</sup> Once the redundant terms of the formula have been removed, the only surviving factors are its truly essential components--the property tax rate and the level of assessed valuation in the annexation area. In reviewing the County's other equations for the prediction of revenue loss, the Commission has noted that several of these formulas, as that utilized for the real estate tax, contain recurring instances of factors which offset one

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<sup>617</sup>Our evaluation of the fiscal component method has been based upon the material presented in County Defense to Petersburg Annexation, Vol. III, Tab 5; and County Defense to Hopewell Annexation, Vol. III, Tab 8.

<sup>618</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 10; and County Defense to Hopewell Annexation, Vol. III, Tab 8, p. 46.

<sup>619</sup>Prince George County has alleged that the market value terms of the real estate tax formula do not "cancel out" because they are lodged within ratios which constitute independent factors. Yet, the County's consultant has acknowledged that these elements are

another.<sup>620</sup> In sum, four of Prince George County's fiscal component equations are inefficiently specified, containing components which, in a strict algebraic sense, must be viewed as superfluous. Most of the County's equations, then, are somewhat simpler and less encompassing in breadth than would appear to be the case at first glance.

Aside from these algebraic shortcomings that affect the fiscal component method, Prince George County's equations are flawed because of their inordinate reliance on premises for which sufficient supporting evidence has not been presented. In this regard the real property tax equation deserves mention. The County has suggested that during the 1986-90 interval two factors in the formula (the ratio of assessed values to market values throughout the jurisdiction and the local real estate tax rate) will exhibit, to a substantial degree, yearly variations consistent with the "established patterns" for such dimensions over the course of a four to six year reassessment cycle.<sup>621</sup> In relation to each factor, however, the County has merely proffered a set of expected annual values without adequately documenting the methodological and empirical bases for the specific projections. The County's quantification of the two variables may have been governed, indeed, by the principle that projections of the

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algebraically redundant and that the tax equation, when solved arithmetically with data for a specific year, will generate identical (therefore offsetting) scores for the market value components. (County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 14; County Defense to Hopewell Annexation, Vol. III, Tab B, p. 50; and testimony of Steiss, Consultant, County of Rockbridge, transcript of proceedings, City of Lexington - Rockbridge County Annexation and Immunity Actions, Vol. III, pp. 206-07.)

<sup>620</sup>The formulas proposed by the County for the determination of its losses in the local option sales tax, business license tax, and State sales tax categories include a series of factors which cancel one another and, thus, are algebraically inessential. Such factors include Countywide revenue and Countywide personal income in the local option sales tax and business license tax formulas and the Countywide schoolage population in the State sales tax formula.

<sup>621</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, pp. 12, 14-15; and County Defense to Hopewell Annexation, Vol. III, Tab B,

future must often stem from "educated assumptions" or "guesstimations."<sup>622</sup>

It should be noted, too, that many other factors in the County's various equations have been assigned projected values that lack, in our judgment, sufficient warrant. The Commission observes that each of the fiscal component formulas, as applied to the proposed Petersburg or Hopewell annexation areas, contains at least one factor concerning which Prince George County has arbitrarily assumed that the statistic for the base-year or some other specified period<sup>623</sup> (e. g., calendar year 1983, fiscal year 1983-84, or tax year 1985) will constitute the sole value of that factor throughout the LNTR interval.<sup>624</sup> This approach can be seen in the County's treatment, for the 1986-90 period, of the relationship of Countywide full market values to Countywide personal income and the ratio of annexation area assessed values to Countywide assessed values in the real property revenue equation; the "real" (i. e., noninflationary) per capita tax

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pp. 48, 50-51.

<sup>622</sup>Steiss, letter to staff of Commission on Local Government, Jan. 24, 1986.

<sup>623</sup>County Defense to Petersburg Annexation, Vol. III, Tabs 1 (Table 5), 4 (LNTR exhibit), and 5 (Exhs. 1-6); Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; County Defense to Hopewell Annexation, Vol. I, p. 14; County Defense to Hopewell Annexation, Vol. III, Tabs A (p. 36) and B (pp. 57-62); Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986; Cox, communication with staff of Commission on Local Government, May 13, 1986; and Elmore, communication with staff of Commission on Local Government, May 14, 1986.

<sup>624</sup>With respect to each annexation issue, Prince George County has offered several tabular exhibits which seemingly indicate that FY1983-84 statistics serve as bases for each annexation area's prospective yearly fraction of Countywide receipts from the real property, tangible personal property, local option sales, consumer utility, and business license taxes. (See County Defense to Petersburg Annexation, Vol. III, Tab 5, Exhs. 1-5; and County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 57-61.) As it happens, though, the projected ratio scores are actually founded upon data for calendar year 1983 in the case of the local option sales tax; calendar

yield across the locality<sup>625</sup> and the revenue relationship between the annexation area and the County at large in the tangible personal property and consumer utility tax formulas; the ratio of Countywide tax collections to Countywide personal income in the local option sales tax equation,<sup>626</sup> as well as the relationship of annexation area to Countywide revenues in that formula and the business license fees equation; and, finally, the ratio of the schoolaged population of the annexation area to that of the entire County in the State sales

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year 1985 with respect to business license fees; and tax year 1985 in relation to the real property, personal property, and consumer utility revenue dimensions. (Cox, communication with staff of Commission on Local Government, May 13, 1986; Elmore, communication with staff of Commission on Local Government, May 14, 1986; County Defense to Petersburg Annexation, Vol. III, Tab 1, Table 5; Albert, letter to staff of Commission on Local Government, Jan. 15, 1986; County Defense to Hopewell Annexation, Vol. I, p. 14; and Cranwell, letter to staff of Commission on Local Government, Feb. 5, 1986.)

<sup>625</sup>See County Defense to Petersburg Annexation, Vol. III, Tab 5, Exhs. 2, 4; and County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 58, 60. In projecting annexation-area collections with the tangible personal property and consumer utility tax formulas, Prince George County has employed baseline per capita statistics reflecting FY1983-84 revenue totals that clearly differ from the "actual" figures released by the locality in its own audit report. (County Financial Report, FY1983-84, Schedule 1.) If the County had utilized the published data for computational purposes, the baseline per capita amounts would have been \$34.25 and \$10.11 for the personal property and consumer utility dimensions, respectively.

<sup>626</sup>See County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 3; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 59. With respect to the local option sales tax equation, we observe that the County has presented, in relation to the FY1980-81 -- FY1985-86 interval, annexation-area estimates which are partially founded upon a tax revenue/personal income ratio whose yearly numerator values diverge from the locality's audited statistics for the FY1980-81 -- FY1984-85 period and its budgeted figure for FY1985-86. (County Financial Report, FY1980-81 -- FY1984-85, Schedule 1; and County Budget, FY1985-86, p. 136.) Using the latter data series, we have calculated the following ratio scores for the time span under review: .0016 (1981), .0017 (1982), .0017 (1983), .0017 (1984), .0018 (1985), and .0018 (1986). The Commission notes that five of these six fractions (the values pertaining to the FY1980-81 -- 1984-85 interval) differ from the statistics that Prince George County has reported for

tax equation.<sup>627</sup> Thus, 10 of the 22 major factors in Prince George County's formulas rest upon the assumption that statistical values which have been documented once already will, absent supporting evidence, manifest themselves with total uniformity over the full span of the LNTR period. Such assumed constancy adds to our reservations concerning the County's methodology.

A number of factors in the County's forecasting equations, as just indicated, have been assigned prospective scores on the basis of a single statistic from a specified year. Regarding each of two additional factors, we observe that Prince George County proposes the use of a numeric constant for the FY1986-87 -- FY1989-90 interval which matches the fractional value computed for that factor for FY1985-86 and at least one previous year. This situation exists with respect to the Countywide ratio of business license fees to personal income<sup>628</sup> and the number of schoolaged persons in the County rela-

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the corresponding years.

<sup>627</sup>In each of its forecasting exercises, the County has assigned uniform ratios score to the 1984-90 interval on the basis of 1983 data relating to the size of the schoolaged population. (See County Defense to Petersburg Annexation, Vol. III, Tab 1 (Table 5) and Tab 5 (Exh. 6); County Defense to Hopewell Annexation, Vol. I, p. 14; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 62.)

<sup>628</sup>See County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 5; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 61. In using the business license fees equation to generate annexation-area revenue totals, Prince George County has mobilized a tax collection/personal income ratio whose annual numerator values, with respect to the FY1980-81 -- FY1985-86 period, depart from (1) the "actual" data in the locality's audit reports for the completed years of the time span and (2) from the preliminary figure supported in its budget document for the current year. (County Financial Report, FY1980-81 -- FY1984-85, Schedule 1; and County Budget, FY1985-86, pp. 136-37.) When these "official" statistics are applied to the calculation of ratio scores for the interval under consideration, the following set of values emerges: .0006 (1981), .0008 (1982), .0008 (1983), .0009 (1984), .0011 (1985), and .0009 (1986). By referring to the County's submissions it may be seen that half of the fractions in this array (the figures pertaining to 1981, 1982, and 1985) fail to match the ratio scores submitted by Prince George County for the corresponding years.

tive to the Statewide total.<sup>629</sup> Concerning these factors the Commission notes that, from the County's own perspective, it may be unreasonable to assume that the underlying past scores for a particular factor will recur during the years ahead. "Other evidence is needed," as the County has acknowledged, "to back up" such a projection.<sup>630</sup> With respect to each of the factors presently under examination, though, Prince George County has failed to offer any such data of a supplementary nature. We have considerable difficulty, therefore, in endorsing the County's proffered constants as adequate bases for the projection of local tax revenues.

The Commission also notes that the County's methodology calls for the use of "official" estimates in the establishment of revenue projections with respect to the annexation areas sought by Petersburg and Hopewell. In this regard we take cognizance of the fact that

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<sup>629</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 6; and County Defense to Hopewell Annexation, Vol. III, Tab 8, p. 62. Regarding the schoolaged population ratio, we find that the County has reported a uniform annual value of .0049 across the FY1980-81 -- FY1983-84 interval. It might be argued, however, that the relationship of the County's population to the Statewide total actually displayed a measure of variability throughout the five-year period. Partial evidence for this proposition can be found in the County's yearly audit reports, which identify the share of State sales tax revenues allocated to the locality in support of public education. (County Financial Report, FY1980-81 -- FY1983-84, Schedule 1.) The Commission has employed these figures, along with appropriate entries from the "total sales tax" profile in the County's forecasting exhibits, to develop the following set of estimates with respect to the schoolaged population factor during the FY1980-81 -- FY1983-84 period: .0048 (1981), .0050 (1982), .0051 (1983), and .0050 (1984). Through the utilization of the County's financial data, we have also computed ratio scores of .0051 and .0050, respectively, for each of the two succeeding years. (County Financial Report, FY1980-81 -- FY1984-85, Schedule 1; and County Budget, FY1985-86, p. 152.) The Commission notes that this particular sequence of values is not precisely reproduced by the fractions which Prince George County has offered in its Petersburg and Hopewell filings and, moreover, that each County submittal inexplicably differs from the other in the ratio scores cited for the period extending from FY1984-85 through FY1989-90.

<sup>630</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 11; and County Defense to Hopewell Annexation, Vol. III, Tab 8,

Prince George County has relied heavily upon the variables of population, personal income, and inflation as "drivers" of its forecasting equations. A careful assessment of the "future data" (i. e., projected values) underlying these factors reveals, however, that the County's measurement efforts are only partially rooted in "official" estimates from other governmental sources. Then, too, whatever the County's utilization of such authoritative statistics, we are not convinced that the three variables furnish appropriate bases for the calculation of prospective annexation-area revenues during the period in question.

With respect to the population projections used by the County, it should be noted that each of the annual values pertaining to the 1986-90 interval was generated through the application of a 1.0074 multiplier to the population total for the preceding year.<sup>631</sup> This constant growth-rate approach yields statistics which differ from the official projections of the Virginia Department of Planning and Budget (DPB) for every year of the LNTR period except 1990; but the margins of deviation, ranging from -.3% to -.4%, are inconsequential.<sup>632</sup> Although the County's filings offer no explanation or justification for the uniform multiplier technique, its usage has produced results which so closely correspond to the DPB projections that a casual observer might be tempted to characterize them as quasi-official. However, even if the County's population figures were labeled as such, their incorporation into the forecasting exercise would nonetheless be open to challenge. In this connection we observe that the DPB projections for the period extending from 1981 through 1990 were generated during late 1982 on the basis of 1980 statistics

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p. 47.

<sup>631</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, p. 17; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 53.

<sup>632</sup>These variances were computed from data presented in County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 2; County Defense to Hopewell Annexation, Vol. III, Tab B, p. 58; and Virginia

furnished by the U. S. Bureau of the Census. The DPB population figures, while still in effect, are presently undergoing revision as a result of the significant demographic changes which have occurred within the Commonwealth since the last decennial census. The updated projections, which are expected to be available by the summer of 1986, will reflect, for individual localities and the State at large, the most recent birth and death statistics, migration data, institutional population counts, and total population estimates from the Tayloe Murphy Institute of the University of Virginia.<sup>633</sup> In sum, the existing DPB projections are obsolescent and will soon be supplanted by more authoritative statistics. Thus, until the revised population values are released, the current DPB totals for Prince George County, as well as the analogous figures submitted by the County itself, can only be used with considerable reservation.

While acknowledging that Statewide projections from the Virginia Department of Planning and Budget may serve as means for the development of localized forecasts,<sup>634</sup> the County adheres to the view that the estimation of future income levels within its jurisdiction should be founded upon recent historical data pertaining to the area.<sup>635</sup> Governed by this perspective, Prince George County has developed, without explanation, two alternative sets of local income predictions for use in different revenue formulas. Each series of projected values has been generated from a discrete "historical" estimate

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Department of Planning and Budget, "Prince George County: Projected Population by Age, Color, and Sex, July 1, 1986 - July 1, 1990," Nov. 1982.

<sup>633</sup>Donald P. Lillywhite, Research Analyst, Virginia Department of Planning and Budget, communication with staff of Commission on Local Government, Mar. 11, 1986.

<sup>634</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, pp. 13-14; and County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 49-50.

<sup>635</sup>Testimony of Steiss, Proceedings, Oct. 31, 1985, pp. 1262, 1277; and Steiss, communication with staff of Commission on Local Government, Jan. 21, 1986.

of the Countywide personal income total in 1983. Only one of these baseline values,<sup>636</sup> though, is traceable to the official source of such data, the Bureau of Economic Analysis (BEA) of the U. S. Department of Commerce. The other "empirical" statistic<sup>637</sup> appears to have been produced informally by the County itself. In successively employing its 1983 Countywide figures as baseline values, Prince George County has projected local income totals for the 1984-90 interval by utilizing a multiplier of 1.070 with respect to the initial year of the time span and by the application of a growth-rate factor of 1.068 in relation to each subsequent year.<sup>638</sup> The selected factors, we observe, either incorporate or closely reflect the average annual rate of change (i. e., 7%) computed from Countywide income statistics for the 1978-83 period, as reported by the Bureau of Economic Analysis.<sup>639</sup> The Commission notes, too, that the County's magnification factors, while evidently stemming from data issued by the federal government, are essentially the products of a conjectural exercise concerning the future. Moreover, since the annual multiplier associated with the LNTR interval takes the form of a constant, it ignores the significance of the substantial variability which may characterize yearly rates of change in personal income totals at the

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<sup>636</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, Exhs. 1, 3; County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 57, 59; and Tayloe Murphy Institute, University of Virginia, "Bureau of Economic Analysis Estimates: Virginia Personal Income by City and County, 1978-1983" (hereinafter cited as "Bureau of Economic Analysis Estimates, 1978-1983"), May 15, 1985.

<sup>637</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 5; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 61.

<sup>638</sup>County Defense to Petersburg Annexation, Vol. III, Tab 5, Exhs. 1, 3, 5; and County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 57, 59, 61.

<sup>639</sup>The mean value of 7% was derived by the Commission's staff from data contained in "Bureau of Economic Analysis Estimates, 1978-1983."

County level.<sup>640</sup> A further consideration of major importance is the fact that during the late 1970s and early 1980s the Bureau of Economic Analysis (BEA) developed, for Virginia localities, personal income estimates which were often incorrect because of serious errors in the assignment of certain income data to counties and independent cities.<sup>641</sup> Over the past few years, the BEA has undertaken a review of its allocation techniques and has made partial adjustments in its Virginia income reports, but a comprehensive revision of the locality-by-locality figures is not likely to be completed before May 1987.<sup>642</sup> Given the fragile character of the historical data on which the County has relied and, in particular, its employment of a speculative growth-rate constant for annual adjustment purposes, this Commission must conclude that Prince George County's personal income projections do not afford adequate bases for the computation of future revenues from either of the proposed annexation areas.

Finally, as part of its projection methodology, the County has employed a consumer price inflation index whose values are based upon annual rates of change that correspond closely to a series of growth factors computed during May 1984 by Chase Econometrics,<sup>643</sup> the pri-

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<sup>640</sup>In its own exhibits Prince George County has indicated that the level of aggregate personal income within the jurisdiction registered an increase of 15.3% from 1980 to 1981, declined by a margin of 2.8% between 1981 and 1982, and exhibited a growth rate of 7.2% from 1982 to 1983. As these data suggest, the personal income profile of a locality can change significantly over a brief span of time. (See, for example, County Defense to Petersburg Annexation, Vol. III, Tab 5, Exh. 1; and County Defense to Hopewell Annexation, Vol. III, Tab B, p. 57.)

<sup>641</sup>Dr. John L. Knapp, Deputy Director, Tayloe Murphy Institute, University of Virginia, "Statement of the Tayloe Murphy Institute in Regard to Virginia Personal Income Estimates" (presented to the House Appropriations Committee of the Virginia General Assembly on Jan. 31, 1984).

<sup>642</sup>"Bureau of Economic Analysis Estimates, 1978-1983."

<sup>643</sup>See County Defense to Petersburg Annexation, Vol. III, Tab 5, Exhs. 2, 4; County Defense to Hopewell Annexation, Vol. III, Tab B, pp. 58, 60; and Chase Econometrics, U. S. Macroeconomic Long-Term

vate research firm whose forecasting activities generate data for the Virginia Long-Term Economic Model. With respect to this index, it should be noted that its component terms reflect the anticipated impact of inflationary pressures upon the cost of household goods and services throughout the United States.<sup>644</sup> From the vantage point of this Commission, it is not entirely clear that inflation rates which pertain to the national context can be safely applied to the Prince George County environment. We note, furthermore, that the inflation forecasts performed by Chase Econometrics (and, in consequence, the projections emanating from the Virginia Long-Term Economic Model)<sup>645</sup> are frequently updated and may yield highly variable results over the course of 12 to 18 months. For example, in May 1984, a Chase data run showed that, with 1984 taken as a base line, the cost of consumer goods and services would be higher by 5.5% in 1985, 12.3% in 1986, 19.3% in 1987, 26.8% in 1988, 33.7% in 1989,

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Forecasts, Second Quarter 1984, p. A.81. According to Prince George County, its cumulative inflation index was derived from the April 1985 forecast of the Virginia Long-Term Economic Model. (Steiss, letter to staff of Commission on Local Government, Jan. 24, 1986.) In reviewing the April output, we have established that during the spring of last year the State's economic model yielded the following inflation rates with respect to household goods and services: 3.887% in 1985, 4.082% in 1986, 4.425% in 1987, 4.787% in 1988, 4.648% in 1989, and 4.277% in 1990. (Robert J. Griffis, Research Analyst, Virginia Department of Planning and Budget, communication with staff of Commission on Local Government, Feb. 19, 1986.) The County's index, though, is consistent with the expectation that the sequence of annual growth rates would be 5.500%, 6.445%, 6.233%, 6.287%, 5.442%, and 5.497% over the course of the 1985-90 interval. These inflation factors, as we have already observed, are largely congruent with a data series projected in May 1984 by Chase Econometrics.

<sup>644</sup>Griffis, communication with staff of Commission on Local Government, Feb. 19, 1986.

<sup>645</sup>On each "run date" the Virginia Long-Term Economic Model simply generates fiscal-year estimates from the calendar-year projections furnished by Chase Econometrics. The computerized model does not adjust Chase's most recent national forecast to produce a Virginia-based set of predictions. (Jo Alice Evans, Senior Economist, Virginia Department of Taxation, communication with staff of Commission on Local Government, Feb. 20, 1986.)

and 41.2% in 1990.<sup>646</sup> By September 1985, however, Chase Econometrics was indicating that the relevant annual percentages would be --in chronological order--3.7, 8.1, 13.1, 18.7, 23.7, and 29.6--for the 1985 through 1990 period in relation to the baseline year.<sup>647</sup> Across the span of 16 months, then, Chase's modeling efforts had produced sharply divergent forecasts regarding the impact of inflationary pressures. When two data series are characterized by such variance (and each distribution of values derives from a predictive system that is not Virginia-specific), the Commission cannot endorse unequivocally the methodology which generated them.

The County's forecasting approach, in sum, is a source of concern on several major counts. As the Commission has indicated, the prof-fered technique leans heavily upon (1) equations that contain algebraically redundant terms, (2) assumptions of variation and constancy which lack compelling empirical support, and (3) "future data" whose viability must be regarded as problematic. Given these considerations, we cannot accept the proposed estimation strategy as an instrument for the establishment of Prince George County's LNTR entitlements from Petersburg and Hopewell during the post-annexation period.

#### City Adjustment Methodologies

In the cases now under review, the Cities of Petersburg and Hopewell have advanced different techniques for the projection of their respective LNTR obligations beyond the initial year of the compensatory period. As noted in an earlier section of our report,

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<sup>646</sup>On each "run date" the Virginia Long-Term Economic Model simply generates fiscal-year estimates from the calendar-year projections furnished by Chase Econometrics. The computerized model does not adjust Chase's most recent national forecast to produce a Virginia-based set of predictions. (Jo Alice Evans, Senior Economist, Virginia Department of Taxation, communication with staff of Commission on Local Government, Feb. 20, 1986.)

<sup>647</sup>The cited inflation factors are cumulative rates based upon data in Chase Econometrics, U. S. Macroeconomic Long-Term Forecast, Third Quarter 1985, p. A.81.

Petersburg has suggested that its total financial responsibility should be set equal to an amount that is five times the City's base-year LNTR estimate.<sup>648</sup> This recommendation implies, of course, that the levels of annexation-area revenue loss and cost reduction experienced by Prince George County, while subject to fluctuation during a five-year LNTR period, will annually generate an absolute difference that remains uniform throughout the compensatory interval.<sup>649</sup> Departing from Petersburg's "no growth" position, Hopewell has assumed, in regard to its own annexation filing, that the County's loss of net tax revenue can be expected to increase as a function of changes in the cost of living<sup>650</sup> over a reimbursement period lasting five years. Accordingly, Hopewell has outlined an annual compensation plan under which the City proposes to escalate its initial LNTR payment to a second-year figure through (1) the calculation of the variance between the County's gross local tax revenue loss in the base-year and the amount of its net operating expenditure savings during the same interval, (2) the multiplication of the resultant value by a factor denoting the latest annual growth rate in the Consumer Price Index (CPI) of the U. S. Department of Labor, and (3) the reduction of the inflation-adjusted figure (i. e., the baseline statistic) by an amount representing the City's debt service obligation to Prince George County over the course of the second year. At each succeeding installment date, Hopewell intends to pay the County the difference between (1) a revised baseline value, which updates the previous year's figure to reflect the annual percentage change in the CPI since the last LNTR computation, and (2) the City's

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<sup>648</sup>Petersburg Annexation Notice, Vol. I, p. 14-6; Wade, communication with staff of Commission on Local Government, Apr. 23, 1986; and Petersburg Proposed Findings, p. 67.

<sup>649</sup>Testimony of Wade, Proceedings, Oct. 29, 1985, p. 612; and Petersburg Proposed Findings, p. 67.

<sup>650</sup>Testimony of Muller, Proceedings, Nov. 14, 1985, pp. 617, 620; and Muller, communication with staff of Commission on Local Government, Apr. 11, 1986.

debt service responsibility to the County during the twelve-month period covered by the compensatory payment.<sup>651</sup> Thus, Hopewell has opted for an escalation device (i. e., the yearly CPI growth rate) which focuses solely on the operation of inflationary forces in the economy,<sup>652</sup> an emphasis apparently stemming from the City's conviction that the proposed annexation area will experience, at most, only a modest degree of real expansion in net local tax revenues during the next several years.

#### Commission Recommendation

There are inherent difficulties in any attempt to measure a county's prospective loss of net tax revenue during a five-year period of uncertain future. No analytic skills or methodology can do more than offer a reasonable approximation of a county's loss of net tax revenue. In recognition of our limited ability to see the future and, accordingly, the impossibility of determining precisely what a county's net local revenue loss would be over an extended period of years subsequent to an annexation, we should be mindful of the fundamental intent of the legislature in authorizing compensation of this nature. That intent is, it appears to us, to grant the reviewing court latitude to assist a county during a period of transition.

With this principle in mind, the Commission recommends that the court require the annexing city to compensate the county for its prospective loss of net tax revenue by payment of a sum equivalent to the base-year revenue loss, calculated as previously recommended, multiplied by a factor of "5" on or before June 30 following the effective date of annexation or, alternatively, by an annual payment adjusted yearly by changes in the implicit price deflator for state

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<sup>651</sup>Hopewell Exhibit No. 108; Testimony of Muller, Proceedings, Nov. 14, 1985, pp. 617-618, 620; and Muller, communication with staff of Commission on Local Government, Apr. 11, 1986.

<sup>652</sup>Testimony of Muller, Proceedings, Nov. 14, 1985, p. 620.

and local government purchases of goods and services, as that statistic is reported by the Bureau of Economic Analysis of the U. S. Department of Commerce.<sup>653</sup> That statistic (i. e., the implicit price deflator) reflects changes in the cost of goods and services to state and local governments throughout the nation. The cost of such goods and services is not only a major determinant of expenditure levels, it is also a factor which conditions revenue needs and tax rates.<sup>654</sup> While the BEA's implicit price deflator for goods and services purchased by states and localities is derived from national data rather than from information from the Virginia context, we accept its use as an imperfect but reasonable implement for the annual adjustment of Prince George County's compensation after the initial payment.<sup>655</sup>

With respect to the proposed annual adjustment after the initial (i. e., base-year) payment, we recommend that the first-year compensation be multiplied by the ratio of the price deflator for the most recent quarter for which the statistic has been published by the Bureau of Economic Analysis to the most recently revised statistic for

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<sup>653</sup>The implicit price deflator series is periodically revised and extended in the Survey of Current Business, a monthly bulletin published by the Bureau of Economic Analysis of the U. S. Department of Commerce.

<sup>654</sup>Local governments in Virginia have reduced tax rates in recent years where a growth in the tax base and expenditure needs have permitted.

<sup>655</sup>In the past the Commission has proposed the interest yield on five-year U. S. Treasury notes as a payment escalator. (Report on the Financial Settlement Provisions of the Waynesboro Annexation, p. 24.) We have offered the T-note yield rate solely as an instrument by means of which a county might be equitably compensated for the loss of investment opportunities if an annexing city elected to retire its five-year LNTR obligation in annual installments rather than through a single prepayment. It has never been our contention that the proffered adjustment mechanism could be employed to predict, or forecast, growth in the county's loss of net tax revenue following the annexation.

the same quarter of the previous year.<sup>656</sup> The annual payment due the County for the remaining portion of the LNTR period should be similarly adjusted each year. We recommend that the court specify in its order the quarter which will be utilized in the annual calculation of the LNTR payment.

In our judgment, the alternative arrangements recommended herein offer reasonable and equitable means of assisting a county through a period of transition.

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<sup>656</sup>The utilization of fourth quarter price deflators for 1984 (256.5) and 1983 (241.8) would establish a ratio (256.5/241.8) which would yield an adjustment factor of 1.061.

Respectfully submitted,

Harold S. Atkinson  
Harold S. Atkinson, Chairman

Mary Sherwood Holt  
Mary Sherwood Holt, Vice Chairman

Wendell D. Hensley  
Wendell D. Hensley

Wm. S. Hubbard  
William S. Hubbard

Benjamin L. Susman, III  
Benjamin L. Susman, III

## APPENDIX A

STATISTICAL PROFILE OF THE CITY OF PETERSBURG, CITY OF HOPEWELL,  
PRINCE GEORGE COUNTY AND THE AREAS PROPOSED FOR ANNEXATION

	<u>City of Petersburg</u>	<u>Prince George County</u>	<u>Area Proposed for Annexation by City of Petersburg</u>	<u>City of Hopewell</u>	<u>Area Proposed for Annexation by City of Hopewell</u>
Population (1984)	40,800	25,900	13,013	24,200	3,064
Land Area (Square Miles)	23.09	281.33	23.36	11.3	16.6
School Age Population (1983)	7,829	6,075	2,299	5,340	594
Total Taxable Values <sup>1</sup>	\$708,242,224	\$411,732,234	\$73,691,385	\$530,827,249	\$57,018,004
Real Estate Values	\$572,259,500	\$338,932,763	\$54,483,149	\$384,498,900	\$50,271,254
Mobile Home Values	-	\$6,884,425	\$925,454	\$833,607	\$285,660
Tangible Personal Property Values	\$48,976,131	\$34,399,682	\$6,022,662	\$23,929,686	\$3,796,200
Machinery and Tools Values	\$28,375,831	\$810,550	\$212,060	\$89,909,140	\$100,000
Public Service Corporation Values	\$58,630,762	\$30,764,814	\$12,048,060	\$31,655,916	\$2,564,390
Existing Land Use (Acres) <sup>2</sup>					
Residential	3,080	N/A	985	2,332	645
Commercial	398	N/A	86	226	50
Industrial	600	N/A	1,132	992	20
Public and Semi-Public	1,027	N/A	7,929	623	2,850
Road and Railroad Rights-of-Way	2,109	N/A	N/A	1,087	235
Water	176	N/A	N/A	280	1,765
Agricultural, Wooded or Vacant	5,949	N/A	4,818	1,972	5,025

NOTES:

N/A = Not Available

1. Assessed values for the Cities of Petersburg and Hopewell are reported for 1984 and for Prince George County and both areas proposed for annexation for 1985.
2. Land use data for the City of Petersburg and the area it proposes to annex is for 1980 and 1984 respectively. Similar data for the City of Hopewell was tabulated in 1983 and the area sought for annexation in 1985.

SOURCES

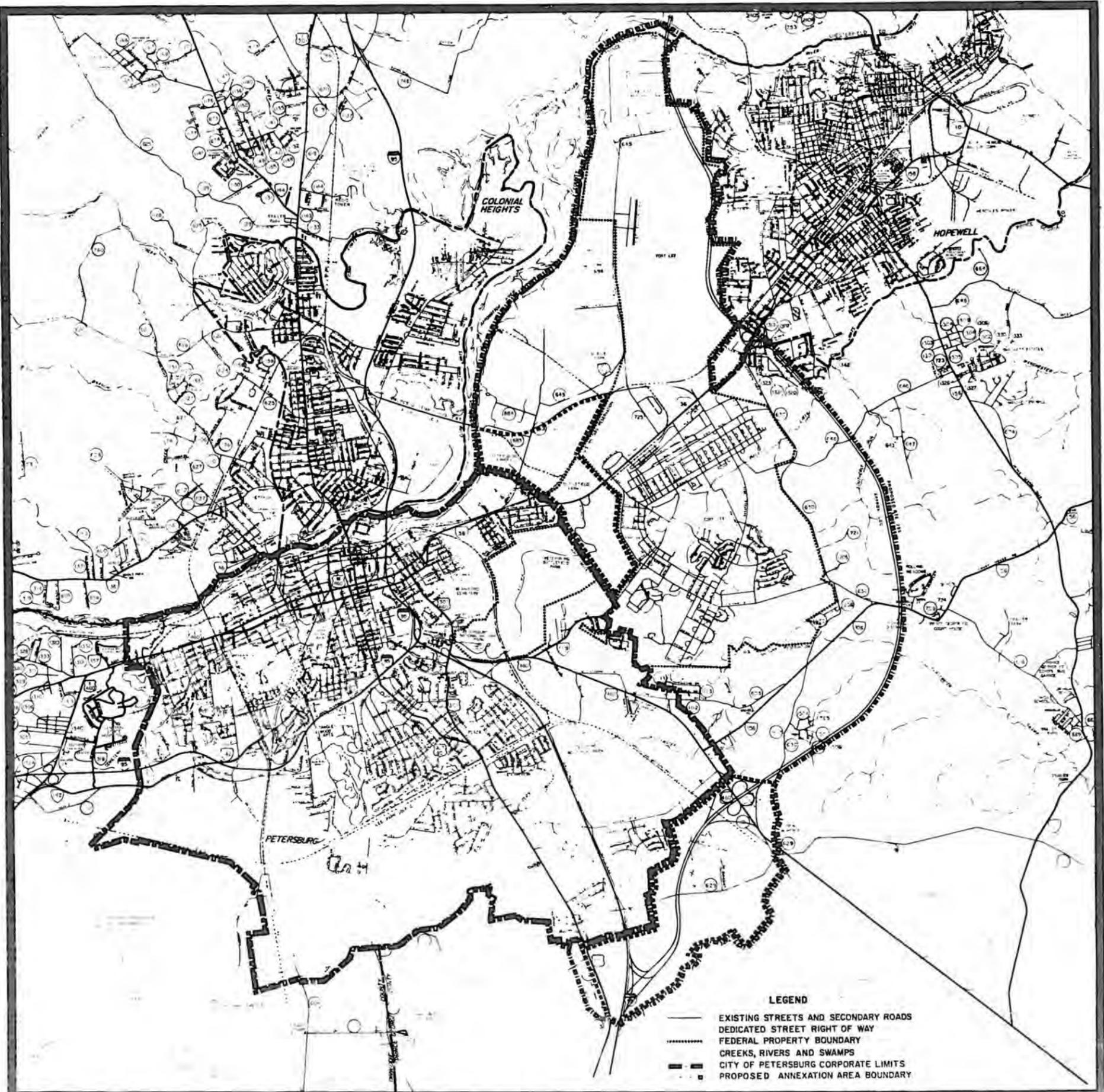
Julia H. Martin and David W. Sheatsley, Estimates of the Population of Virginia Counties and Cities: 1983 and 1984 (Charlottesville: Tayloe Murphy Institute, University of Virginia, 1985.)

City of Petersburg, City of Petersburg Annexation Notice and Supporting Data, Vol. I, Apr. 1985.

City of Hopewell, City of Hopewell Annexation Exhibits: Statistical Data and Descriptions, July 1985.

County of Prince George, Defense to City-Initiated Annexation, Vol. III.

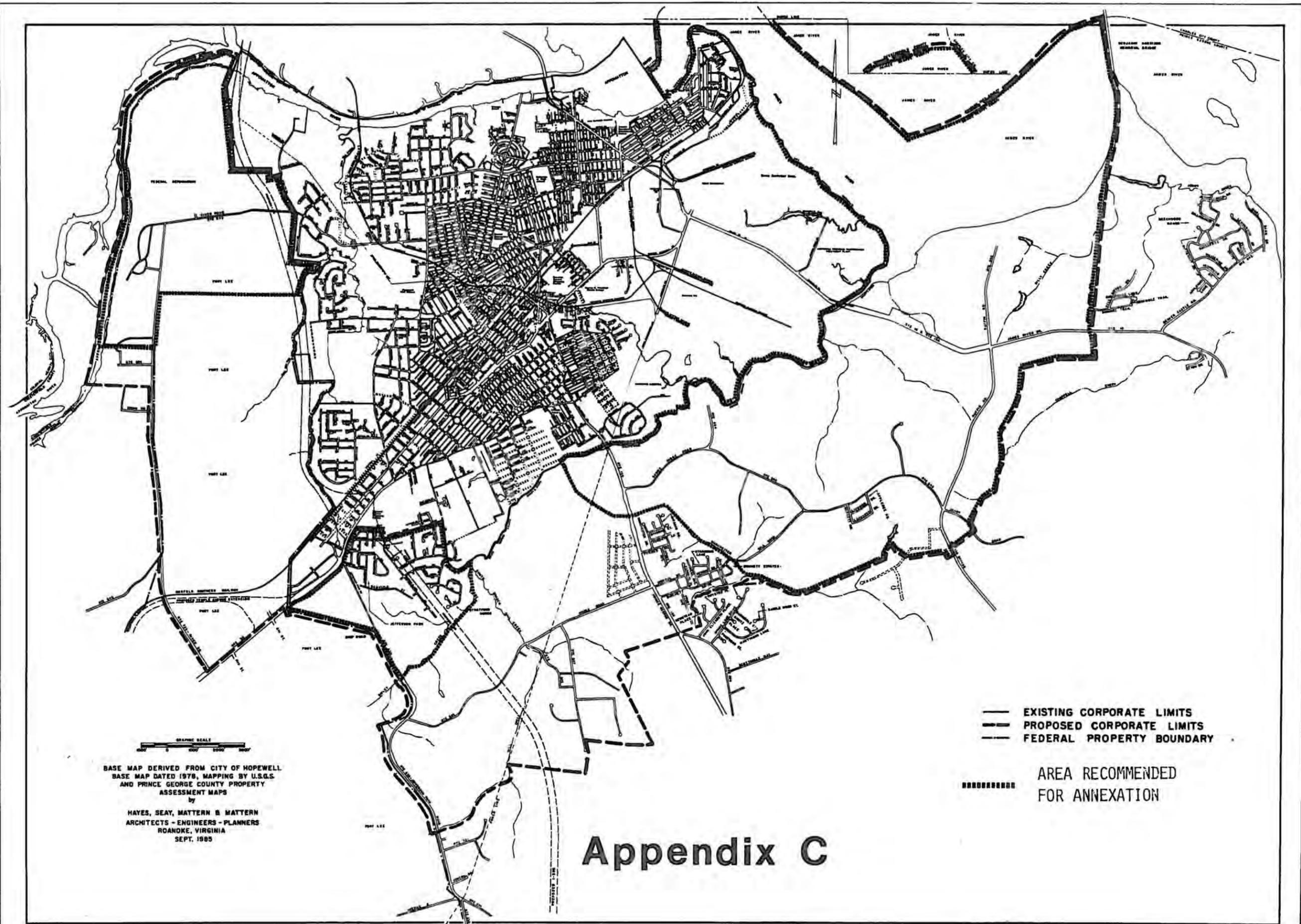
County of Prince George, Defense to Hopewell's Initiated Annexation, Vol. I.



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 AREA RECOMMENDED  
 FOR ANNEXATION

# Appendix B

<b>CITY OF PETERSBURG          VS.          COUNTY OF PRINCE GEORGE</b>	
<small>BASE MAP          FROM          VIRGINIA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION          CITY OF PETERSBURG          COMPILATIONS AND REVISIONS BY WILEY &amp; WILSON</small>	
<small>WILEY &amp; WILSON          ARCHITECTS-ENGINEERS-PLANNERS          A PROFESSIONAL CORPORATION          LYNCHBURG VIRGINIA      APRIL, 1984</small>	
	<small>SCALE IN FEET</small> 



BASE MAP DERIVED FROM CITY OF HOPEWELL  
 BASE MAP DATED 1979, MAPPING BY U.S.G.S  
 AND PRINCE GEORGE COUNTY PROPERTY  
 ASSESSMENT MAPS

by  
 HAYES, SEAY, MATTERN & MATTERN  
 ARCHITECTS - ENGINEERS - PLANNERS  
 ROANOKE, VIRGINIA  
 SEPT. 1985

- EXISTING CORPORATE LIMITS
- - - PROPOSED CORPORATE LIMITS
- - - FEDERAL PROPERTY BOUNDARY

■■■■■■■■■■ AREA RECOMMENDED  
 FOR ANNEXATION

# Appendix C

APPENDIX D

FISCAL CAPACITY AND FISCAL EFFORT  
INDICES

CITY OF PETERSBURG  
CITY OF HOPEWELL  
PRINCE GEORGE COUNTY

Fiscal Capacity  
Ratio Scores Based Upon Local Resources

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Year/Locality	1 True Value Per Capita	2 Total Adj. Gross Income Per Capita	3 Taxable Retail Sales Per Capita	4 Modified Index of Wealth Per Capita
1974				
Prince George County	8,008	2,706	876	5,174
Petersburg City	8,608	3,465	3,314	6,021
1975				
Prince George County	8,347	2,920	909	5,432
Petersburg City	9,034	3,517	3,347	6,258
1976				
Prince George County	10,359	2,906	726	6,414
Petersburg City	9,525	3,902	3,739	6,697
1977				
Prince George County	10,265	2,959	657	6,382
Petersburg City	10,607	4,391	4,133	7,473
1978				
Prince George County	11,759	3,455	855	7,347
Petersburg City	11,386	4,740	4,511	8,040
1979				
Prince George County	12,919	3,829	1,015	8,093
Petersburg City	12,674	5,054	4,531	8,812
1980				
Prince George County	14,579	4,251	1,058	9,095
Petersburg City	15,531	5,739	5,037	10,565
1981				
Prince George County	14,525	4,589	1,099	9,208
Petersburg City	15,035	6,204	5,398	10,539
1982				
Prince George County	15,954	5,141	1,147	10,148
Petersburg City	15,371	6,401	5,599	10,806
1983				
Prince George County	17,272	5,486	1,104	10,941
Petersburg City	16,339	6,615	6,222	11,438

Fiscal Capacity: True Value of Real Estate and Public Service Corporations Per Capita

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Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1974	8,008	8,608	13,711	0.930	0.584	0.628
1975	8,347	9,034	14,618	0.924	0.571	0.618
1976	10,359	9,525	15,561	1.088	0.666	0.612
1977	10,265	10,607	16,863	0.968	0.609	0.629
1978	11,759	11,386	18,848	1.033	0.624	0.604

Fiscal Capacity: True Value of Real Estate and Public Service Corporations Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1979	12,919	12,674	21,644	1.019	0.597	0.586
1980	14,579	15,531	24,316	0.939	0.600	0.639
1981	14,525	15,035	26,386	0.966	0.551	0.570
1982	15,954	15,371	27,495	1.038	0.580	0.559
1983	17,272	16,339	29,018	1.057	0.595	0.563

Fiscal Capacity: Total Adjusted Gross Income Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1974	2,706	3,465	4,112	0.781	0.658	0.843
1975	2,920	3,517	4,304	0.830	0.678	0.817
1976	2,906	3,902	4,776	0.745	0.608	0.817
1977	2,959	4,391	5,175	0.674	0.572	0.848
1978	3,455	4,740	5,698	0.729	0.606	0.832

Fiscal Capacity: Total Adjusted Gross Income Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1979	3,829	5,054	6,179	0.758	0.620	0.818
1980	4,251	5,739	6,860	0.741	0.620	0.837
1981	4,589	6,204	7,467	0.740	0.615	0.831
1982	5,141	6,401	7,917	0.803	0.649	0.809
1983	5,486	6,615	8,469	0.829	0.648	0.781

Fiscal Capacity: Taxable Retail Sales Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1974	876	3,314	2,330	0.264	0.376	1.422
1975	909	3,347	2,370	0.272	0.384	1.412
1976	726	3,739	2,565	0.194	0.283	1.458
1977	657	4,133	2,832	0.159	0.232	1.460
1978	855	4,511	3,137	0.190	0.273	1.438

Fiscal Capacity: Taxable Retail Sales Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1979	1,015	4,531	3,334	0.224	0.304	1.359
1980	1,058	5,037	3,605	0.210	0.294	1.397
1981	1,099	5,398	3,826	0.204	0.287	1.411
1982	1,147	5,599	3,972	0.205	0.289	1.409
1983	1,104	6,222	4,400	0.177	0.251	1.414

Fiscal Capacity: Modified Local Wealth Index Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1974	5,174	6,021	8,733	0.859	0.593	0.690
1975	5,432	6,258	9,267	0.868	0.586	0.675
1976	6,414	6,697	9,948	0.958	0.645	0.673
1977	6,382	7,473	10,785	0.854	0.592	0.693
1978	7,347	8,040	12,017	0.914	0.611	0.669

Fiscal Capacity: Modified Local Wealth Index Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1979	8,093	8,812	13,627	0.918	0.594	0.647
1980	9,095	10,565	15,263	0.861	0.596	0.692
1981	9,208	10,539	16,562	0.874	0.556	0.636
1982	10,148	10,806	17,312	0.939	0.586	0.624
1983	10,941	11,438	18,337	0.957	0.597	0.624

Fiscal Effort  
Ratio Scores Based Upon the Local-Source Revenues of General Government

Year/Locality	Local-Source Revenues Per Capita	Local-Source Revenues Per \$1,000 Of True Value	Local-Source Revenues Per \$1,000 Of Total Adj. Gross Income	Local-Source Revenues Per \$1,000 Of Modified Wealth Index
FY 1980-81				
Prince George County	187.99	12.89	44.23	20.67
Petersburg City	473.54	30.49	82.51	44.82
FY 1981-82				
Prince George County	191.66	13.20	41.76	20.81
Petersburg City	508.52	33.82	81.97	48.25
FY 1982-83				
Prince George County	214.85	13.47	41.79	21.17
Petersburg City	541.17	35.21	84.54	50.08
FY 1983-84				
Prince George County	227.88	13.19	41.54	20.83
Petersburg City	551.98	33.78	83.45	48.26

Fiscal Effort: Local-Source Revenues Per Capita

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1980-81	187.99	473.54	427.84	0.397	0.439	1.107
1981-82	191.66	508.52	470.74	0.377	0.407	1.060
1982-83	214.85	541.17	514.81	0.397	0.417	1.051
1983-84	227.88	551.98	559.57	0.413	0.407	0.986

## Fiscal Effort: Local-Source Revenues Per \$1,000 of the True Value of Real Estate and Public Service Corporations

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1980-81	12.89	30.49	17.59	0.423	0.733	1.733
1981-82	13.20	33.82	17.84	0.390	0.740	1.896
1982-83	13.47	35.21	18.72	0.382	0.719	1.880
1983-84	13.19	33.78	19.28	0.391	0.684	1.752

Fiscal Effort: Local-Source Revenues Per \$1,000 of Total Adjusted Gross Income

Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1980-81	44.23	82.51	62.37	0.536	0.709	1.323
1981-82	41.76	81.97	63.04	0.509	0.662	1.300
1982-83	41.79	84.54	65.02	0.494	0.643	1.300
1983-84	41.54	83.45	66.07	0.498	0.629	1.263

Fiscal Effort: Local-Source Revenues Per \$1,000 of the Modified Local Wealth Index

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Year	Pr. George Score	Petersburg Score	Statewide Score	Pr. George/Petersburg Ratio	Pr. George/Statewide Ratio	Petersburg/Statewide Ratio
1980-81	20.67	44.82	28.03	0.461	0.737	1.599
1981-82	20.81	48.25	28.42	0.431	0.732	1.698
1982-83	21.17	50.08	29.74	0.423	0.712	1.684
1983-84	20.83	48.26	30.52	0.432	0.683	1.581

Property Tax Data: 1974-83  
Assessed Values, Levies, and Levies Per \$1,000 of Assessed Values

Tax Year/Locality	Total Assessed Property Values Per Capita	Total Property Tax Levies Per Capita	Property Tax Levies Per \$1,000 of Assessed Property Values
1974			
Prince George County	2,172.10	61.35	28.25
Petersburg City	7,154.76	147.01	20.55
1975			
Prince George County	2,253.25	63.77	28.30
Petersburg City	8,825.31	166.67	18.89
1976			
Prince George County	2,697.04	69.50	25.77
Petersburg City	9,260.99	176.65	19.08
1977			
Prince George County	7,135.38	84.58	11.85
Petersburg City	10,102.05	191.83	18.99
1978			
Prince George County	7,594.19	92.44	12.17
Petersburg City	11,652.58	208.77	17.92
1979			
Prince George County	8,189.26	100.08	12.22
Petersburg City	13,318.96	241.20	18.11
1980			
Prince George County	11,194.51	98.70	8.82
Petersburg City	14,439.53	263.23	18.23
1981			
Prince George County	11,324.52	99.33	8.77
Petersburg City	15,241.09	279.62	18.35
1982			
Prince George County	13,941.96	118.63	8.51
Petersburg City	16,882.78	308.78	18.29
1983			
Prince George County	14,370.29	122.92	8.55
Petersburg City	16,557.67	286.11	17.28

Fiscal Capacity  
Ratio Scores Based Upon Local Resources

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Year/Locality	1 True Value Per Capita	2 Total Adj. Gross Income Per Capita	3 Taxable Retail Sales Per Capita	4 Modified Index of Wealth Per Capita
1974				
Prince George County	8,008	2,706	876	5,174
Hopewell City	10,136	3,889	2,365	6,860
1975				
Prince George County	8,347	2,920	909	5,432
Hopewell City	10,782	4,153	2,465	7,299
1976				
Prince George County	10,359	2,906	726	6,414
Hopewell City	11,718	4,498	2,827	7,941
1977				
Prince George County	10,265	2,959	657	6,382
Hopewell City	12,752	4,918	3,129	8,656
1978				
Prince George County	11,759	3,455	855	7,347
Hopewell City	14,174	5,286	3,206	9,522
1979				
Prince George County	12,919	3,829	1,015	8,093
Hopewell City	15,030	5,879	3,215	10,188
1980				
Prince George County	14,579	4,251	1,058	9,095
Hopewell City	16,426	6,548	3,354	11,168
1981				
Prince George County	14,525	4,589	1,099	9,208
Hopewell City	16,997	6,802	3,634	11,583
1982				
Prince George County	15,954	5,141	1,147	10,148
Hopewell City	17,215	6,955	3,454	11,735
1983				
Prince George County	17,272	5,486	1,104	10,941
Hopewell City	18,083	7,190	3,768	12,294

Fiscal Capacity: True Value of Real Estate and Public Service Corporations Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1974	8,008	10,136	13,711	0.790	0.584	0.739
1975	8,347	10,782	14,618	0.774	0.571	0.738
1976	10,359	11,718	15,561	0.884	0.666	0.753
1977	10,265	12,752	16,863	0.805	0.609	0.756
1978	11,759	14,174	18,848	0.830	0.624	0.752

Fiscal Capacity: True Value of Real Estate and Public Service Corporations Per Capita

Year:	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1979	12,919	15,030	21,644	0.860	0.597	0.694
1980	14,579	16,426	24,316	0.888	0.600	0.676
1981	14,525	16,997	26,386	0.855	0.551	0.644
1982	15,954	17,215	27,495	0.927	0.580	0.626
1983	17,272	18,083	29,018	0.955	0.595	0.623

Fiscal Capacity: Total Adjusted Gross Income Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1974	2,706	3,889	4,112	0.696	0.658	0.946
1975	2,920	4,153	4,304	0.703	0.678	0.965
1976	2,906	4,498	4,776	0.646	0.608	0.942
1977	2,959	4,918	5,175	0.602	0.572	0.950
1978	3,455	5,286	5,698	0.654	0.606	0.928

Fiscal Capacity: Total Adjusted Gross Income Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1979	3,829	5,879	6,179	0.651	0.620	0.952
1980	4,251	6,548	6,860	0.649	0.620	0.954
1981	4,589	6,802	7,467	0.675	0.615	0.911
1982	5,141	6,955	7,917	0.739	0.649	0.878
1983	5,486	7,190	8,469	0.763	0.648	0.849

Fiscal Capacity: Taxable Retail Sales Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1974	876	2,365	2,330	0.370	0.376	1.015
1975	909	2,465	2,370	0.369	0.384	1.040
1976	726	2,827	2,565	0.257	0.283	1.102
1977	657	3,129	2,832	0.210	0.232	1.105
1978	855	3,206	3,137	0.267	0.273	1.022

Fiscal Capacity: Taxable Retail Sales Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1979	1,015	3,215	3,334	0.316	0.304	0.965
1980	1,058	3,354	3,605	0.315	0.294	0.931
1981	1,099	3,634	3,826	0.303	0.287	0.950
1982	1,147	3,454	3,972	0.332	0.289	0.869
1983	1,104	3,768	4,400	0.293	0.251	0.856

Fiscal Capacity: Modified Local Wealth Index Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1974	5,174	6,860	8,733	0.754	0.593	0.786
1975	5,432	7,299	9,267	0.744	0.586	0.788
1976	6,414	7,941	9,948	0.808	0.645	0.798
1977	6,382	8,656	10,785	0.737	0.592	0.803
1978	7,347	9,522	12,017	0.772	0.611	0.792

Fiscal Capacity: Modified Local Wealth Index Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1979	8,093	10,188	13,627	0.794	0.594	0.748
1980	9,095	11,168	15,263	0.815	0.596	0.732
1981	9,208	11,583	16,562	0.795	0.556	0.699
1982	10,148	11,735	17,312	0.865	0.586	0.678
1983	10,941	12,294	18,337	0.890	0.597	0.671

Fiscal Effort  
Ratio Scores Based Upon the Local-Source Revenues of General Government

Year/Locality	Local-Source Revenues Per Capita	Local-Source Revenues Per \$1,000 Of True Value	Local-Source Revenues Per \$1,000 Of Total Adj. Gross Income	Local-Source Revenues Per \$1,000 Of Modified Wealth Index
FY 1980-81				
Prince George County	187.99	12.89	44.23	20.67
Hopewell City	488.52	29.74	74.61	43.74
FY 1981-82				
Prince George County	191.66	13.20	41.76	20.81
Hopewell City	501.65	29.51	73.75	43.31
FY 1982-83				
Prince George County	214.85	13.47	41.79	21.17
Hopewell City	527.81	30.66	75.89	44.98
FY 1983-84				
Prince George County	227.88	13.19	41.54	20.83
Hopewell City	551.97	30.52	76.77	44.90

Fiscal Effort: Local-Source Revenues Per Capita

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1980-81	187.99	488.52	427.84	0.385	0.439	1.142
1981-82	191.66	501.65	470.74	0.382	0.407	1.066
1982-83	214.85	527.81	514.81	0.407	0.417	1.025
1983-84	227.88	551.97	559.57	0.413	0.407	0.986

## Fiscal Effort: Local-Source Revenues Per \$1,000 of the True Value of Real Estate and Public Service Corporations

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George, Statewide Ratio	Hopewell/Statewide Ratio
1980-81	12.89	29.74	17.59	0.434	0.733	1.690
1981-82	13.20	29.51	17.84	0.447	0.740	1.654
1982-83	13.47	30.66	18.72	0.439	0.719	1.637
1983-84	13.19	30.52	19.28	0.432	0.684	1.583

Fiscal Effort: Local-Source Revenues Per \$1,000 of Total Adjusted Gross Income

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1980-81	44.23	74.61	62.37	0.593	0.709	1.196
1981-82	41.76	73.75	63.04	0.566	0.662	1.170
1982-83	41.79	75.89	65.02	0.551	0.643	1.167
1983-84	41.54	76.77	66.07	0.541	0.629	1.162

Fiscal Effort: Local-Source Revenues Per \$1,000 of the Modified Local Wealth Index

Year	Pr. George Score	Hopewell Score	Statewide Score	Pr. George/Hopewell Ratio	Pr. George/Statewide Ratio	Hopewell/Statewide Ratio
1980-81	20.67	43.74	28.03	0.473	0.737	1.561
1981-82	20.81	43.31	28.42	0.481	0.732	1.524
1982-83	21.17	44.98	29.74	0.471	0.712	1.513
1983-84	20.83	44.90	30.52	0.464	0.683	1.471

Property Tax Data: 1974-83  
 Assessed Values, Levies, and Levies Per \$1,000 of Assessed Values

Tax Year/Locality	Total Assessed Property Values Per Capita	Total Property Tax Levies Per Capita	Property Tax Levies Per \$1,000 of Assessed Property Values
1974			
Prince George County	2,172.10	61.35	28.25
Hopewell City	4,172.30	152.28	36.50
1975			
Prince George County	2,253.25	63.77	28.30
Hopewell City	10,412.05	179.32	17.22
1976			
Prince George County	2,697.04	69.50	25.77
Hopewell City	11,535.92	198.39	17.20
1977			
Prince George County	7,135.38	84.58	11.85
Hopewell City	12,030.78	208.78	17.35
1978			
Prince George County	7,594.19	92.44	12.17
Hopewell City	12,562.30	221.98	17.67
1979			
Prince George County	8,189.26	100.08	12.22
Hopewell City	16,740.79	256.47	15.32
1980			
Prince George County	11,194.51	98.70	8.82
Hopewell City	17,481.28	274.25	15.69
1981			
Prince George County	11,324.52	99.33	8.77
Hopewell City	20,451.05	323.24	15.81
1982			
Prince George County	13,941.96	118.63	8.51
Hopewell City	20,640.98	330.95	16.03
1983			
Prince George County	14,370.29	122.92	8.55
Hopewell City	21,767.08	346.06	15.90

## Notes

1. The concept of true value refers to the full-market worth of locally taxed real estate and public service corporation property within a particular jurisdiction.
2. Derived from the administrative records of the State Department of Taxation, the adjusted gross income (AGI) statistics for a locality, while encompassing most dimensions of income, exclude Social Security benefits and various other transfer payments, contributions made by employers to private pension and health plans, non-cash imputed income, payments in-kind, 60% of long-term capital gains, and the income received by non-resident military personnel stationed in Virginia. It should be noted, too, that jurisdictional AGI figures do not reflect the income of residents who are exempt from the filing of state tax returns.
3. With respect to each county and city, the Virginia Department of Taxation annually estimates the level of taxable sales from tax revenue deposits rather than actual sales figures reported by local retailers.
4. The allocation of state aid to the public schools of a locality is based largely on a formula which takes measure of jurisdictional wealth through an additive index that combines 50% of the total true value of real estate and public service corporations, 40 % of the total personal income, and 10% of the total value of taxable retail sales within the entitlement county or city. The Commission has modified this local wealth index by substituting adjusted gross income for personal income, a necessary revision stemming from the estimation errors which have beset the latter variable in recent years. [See Dr. John L. Knapp, Deputy Director, Tayloe Murphy Institute, University of Virginia, "Statement of the Tayloe Murphy Institute in Regard to Virginia Personal Income Estimates" (presented to the House Appropriations Committee of the Virginia General Assembly on January 31, 1984); Tayloe Murphy Institute, University of Virginia, "Bureau of Economic Analysis Estimates: Virginia Personal Income by City and County, 1978-83," May 15, 1985.]
5. The local-source revenues of general government, as defined by the Virginia Auditor of Public Accounts, exclude payments from federal and state authorities, non-revenue receipts, and inter-fund transfers.

## Sources

Virginia Department of Taxation, Virginia Assessment/Sales Ratio Study, 1974-83, Table 8 (1974-77), Table 5 (1978), and Table 6 (1979-83). This annual publication reports the true value of real estate and public service corporations by county and city.

Taylor Murphy Institute, University of Virginia, Distribution of Virginia Adjusted Gross Income by Income Class, 1974-81, Table 1 (1974-76), Table A1 (1977-81); Distribution of Virginia Adjusted Gross Income by Income Class and Locality, 1982-83, Table A1.

Virginia Department of Taxation, Taxable Sales in Virginia Counties and Cities: Annual Report, 1974-83.

Virginia Auditor of Public Accounts, Comparative Report of Local Government Revenues and Expenditures, Exhibit A.

Taylor Murphy Institute, University of Virginia, Intercensal Estimates and Decennial Census Counts for Virginia Localities, 1790-1980, February 1983, Table 1 (1974-80); Estimates of the Population of Virginia Counties and Cities: 1983 and 1984, August 1985, Table 2 (1981-84).

Virginia Department of Taxation, Annual Report, FY1975-FY1984, Tables 5.4-5.7. This document contains local assessed values and tax levies for all classes of property.