Peachtree City
Land Use Plan
CITY OF
PEACHTREE CITY, GEORGIA

LAND USE PLAN

ADOPTED
MAY, 1985
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concepts, Goals and Objectives</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Development Concepts</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Goals and Objectives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Planning and Implementation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Land Use</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Recreation</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Public Facilities and Services</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Natural Environment</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Climate</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Topography</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Geology</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Soils</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Altavista Series</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Appling Series</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Ashlar Series</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Cecil Series</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Davidson Series</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Gwinnett Series</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Madison Series</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Pacolet Series</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Toccoa Series</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Wehadkee Series</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Hydrology</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Vegetation</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Wildlife</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Historic Resources</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>53</td>
</tr>
<tr>
<td>3</td>
<td>Community Services and Facilities</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Water System</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Wastewater Treatment</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Recreation</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Schools</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Health Facilities</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Emergency Services</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Other Facilities and Services</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>60</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Transportation ........................................... .61</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transportation Planning Process............................ .61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transportation Indicators................................... .63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transportation Facilities.................................. .63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Trip Attractors....................................... .68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic Zones................................................ .68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relationship with Surrounding Area........................ .68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travel Demand/Trip Generation.............................. .71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Background Concepts......................................... .71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Existing and Future Travel Demand........................ .74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trip Purpose................................................ .74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trip Route Assignment...................................... .75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deficiencies in the Transportation System................ .76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Background Concepts......................................... .76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacity Deficiencies....................................... .76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demand Responsiveness Deficiencies......................... .80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Deficiencies....................................... .80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recommendations............................................. .82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Facilities............................................... .83</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 5</th>
<th>Present Land Use............................................. .84</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential................................................... .85</td>
</tr>
<tr>
<td></td>
<td>Community Services............................................ .88</td>
</tr>
<tr>
<td></td>
<td>Recreation..................................................... .88</td>
</tr>
<tr>
<td></td>
<td>Office.......................................................... .88</td>
</tr>
<tr>
<td></td>
<td>Commercial..................................................... .89</td>
</tr>
<tr>
<td></td>
<td>Industrial..................................................... .89</td>
</tr>
<tr>
<td></td>
<td>Water........................................................... .91</td>
</tr>
<tr>
<td></td>
<td>Open Space..................................................... .91</td>
</tr>
<tr>
<td></td>
<td>Vacant.......................................................... .92</td>
</tr>
<tr>
<td></td>
<td>Summary........................................................ .92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 6</th>
<th>Future Land Use.............................................. .93</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Environment and Land Use................................... .93</td>
</tr>
<tr>
<td></td>
<td>Future Land Use Patterns.................................... .99</td>
</tr>
<tr>
<td></td>
<td>Village Centers............................................... .99</td>
</tr>
<tr>
<td></td>
<td>Neighborhood Activity Centers............................. .100</td>
</tr>
<tr>
<td></td>
<td>Residential................................................... .102</td>
</tr>
<tr>
<td></td>
<td>Commercial..................................................... .111</td>
</tr>
<tr>
<td></td>
<td>Industrial..................................................... .112</td>
</tr>
<tr>
<td></td>
<td>Community Services........................................... .113</td>
</tr>
<tr>
<td></td>
<td>Recreation..................................................... .114</td>
</tr>
<tr>
<td></td>
<td>Summary........................................................ .115</td>
</tr>
<tr>
<td></td>
<td>Adjacent Land Use............................................. .115</td>
</tr>
<tr>
<td></td>
<td>Future Land Use Map.......................................... .116</td>
</tr>
<tr>
<td></td>
<td>Summary........................................................ .119</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>Development Issues</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------</td>
</tr>
<tr>
<td></td>
<td>Implementation</td>
</tr>
<tr>
<td></td>
<td>Erosion and Sedimentation Control</td>
</tr>
<tr>
<td></td>
<td>Stormwater Management</td>
</tr>
<tr>
<td></td>
<td>Erosion and Sediment Control</td>
</tr>
<tr>
<td></td>
<td>Other Pollutants</td>
</tr>
<tr>
<td></td>
<td>Septic Tanks</td>
</tr>
<tr>
<td></td>
<td>Relationships with other Jurisdictions</td>
</tr>
<tr>
<td></td>
<td>Annexation</td>
</tr>
</tbody>
</table>

| Chapter 8 | Population and Housing | 129 |

References | 132 |
## LIST OF MAPS

<table>
<thead>
<tr>
<th>Map Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Georgia</td>
<td>2</td>
</tr>
<tr>
<td>2. Fayette County</td>
<td>3</td>
</tr>
<tr>
<td>3. Peachtree City</td>
<td>4</td>
</tr>
<tr>
<td>4. Elevation</td>
<td>15</td>
</tr>
<tr>
<td>5. Soil Phases</td>
<td>17</td>
</tr>
<tr>
<td>6. Residential/Sewer</td>
<td>39</td>
</tr>
<tr>
<td>7. Residential/Septic</td>
<td>40</td>
</tr>
<tr>
<td>8. Small Commercial/Light Industrial Buildings</td>
<td>41</td>
</tr>
<tr>
<td>9. Flood Hazard Areas</td>
<td>45</td>
</tr>
<tr>
<td>10. Dominant Vegetation</td>
<td>50</td>
</tr>
<tr>
<td>11. Community Facilities</td>
<td>56</td>
</tr>
<tr>
<td>12. Recreation Facilities</td>
<td>58</td>
</tr>
<tr>
<td>13. Traffic Count Stations</td>
<td>65</td>
</tr>
<tr>
<td>14. Street Classification System</td>
<td>67</td>
</tr>
<tr>
<td>15. Traffic Zones</td>
<td>70</td>
</tr>
<tr>
<td>16. Internal Residential - Generated Trips (Existing)</td>
<td>77</td>
</tr>
<tr>
<td>17. Internal Residential - Generated Trips (Future)</td>
<td>78</td>
</tr>
<tr>
<td>18. Internal Residential - Generated Trips (Peak Hour)</td>
<td>81</td>
</tr>
<tr>
<td>19. Present Land Use</td>
<td>86</td>
</tr>
<tr>
<td>20. Development Concept</td>
<td>101</td>
</tr>
<tr>
<td>21. Future Land Use</td>
<td>117</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Floodplain Schematic Showing Effects of Encroachment</td>
<td>47</td>
</tr>
<tr>
<td>2.</td>
<td>Transportation Planning Process</td>
<td>62</td>
</tr>
<tr>
<td>3.</td>
<td>Stratification of Person and Vehicular Traffic</td>
<td>72</td>
</tr>
<tr>
<td>4.</td>
<td>Hourly Distribution of Internal Person and Vehicle Trips</td>
<td>73</td>
</tr>
<tr>
<td>5.</td>
<td>Relationship Between Peak Hour Flows and Average Daily Traffic</td>
<td>73</td>
</tr>
<tr>
<td>6.</td>
<td>Relationship of Capacity to Level of Service</td>
<td>79</td>
</tr>
<tr>
<td>7.</td>
<td>Model Homestead</td>
<td>105</td>
</tr>
<tr>
<td>8.</td>
<td>Conventional Site Plan</td>
<td>106</td>
</tr>
<tr>
<td>9.</td>
<td>Cluster Site Plan</td>
<td>107</td>
</tr>
<tr>
<td>10.</td>
<td>Zero Lot Line Plan</td>
<td>108</td>
</tr>
<tr>
<td>11.</td>
<td>Earth Sheltered Residential Design</td>
<td>109</td>
</tr>
<tr>
<td>12.</td>
<td>Earth Sheltered Community Design</td>
<td>110</td>
</tr>
<tr>
<td>Table Title</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Heating Degree Day Requirements</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Phases of Soil Series</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Soil Characteristics by Use</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Water Consumption</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Recreation Facilities</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>School Enrollment</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Mileage</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Traffic Counts</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Present Land Use</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Residential Density</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Industrial Park Occupants</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Future Land Use</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Future Land Use Comparisons</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Population/Commercial Ratio</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>City and County Population</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>Age and Sex</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Population by Race</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Future Housing Development</td>
<td>131</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

The City of Peachtree City is located in the western section of Fayette County, Georgia. The county lies directly south of Atlanta and Fulton County. Peachtree City is approximately 30 miles south of Atlanta; 70 miles northwest of Macon; and 70 miles north-northeast of Columbus. The city's area is 15,494 acres (24.21 square miles) and comprises 12 percent of the area of Fayette County. See Maps 1, 2, and 3.

**Purpose.** The Peachtree City Land Use Plan is intended as a guide for the physical development of the city. The development plan consists of background information; community concepts, goals and objectives; and land use information, including a future land use map depicting areas of preferred development in Peachtree City. The plan is not intended to be an unchanging, final authority. It is intended to be a tool for identifying those areas best and least suited for various types and intensities of development as well as goals and policies to guide land use decisions in Peachtree City.

The Peachtree City Land Use Plan is also intended to be the basis for the 1977 Zoning Ordinance of Peachtree City, Georgia, as Amended; as well as for all other development regulations in the City of Peachtree City, Georgia.

**Scope.** This Land Use Plan applies to the entire incorporated area of the City of Peachtree City, Georgia. This plan is intended to serve the city through 2000, with five-year updates.

**Methodology.** This plan contains information from: previous studies; government reports; new research conducted for the Peachtree City Land Use Plan; city officials; local developers; and other sources.

**Planning Considerations.** The following factors were considered in the planning process:

1. The natural resource base and limits imposed by the environment.
2. Existing land use allocation and projections of future land use needs.
3. Existing and proposed thoroughfare system.
4. Existing and projected housing activity.
5. Existing and projected population size, composition and distribution.
6. Existing and proposed community facilities.
CHAPTER 1

CONCEPTS, GOALS, AND OBJECTIVES

Development Concepts

Peachtree City is a dynamic example of a new idea. It represents a vision of human environment of the highest quality. The city means the opportunity to experience the ultimate community: living in a desirable neighborhood; working in the community and within walking distance of home; travelling with ease to other parts of the Atlanta Region as well as to school and shopping; playing near home or near a passive transit link to home; and realizing optimum educational, cultural, recreational, medical and other social opportunities.

Development concepts are intended to provide the backdrop for all planning considerations in Peachtree City. These concepts are primarily concerned with the natural and human environments; the idea of a planned community; the village center concept; and the basis for economic stability. These concepts are designed to counter the negative tendencies usually associated with indiscriminate uses, "cookie-cutter" subdivisions and inadequate municipal services. The concepts, goals, and objectives contained in this Land Use Plan are a synthesis of ideals and ideas developed as a conduit for controlling rapid urban growth; conserving and enhancing the natural amenities of the area; achieving a higher quality living environment; benefiting the public interest; becoming a model for planning and development; and realizing a new approach to physical design and innovative housing systems.

Protection of the natural environment requires consideration of streams, lakes, drainage patterns, wetlands, slopes and other features of the landscape. The maintenance and enhancement of the city's irreplaceable natural features and resources are of primary concern in order to share, enjoy and pass on to future generations.

Promotion of the idea of Peachtree City as a planned community involves the organization of people and resources in a way such that unique land use relationships serve city residents, not control them. By planning for human needs, the city can provide a healthful, productive, culturally satisfying and aesthetically pleasing environment for all Peachtree City residents, encouraging as much variety as possible in choice of lifestyle.

The design of future development in the city requires the flexible application of the village center concept. These village centers will be located at significant intersections; include a variety of retail, service, educational and recreational facilities; and will each serve a community of approximately 10,000 people. Neighborhood activity centers will dot residential areas, serving local, daily needs of city residents. A path system throughout the city will link people and facilities. A variety of housing opportunities will be provided, ranging from multi-family to secluded rural estates.
Economic development in Peachtree City requires businesses and operations to act in harmony with these concepts. Clean industries; "high tech" firms; research and development; light manufacturing; and wholesaling activities are conducive to the economic climate in the city. Industries and other businesses locating in the Industrial Park will provide easily accessible jobs to city residents and non-residents alike. An efficient community also is mindful of energy considerations. Whether it is cogeneration in a manufacturing plant, a solar home, or a bicycle trip to the grocery, energy conservation is both a means and an end to a stable and vibrant community.

Building on these development concepts is the next step. Goals provide a general statement of purpose; a point toward which effort is directed; and a basis for making plans, considering alternatives and evaluating results. Objectives provide methods of attaining goals; outline specific programs and projects; and provide a means for making decisions concerning the allocation of financial resources.

Goals and Objectives

A. Environment

1. Goal:
   Protect environmentally sensitive areas from development while extending the open space concept throughout future development.

2. Objectives:
   a. Protect all the major streams and minor drainage systems by preserving these areas in permanent open spaces or easements.
   b. Protect the quality of water in the lakes and streams and prevent periodic flooding by developing a series of erosion sedimentation and retention ponds throughout the city to correspond to development needs.
   c. Encourage the protection of the natural "flora" and fauna whenever possible during the construction phase of development by distinguishing limits of construction or by using other techniques that are appropriate, but not unduly restrictive.
   d. Enhance the natural environment by encouraging major tree planting programs and limited use of preserved open spaces.

B. Planning and Implementation

1. Goal:
   Establish a continuous planning process for Peachtree City and promote the full participation of city residents.
2. Objectives:
   a. Create an on-going citizen involvement program to solicit local input.
   b. Initiate a capital improvement program that is prioritized based on the city's land use plan and the phasing of development.
   c. Continue to update and revise city plans and ordinances to conform and accommodate the "state of the art" development concepts.
   d. Establish a strong site plan review process using the skills of a professional city staff: planner, engineer, landscape architect and other technicians.
   e. Streamline the city's development approval and permitting process and provide builders and developers a list of criteria standards to acquire approval.
   f. Initiate a bi-annual census of city residents to obtain demographic information from which to guide future planning decisions such as school expansions, commuter bus routes, tax forecasts, etc.
   g. Promote a close planning relationship with Fayette County.

C. Land Use

1. Goal:
   Provide for the appropriate allocation and compatible arrangement of land uses.

2. Objectives:
   a. Establish a health mix of land use proportions of the city's total land area which will ensure such balances as enough commercial to support residential population and enough industrial land to provide an adequate employment base and allowing for the expansion of existing industrial firms.
   b. Provide a separation between the different land uses, even the different density of housing classification, by the use of natural open spaces, major and minor collector roads, landscape buffers or lakes and streams.
   c. Discourage strip commercial development along the state highways bisecting the city by encouraging the concentration of commercial businesses and providing areas for residential office and open space use.
d. Influence development on the perimeter of the city in accordance with development inside the city.

D. Residential

1. Goal:
   Provide opportunities for an appropriate mix of dwelling types, sizes and prices in order to meet the current and projected needs of city residents of all socio-economic groups in accordance with their financial capabilities, mobility and preferences.

2. Objectives:
   a. Encourage the private and public maintenance and improvement of the unique character and established integrity of existing neighborhoods and communities.
   b. Create a sense of neighborhood by developing separate and identifiable subdivisions surrounded by open space and/or landscape buffers.
   c. Develop residential subdivisions that would discourage traffic by providing limited access onto minor and major collectors.
   d. Provide landscape buffers along arterial, major and minor collector thoroughfares to screen adjacent residential property.
   e. Design residential subdivisions that conform to the natural features of the land; for example, streets that follow the topography and natural areas left in open space.
   f. Continue to evaluate a variety of housing styles and innovative subdivision designs and concepts.
   g. Utilize the "step down" practice in which there is a regression from a higher to a lower density development.
   h. Assure that locational criteria for all forms of residential development include information regarding the potential impacts on schools, water and sewer requirements, drainage and effects on the environment and access.

E. Commercial

1. Goal:
   Develop commercial areas conveniently located in four (4) village centers serving approximately 10,000 residents each and which support land use development that conserves energy.
2. Objectives:
   a. Develop neighborhood activity centers which provide locations for public and private facilities.
   
   b. Provide adequate open space and landscape buffers around commercial areas and promote the landscaping of parking lots and commercial establishments.
   
   c. Discourage strip-type commercial development which generates poor traffic and pedestrian movement.

F. **Industrial**

1. Goal:
   Promote the establishment of a diversified industrial base of clean industries to support a stable economy.

2. Objectives:
   a. Continue to develop a defined Industrial Park separate from the city's residential development and improve the park's amenities with landscaping, an improved airport facility and developing strong industrial performance standards and design criteria.
   
   b. Establish a research and development park to attract high tech industry with a strong amenities package such as communication center along with recreational facilities.
   
   c. Promote the industrial park as an area-wide economic base with communication and transportation linkages to adjacent areas.
   
   d. Promote the Industrial Park as a location for international companies.
   
   e. Provide easy accessibility to the Industrial Park for city residents as well as the labor pool outside the city.

G. **Social**

1. Goal:
   Encourage the development of health, educational and cultural facilities and programs.

2. Objectives:
   a. Expand and otherwise improve the library's materials and services, including serious consideration of a new facility and its location; as well as improving and expanding recreational programs and the performing arts in the city.
b. Promote the availability of a full range of high quality health maintenance and medical treatment services to all members of the community.

c. Promote and establish area-wide hospital facility easily accessible for county as well as city residents.

d. Encourage and help attract health care personnel to the city and develop training programs for para-professional and professional medical personnel.

e. Promote an efficient emergency health care system by establishing out-patient facilities and clinics and locating ambulance/emergency services in accessible areas to the city.

f. Provide a wide range of educational opportunities for all residents of the community from quality daycare and preschool facilities and programs to adequate K-12 facilities, adult education and/or a college.

g. Locate schools and other educational facilities in areas accessible by major or minor collector roads and in areas where a higher concentration of population exists.

h. Encourage the county school system to develop and maintain a quality and varies curriculum which is both adequate and flexible.

H. **Transportation**

1. **Goal:**

   Provide and maintain a comprehensive transportation system which will provide safe, convenient and efficient service to the general public and will promote and encourage the most desirable timing and patterns of land development.

2. **Objectives:**

   a. Develop a road system that will link the city's collector roads with existing and proposed county and state roads in the area.

   b. Reserve adequate rights-of-way for possible future expansion (widening) of arterial and collector roads.

   c. Promote and accommodate the expansion and improvement of State Routes 54 and 74.
d. Initiate and coordinate an ongoing survey of traffic patterns (home to work, home to shop, etc.) of community residents and use the data to prioritize road improvements projects and facilitate potential commuter bus routes.

e. Promote and facilitate the greater use of commuter bus systems to Atlanta and adjacent areas by developing and locating park and ride lots in efficient and accessible areas.

f. Discourage multiple curb cuts along State Routes 54 and 74 and other major collector roads in the city, by encouraging the use of limited access roads to concentrated commercial areas.

g. Continue to expand and maintain a path system throughout the city connecting residential subdivisions to schools, shopping areas, recreational facilities and other activities.

h. Separate the path system from the vehicular road system by locating paths in open space areas, and develop under/over passes across major collector roads and arterials.

1. Recreation

1. Goal:

   Provide a full range of passive and active recreational facilities and services conveniently located for city residents.

2. Objectives:

   a. Provide a wide range of private and public recreational facilities based on present and future needs and demand of community residents, such as a swimming pool, gymnasium, etc.

   b. Develop major recreational complexes to support the villages and provide minor facilities to serve neighborhood areas.

   c. Encourage the development of private recreation in industrial development, multi-family projects and single family subdivisions.

   d. Provide numerous passive recreational opportunities, such as picnic and nature walks, by taking advantage of areas dedicated to open space, such as the erosion and sedimentation ponds and the flood plain areas of the city.
e. Provide the types of recreational facilities for a city the size of Peachtree City based on National Park, Recreation and Open Space Standards established by the National Recreation and Parks Association.

f. Pursue joint use of school property for recreational programs.

J. Public Facilities and Services

1. Goal:
   Develop a community infrastructure of public utilities, facilities and services to address public needs.

2. Objectives:
   a. Provide an adequate system of solid waste collection and disposal.
   b. Promote a safe and adequate public water system by developing lakes and reservoirs and protecting these water supplies and the accompanying distribution system from pollution.
   c. Promote a safe and efficient sewer system and locate treatment plants in isolated areas of the city.
   d. Provide adequate city employment force to meet community needs.
   e. Provide adequate personnel and training for city fire, police and emergency medical services.
   f. Ensure that new development bears a fair share of and responsibility for the costs of new development.
Chapter 2
Natural Environment

The physical environment places real constraints on the way land is used. Soil characteristics, slope of the land, level of the water table, and countless other environmental factors effect where development can safely occur. This section examines Peachtree City's climate; topography; geology; soils; hydrology; vegetation; wildlife; and historical resources.

Climate

Located in the humid subtropic region, Peachtree City has a temperate climate characterized by warm summers, mild winters, and moderate to heavy rainfall. The city has an average annual rainfall of approximately 48 inches. The driest months are September, October and November; while the wettest months are December through March and July. More than half of the annual thunderstorms occur in the summer. The average seasonal snowfall is about 1 1/2 inches. The average relative humidity in mid-afternoon ranges from 50 to 60 percent. Humidity is higher at night, dawn, and in the summer.

Average daily temperatures in July range from a low of 69°F to a high of 88°F, while in January they range from a low of 34°F to a high of 52°F. The normal growing season is about 250 days. Prevailing winds are northwesterly in winter and southwesterly in summer. February has the highest average wind speed, 11 miles per hour.

Several severe storms, including tornadoes, may be expected in the Atlanta area each year, with resulting property damage in the thousands and sometimes millions of dollars. These storms move very rapidly and have intense rainfalls associated with them. Because of their short duration, they do not normally represent a flood threat to extremely large drainage basins, but could result in flash floods on smaller watersheds in Peachtree City. These storms have occurred during every month of the year, but have the highest frequency in spring. Approximately 50 percent of Georgia's tornadoes have occurred in March and April. Every few years in summer or fall, a tropical depression or hurricane remnant moving inland causes extremely heavy rains for a period of up to several days.

Probability of sunshine ranges from 65 percent in summer to 50 percent in winter. Degree days is a measure of amount of heating (or cooling) required to keep a building at 68°F in winter (or 80°F in summer) for an entire month. Degree day calculations are directly related to the average temperature, and are used primarily by people who heat with solar energy. By converting degree days to a figure based on building size and heating or cooling source, one can accurately calculate heating and cooling requirements.
For example, in January the average temperature is about 43°F. The difference between the average temperature and 68°F is 25°F. Twenty-five degrees Fahrenheit times 31 days in the month equals 775 degree days. Using this method, heating and cooling systems can be designed more efficiently. This involves not only careful site design, but also careful community design to take full advantage of Peachtree City’s climate (temperature, prevailing winds, insolation and natural resources – topography and vegetation).

Table 1 shows the heating degree days for Peachtree City, based on a desired temperature of 68°F. Cooling degree days can be calculated using 80°F (or any other desired temperature) as the cooling goal.

Table 1

<table>
<thead>
<tr>
<th>Month</th>
<th>Degree Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>155</td>
</tr>
<tr>
<td>November</td>
<td>480</td>
</tr>
<tr>
<td>December</td>
<td>713</td>
</tr>
<tr>
<td>January</td>
<td>775</td>
</tr>
<tr>
<td>February</td>
<td>728</td>
</tr>
<tr>
<td>March</td>
<td>496</td>
</tr>
<tr>
<td>April</td>
<td>180</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,527</td>
</tr>
</tbody>
</table>


Topography

Peachtree City lies in the mid-land Georgia subsection of the Southern Piedmont physiographic province of the United States. The Southern Piedmont contains several slope districts. Peachtree City lies in the Greenville Slope District. This district encompasses all or parts of Fulton, Clayton, Fayette, Coweta, Henry, Spalding, Pike Lamar, Upson, Meriwether, Heard, Troup, and Harris Counties. The Greenville Slope District is characterized by rolling topography that decreases gradually in elevation from 1,000 feet in the northeast to 600 feet in the southwest. Elevation in Peachtree City ranges from 760 feet to 995 feet above sea level. Ridgetops are mostly smooth and convex; hillsides irregular, convex and fairly steep adjacent to small drainage ways. Most of the city has slopes of 10 percent or less. On these drainage ways, however; slopes range from 10 to 25 percent. Flood plains are nearly level. See Map 4.
MAP 4

ELEVATIONS IN PEACHTREE CITY

20 Foot Intervals

N
Geology

Underlying the Piedmont Province is a complex of igneous and metamorphic rocks. This crystalline bedrock consists mostly of pre cambrian metamorphic rocks: mica schist; sillimanite schist; hornblende gneiss; and porphyritic and undifferentiated granites.

Depth to bedrock is generally greater than five feet. Granite outcrops and areas occur between Peachtree City and Tyrone; in and near Tyrone; between Peachtree City and Fayetteville; near Woolsey; and southeast of Brooks.

Soils

Soil is a product of geologic weathering and biological activity. Soils in Peachtree City are generally red in color and well drained. These soils were formed from igneous and metamorphic rocks and range in texture from sandy loam to sandy clay loam.

Soils in Peachtree City are grouped into ten series. A soil series is a collection of soils which have similar profiles. Except for differences in texture of the surface layer or of the underlying substratum, all the soils in a series have major horizons that are similar in composition, thickness and arrangement in the profile. A soil series is usually named for geographic place or feature near the location where that series was first observed and mapped.

A soil phase indicates a feature such as texture, slope, erosion, stoniness, wetness or other characteristics which may vary between soils in a series. These differences are the bases for dividing a series into a phase. Soil phases in Peachtree City are shown on Map 5 and described below. Table 2 summarizes the slopes and texture characteristics of the ten soil series found in Peachtree City. The symbols associated with a soil phase indicate the features associated with that phase and correspond to the symbols on Map 5.

Altavista Series

The Altavista Series consists of deep, moderately well drained, moderately permeable soils that formed in loamy sediments. These soils are low stream terraces. The seasonal high water table is within 18 to 30 inches of the surface late in winter and early in spring. Slope is predominantly less than 2 percent, but ranges to 3 percent. Altavista soils are geographically associated with Toccoa and Wehadkee soils.
Aka Altavista sandy loam, 0 to 3 percent slopes.

Typically, the surface layer is brown sandy loam about 7 inches thick. The subsoil is predominantly sandy clay loam and extends to a depth of 36 inches; it is yellowish brown in the upper part, yellowish brown mottled with red and brown in the middle, and strong brown mottled with light brownish gray and red in the lower part. The underlying material to a depth of 60 inches or more is mottled yellowish brown and gray sandy loam.

This soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tilth is good. Although the soil is deep, a water table is commonly at a depth of 18 to 30 inches in winter and early spring limiting depth of root penetration.

This soil has high potential for growing row crops, small grains, hay and pasture. Good tilth is easily maintained by returning crop residue to the soil.

This soil has a high potential for growing loblolly pine and yellow-poplar. Wetness is the main limitation to equipment use in managing and harvesting the tree crop. This can be overcome by using equipment in the drier seasons.

This soil has low potential for most urban uses. Wetness and flooding are limitations that could be overcome by drainage and flood control measures.

Appling Series

The Appling series consists of deep, well drained, moderately permeable soils that formed in material weathered from schist, gneiss and granite. These soils are found on ridgetops and hillsides. Slopes range from 2 to 10 percent, but predominantly 2 to 8 percent. Appling soils are geographically associated with Ashlar, Cecil and Pacolet soils.
--- AmB Appling sandy loam, 2 to 6 percent slopes.

Typically, the surface layer is grayish brown sandy loam about 6 inches thick. The subsurface layer is brownish yellow sandy loam and extends to a depth of 10 inches. The subsoil extends to a depth of 45 inches; it is yellowish brown sandy clay mottled with yellowish red, red, strong brown, and red sandy loam.

This soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. This soil has good tilth and can be worked throughout a wide range of moisture conditions. The root zone is deep and easily penetrated by plant roots.

This soil has high potential for growing row crops, small grains, hay and pasture. Good tilth is easily maintained by returning crop residue to the soil. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

The soil has a medium potential for growing loblolly pine, yellow-poplar, and red oak. There are no significant limitations for woodland use and management.

This soil has high potential for most urban and recreational uses. This subsoil perc slowy and is a limitation for septic tank absorption fields, but this can commonly be overcome by good design and careful installation procedures.

--- AmC Appling sandy loam, 6 to 10 percent slopes.

Typically, the surface layer is brown sandy loam about 4 inches thick. The upper few inches of the subsoil is yellowish red sandy clay loam, and the lower part is yellowish red clay that extends to a depth of 43 inches. The underlying material to depths of 60 inches or more is clay loam if crushed.
This soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. The soil has good tilth and can be worked throughout a wide range of moisture conditions. The root zone is deep and easily penetrated by plant roots.

This soil has medium potential for growing row crops and small grains, but high yields can be obtained. Its potential is limited because of the size of the area and because of slope. It is high for hay and pasture. Good tilth is easily maintained by returning crop residue to the soil. Erosion is a severe hazard if cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a medium potential for growing loblolly pines, yellow-poplar, and red oak. There are no significant limitations for woodland use and management.

This soil has medium potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields. This can commonly be overcome by good design and careful installation procedures. The clayey subsoil and slope are limitations for most sanitary facilities. Slope is the primary limitation if this soil is use for community development and most recreational purposes.

**Ashlar Series**

The Ashlar series consists of moderately deep, well drained or excessively drained, moderately rapidly permeable soils that formed in material weathered from granite. These soils are gently sloping to steep. Ashlar soils are geographically associated with Appling and Pacolet Soils.

---

AsC Ashlar sand loam, 2 to 10 percent slopes.

Typically, the surface layer is dark grayish brown sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam and extends to a depth of 21 inches. Below this is highly weathered rock. Hard rock is at a depth of about 32 inches.
This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderately rapid, and the available water capacity is low. This soil has good tilth and can be worked throughout a wide range of moisture conditions. Penetration of roots is limited to the zone above the hard rock.

This soil has medium potential for growing row crops, small grains, and pasture. Its potential is limited because of depth to rock, low available water capacity, and choppy slopes. Good tilth is easily maintained by returning crop residue to the soil. Erosion is a moderate hazard if cultivated crops are grown. Minimum tillage and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a medium potential for growing lobolly pine and northern red oak. There are no significant limitations for woodland use or management.

This soil has low potential for most urban uses. Depth to rock is the main limitation if sanitary facilities are installed, community development is planned, or playgrounds considered.

---

A+E Ashlar sandy loam very rocky, 10 to 25 percent slope.

Typically, the surface layer is dark grayish brown sandy loam about 5 inches thick. The subsoil is yellowish brown sandy loam and extends to a depth of 24 inches. Below this is highly weathered rock that is gravelly sandy loam if crushed. Hard rock is at a depth of about 38 inches. About 1 to 10 percent of each mapped area is rock outcrop.

This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderately rapid, and the available water capacity is low. This soil has good tilth and can be worked throughout a wide range of moisture conditions. Penetration of roots is limited to the zone above the hard rock.
This soil has low potential for growing row crops and small grains. Its potential is limited because of depth of rock, low available water capacity, rockiness and slope. It is medium for pasture.

This soil has a medium potential for growing loblolly pine and northern red oak. Erosion hazard and equipment limitations are management problems. These problems can commonly be overcome by good ground cover, logging during drier seasons, and planting after good land preparation.

This soil has low potential for most urban use. The depth to rock and steep slopes are limitations for most uses.

**Cecil Series**

The Cecil Series consists of deep, well drained, moderately permeable soils that formed in material weathered from granite, gneiss and mica schist. These soils occur on broad ridgetops and strongly sloping hillsides. Cecil soils are geographically associated with Appling, Gwinnett and Madison soils.

---

CeB Cecil sandy loam, 2 to 6 percent slopes.

Typically, the surface layer is brown sandy loam about 6 inches thick. The subsoil is red and extends to a depth of 58 inches; it is sandy clay loam in the upper few inches, clay in the middle, and sandy clay loam below. The underlying material, to a depth of 65 inches or more, is red sandy loam mottled with strong brown and pale brown and is mixed with weathered gneiss and schist.

This soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tillth is good. The root zone is deep and easily penetrated by plant roots.

This soil has high potential for growing row crops, small grains, hay and pasture. Good tillth is easily maintained by returning crop residue to the soil. Erosion is a moderate hazard if cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help runoff and control erosion.
This soil has medium potential for growing loblolly pine and yellow-poplar. There are no significant limitations for woodland use or management.

The soil has high potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields. This can commonly be overcome by good design and careful installation procedures.

---

CeC Cecil sandy loam, 6 to 10 percent slopes.

Typically, the surface layer is yellowish brown sandy loam about 8 inches thick. The upper few inches of the subsoil is yellowish red sandy clay loam, and the lower part is red clay that extends to a depth of 56 inches or more. Below this is soft weathered gneiss and schist.

This soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tillth is good. The root zone is deep and easily penetrated by plant roots.

This soil has medium potential for growing row crops and small grains. Its potential is limited in places because the slopes are choppy and some areas are small. It is high for hay and pasture. Good tillth is easily maintained by returning crop residue to the soil. Erosion is a severe hazard if cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has medium potential for growing loblolly pine, northern red oak, and yellow-poplar. There are no significant limitations for woodland use or management.

The soil has high potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields, but this can commonly be overcome by good design and careful installation procedures. The clayey subsoil is a limitation for most sanitary facilities. Slope is the primary limitation if this soil is used for community development and recreation.
--- CfC2 Cecil sandy clay loam, 6 to 10 percent slopes.

Typically, the surface layer is brown sandy clay loam about 4 inches thick. The subsoil is red and extends to a depth of about 48 inches. It is sandy clay loam in the upper part and clay below. The underlying material to a depth of 65 inches or more is soft weathered gneiss and schist.

The surface layer is a mixture of the original surface soil and the upper part of the subsoil. Rills or galled spots, shallow gullies and an occasional deep gully are common.

The soil is low in natural fertility and organic matter content. It is strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tillth is poor. The soil can be worked best if it is not too wet or too dry.

This soil has low potential for growing row crops or small grains and a medium potential for growing hay and pasture. Its potential is limited because of the small areas and the choppy, somewhat gullied landscape.

This soil has a medium potential for growing loblolly pine and shortleaf pine. Seedling mortality and equipment limitations are management problems on this soil. These problems can commonly be overcome by good ground cover, logging during drier seasons, and planting after good land preparation.

This soil has medium potential for most urban uses. The gullies are limitations, but the landscape can easily be smoothed or modified for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields, but this can commonly be overcome by good design and careful installation procedures. The clayey subsoil is a limitation for most sanitary facilities. Parts of this soil are limited for community development and most kind of recreation due to strong slopes.
Davidson Series

The Davidson series consists of deep, well drained moderately permeable soils that formed in material weathered from diorite, gneiss and hornblended gneiss. These soils are on broad ridgetops and short hillsides. Slope ranges from 2 to 10 percent, but those of 2 to 7 percent are dominant.

Davidson soils are geographically associated with Cecil and Gwinnett Soils.

--- DgB Davidson loam, 2 to 6 percent slopes.

Typically, the surface layer is dusky red loam about 6 inches thick. The subsoil is predominantly clay and extends to a depth of 78 inches or more; it is dusky red in the upper part and dark red below.

This soil is low in natural fertility and organic matter content. It is strongly acid or medium acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tilth is good. The root zone is deep and easily penetrated by plant roots.

This soil has high potential for growing row crops, small grains, hay and pasture. Good tilth is easily maintained by returning crop residue to the soil. Erosion is a moderate hazard is cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a high potential for growing loblolly pine, northern red oak, and yellow-poplar. There are no significant limitations for woodland use or management.

This soil has high potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields. This can commonly be overcome by good design and careful installation procedures.

Gwinnett Series

The Gwinnett series consists of deep, well drained, moderately permeable soil that formed in material weathered from gneiss and schist. These soils are on ridgetops and hillsides. Slope ranges from 2 to 25 percent, but 2 to 18 percent dominates. Gwinnett soils are geographically associated with Cecil, Davidson, Madison and Pacolet Soils.
--- GeB Gwinnett sandy loam, 2 to 6 percent slopes.

Typically, the surface layer is dark reddish brown sandy loam about 5 inches thick. The subsoil is a dark red clay that extends to a depth of about 36 inches. It is underlain by soft weathered gneiss or schist to depths of 60 inches or more.

This soil is low in natural fertility and organic matter content. It is strongly acid to slightly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tilth is good. This soil can be worked throughout a wide range of moisture conditions. The root zone is deep and easily penetrated by plant roots.

This soil has medium potential for growing row crops, small grains, hay and pasture. Its potential is limited because areas are small and erosion is a hazard. Good tilth is easily maintained by returning crop residue to the soil. Erosion is a moderate hazard if cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a medium potential for growing lobolly pine, red oak, and yellow-poplar. There are no significant limitations for woodland use or management.

This soil has medium potential for most urban uses. The clayey subsoil is a limitation for sanitary landfills. Shrink-swell is the main limitation if this soil is used for community development.

--- GwC3 Gwinnett sandy clay, loam 6 to 10 percent slopes severely eroded.

Typically, the surface layer is dark red sandy clay loam about 4 inches thick and composed of mostly subsoil material. The appearance of the landscape is one of numerous shallow gullies and occasional deep gullies. Slopes are irregular and convex. The subsoil is dark red and extends to a depth of 35 inches. The upper part is clay, and the lower part is sandy clay. Below this is soft weathered granite, gneiss or schist to depths of 60 inches or more.
This soil is low in natural fertility and organic matter content. It is strongly acid to slightly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. Tilth is poor. The root zone is deep and easily penetrated by plant roots.

This soil has low potential for growing row crops and small grains. Its potential is limited because areas are small and continuing erosion is a severe hazard. It has medium potential for hay and pasture. Tilth can be improved by returning crop residue to the soil.

This soil has a medium potential for growing loblolly pine, red oak, and yellow-poplar. Erosion hazard, equipment limitations, and seedling mortality are management problems. These problems can be overcome to some extent by a good ground cover, logging during drier seasons, and planting after good land preparation.

This soil has medium potential for most urban uses. Slope is the main limiting factor if this soil is used for sanitary facilities, community development and recreation.

---

GWE2 Gwinnett sandy clay loam, 10 to 25 percent slopes eroded.

Typically, the surface layer is dark reddish brown sandy clay loam about 5 inches thick and is a mixture of the original surface soil and the upper part of the subsoil. Rills or galled spots, shallow gullies, and an occasional deep gully are common. Slopes are irregular and convex. The upper part of the subsoil is dusky red clay, and the lower part is dark red sandy clay that extends to a depth of 34 inches. Below this is soft weathered granite, gneiss, or schist to depths of 60 inches or more.

This is low in natural fertility and organic matter content. It is strongly acid to slightly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. This soil has fair tilth. The root zone is deep and easily penetrated by plant roots.

This soil has low potential for growing row crops and small grains. Its potential is limited because of slope, and the severe erosion hazard. It has medium potential for hay and pasture if management is good.
This soil has medium potential for growing loblolly pine, red oak, and yellow-poplar.

Erosion hazard, equipment limitations, and seedling mortality are management problems. These problems can be overcome to some extent by good management.

This soil has low potential for most urban uses. The moderately steep and steep slopes are the primary limiting features for most urban and recreational uses.

--- Madison Series

The Madison series consists of deep, well drained, moderately permeable soils that formed in material weathered from micaceous schist or mica gneiss. These soils are found on ridgetops and hillsides. Slope ranges from 2 to 25 percent, but is dominantly 2 to 18 percent. Madison soils are geographically associated with Cecil, Gwinnett and Pacolet Soils.

Typically, the surface layer is brown sandy loam about 6 inches thick. The subsoil is red and extends to a depth of 28 inches; the upper few inches is sandy clay loam, and the lower part is clay. Below this is soft weathered gneiss and schist. Rippable bedrock is at depth of about 40 inches.

This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. This soil has good tilth and can be worked throughout a wide range of moisture conditions. The root zone is deep and easily penetrated by plant roots.

This soil has high potential for growing row crops, small grains, hay and pasture. Good tilth is easily maintained by returning crop residue to the soil. Erosion is a moderate hazard if cultivated crops are grown. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a medium potential for growing loblolly pine, red oak, and yellow-poplar. There are no significant limitations for woodland use or management.
This soil has high potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields, but this can commonly be overcome by good design and careful installation procedures. Low strength is a limitation if this soil is used for local roads and streets.

---

MfC2 Madison sandy clay loam, 6 to 10 percent slopes, eroded.

Typically, the surface layer is brown sandy clay loam about 4 inches thick and is a mixture of the original surface soil, and the upper part of the subsoil. Rills or galled spots, shallow gullies, and an occasional deep gully are common. Slopes are irregular and convex. The subsoil is red and extends to a depth of about 40 inches; the upper few inches is sandy clay loam, and the lower part is clay. Below this is soft weathered micaceous schist. Rippeable bedrock is at a depth of about 50 inches.

This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. The soil has poor tillth. The root zone is deep and easily penetrated by plant roots.

This soil has a medium potential for growing row crops, small grains, hay and pasture. Its potential is limited because of the small areas, and the severe erosion hazard. Tillth can be improved by returning crop residue to the soil. Minimum tillage, and the use of cover crops, including grasses and legumes in the cropping system, are practices that help reduce runoff and control erosion.

This soil has a medium potential for growing loblolly pine, red oak, and yellow-poplar. Erosion hazard, equipment limitations, and seedling mortality are management problems. These problems can be overcome to some extent by good management.
This soil has medium potential for most urban uses. The subsoil percs slowly and is a limitation for septic tank absorption fields, but this can be overcome by good design and careful installation procedures. Slope is commonly a limitation for most urban and recreational uses. This limitation can commonly be overcome by careful design and construction or modifying the slope. Low strength is a limitation for most community developments.

---

MfE2 sandy clay loam, 10 to 25 percent slopes, eroded.

Typically, the surface layer is brown sandy clay loam about 5 inches thick. And is as mixture of the original surface soil, and the upper part of the subsoil. Rills or galled spots, shallow gullies, and an occasional deep gully are common. Slopes are irregular and convex. Individual areas are 5 to 20 acres. The subsoil is red and extends to a depth of about 40 inches; the upper few inches is sandy clay loam, and the lower part is clay. Below this is soft weathered micaceous schist. Rippable bedrock is at a depth of about 50 inches.

This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. This soil has fair tilth. The root zone is deep and easily penetrated by plant roots.

This soil has low potential for growing row crops and small grains. Its potential is limited because of the slope, and the severe erosion hazard. It has medium potential for hay and pasture if management is good.

This soil has a medium potential for growing loblolly pine, red oak, and yellow-poplar. Erosion hazard, equipment limitations, and seedling mortality are management problems. These problems can be overcome to some extent by good management.

This soil has low potential for most urban uses. The moderately steep and steep slopes are the primary limiting features for most urban and recreational uses.
Pacolet Series

The Pacolet series consists of deep, well drained, moderately permeable soils that formed in material weathered from granite, gneiss and mica schist. These soils are found on ridgetops and hillsides. Slope ranges from 6 to 25 percent, but those of 10 to 22 predominate. Pacolet soils are geographically associated with Appling, Ashlar, Cecil, and Madison Soils.

---

PaE Pacolet sandy loam, 10 to 25 percent slopes.

Typically, the surface layer is brown sandy loam about 6 inches thick. The subsoil is red and extends to a depth of 36 inches; the upper few inches is clay loam, and the lower part is clay. Below this is soft weathered granite, gneiss, and schist to a depth of 60 inches or more.

This soil is low in natural fertility and organic matter content. It is strongly acid or very strongly acid throughout except for surface layers that have been limed. Permeability is moderate, and the available water capacity is medium. The soil has good tilth. The root zone is deep and easily penetrated by plant roots.

This soil has low potential for growing row crops and small grains. Its potential is limited because of slope. It has medium potential for hay and pasture if management of good.

This soil has a medium potential for growing loblolly pine, red oak, and yellow-poplar. Erosion hazard and equipment limitations are management problems that can be overcome by logging in drier periods and maintaining good ground cover.

This soil has low potential for most uses. The moderately steep and steep slopes are the primary limiting features for most urban and recreational uses.

Toccoa Series

The Toccoa series consists of deep, well drained, moderately rapidly permeable soils that formed in predominantly loamy sediments on flood plains. These nearly level soils are near streams that drain from the upland. The water table is 30 to 60 inches from the surface during late winter and early spring. There is a high frequency of flooding during this period. Slope is dominantly less than 1 percent, but ranges to 2 percent. Toccoa soils are geographically associated with Altavista and Wehadkee Soils.
--- To Toccoa sandy loam, 0 to 2 percent slopes.

This soil is commonly found on the higher lying areas of the flood plain. There is a high probability of flooding during winter and early spring. Typically, the surface layer is strong brown sandy loam about 8 inches thick. This is underlain by stratified strong brown sandy loam and reddish brown loamy sand to a depth of 34 inches. Below this is a buried soil that is dark grayish brown silt loam several inches thick overlying gray fine sandy clay loam to a depth of 60 inches or more.

This soil is slightly acid to strongly acid throughout. Permeability is moderately rapid, and the available water capacity is medium. The water table is seasonally high and is within about 36 inches of the surface during winter and early spring. Tillth is good, and the root zone is easily penetrated by plant roots.

This soil has a high potential for growing row crops, hay and pasture; however, flooding is a concern from late winter until early spring. Good tillth is easily maintained by returning crop residue to the soil. In addition, the use of grasses and legumes in the cropping system helps to maintain the fertility levels, and the organic matter content.

This soil has high potential for growing loblolly pine, yellow-poplar, and sweetgum. There are no significant limitations for woodland use and management.

This soil has a low potential for urban development. Flooding is the main limitation that could be overcome only by major flood control measures.

--- Tis Toccoa soils, sandy loam, 0 to 2 percent slopes.

Toccoa soils consist of deep, well drained, nearly level soils of the flood plain. There is a high probability of frequent brief flooding during winter and early spring. These soils consists of Toccoa soils and similar soils that are closely associated, but the pattern is irregular.
Individual areas of each soil are large enough to map separately, but, because of present and predicted use, they were mapped as one unit. Most mapped areas contain Toccoa soils and the similar soils. Some contain only the Toccoa soils, and others only the similar soils.

About 60 percent of the mapping unit is Toccoa soils. Typically, the surface layer is strong brown sandy loam about 8 inches thick. This is underlain by stratified strong brown sandy loam and reddish brown loamy sand to a depth of 34 inches. Below this is buried soil that is dark grayish brown silty loam several inches thick overlying gray fine sandy clay loam to a depth of 60 inches or more.

Toccoa soils are slightly acid to strongly acid throughout. Permeability is moderately rapid, and the available water capacity is medium. The root zone is deep, but a water table is commonly within about 36 inches of the surface during winter and spring.

About 25 percent of the map unit is soils similar to Toccoa soils. Typically, these soils have a higher clay content in the underlying stratified layers than is common in the Toccoa soils.

The soils that are similar to Toccoa soils are slightly acid to strongly acid throughout. The permeability is moderate, and the available water capacity is high. The root zone is deep, but a water table is commonly within about 36 inches of the surface during winter and spring and limits root penetration.

Included with these soils in mapping are small areas of Altavista and Wehadkee soils.

This map unit has a medium potential for cultivated crops, hay and pasture. Its potential is limited because of frequent flooding.

This map unit has high potential for growing loblolly pine, yellow-poplar and sweetgum. Frequent flooding, during late winter and early spring, is the main limitation in managing and harvesting the tree crop. This can be overcome by using equipment and logging during the drier seasons.
This map unit has a low potential for urban and most recreational development. Flooding is the main limitation that could be overcome only by major flood control measures.

Wehadkee Series

The Wehadkee series consists of deep, poorly drained, moderately permeable soils that formed in thick loamy sediments. These nearly level soils are found in slight depressions on flood plains. They are commonly saturated with water during winter and spring. Slope is less than 1 percent. Wehadkee soils are geographically associated with Toccoa soils.

---WH Wehadkee soils, silty loam, 0 to 1 percent slopes.

These soils consist of deep, nearly level soils in flood plains. Flooding is common for brief periods during winter and spring. These soils consist of Wehadkee soils and similar soils that are closely associated, but the pattern is irregular. Individual areas of each soil are large enough to be mapped separately, but, because of present and predicted use, they were mapped as one unit. Most mapped areas contain Wehadkee soils and the similar soils. Some contain only the Wehadkee soils, and others only the similar soils.

About 65 percent of the map unit is Wehadkee soils. Typically, Wehadkee soils have a predominantly dark grayish brown silt loam surface layer about 7 inches thick. The subsoil extends to a depth of 50 inches. It is dominantly gray silty clay loam mottled with yellowish brown. Beneath this, to a depth of 60 inches or more, is gray sandy loam mottled with brown.

Wehadkee soils are slightly acid or medium acid. Permeability is moderate, and the available water capacity is high. The root zone is deep, but a water table is commonly within 0 to 30 inches of the surface during winter and spring.

About 20 percent of the map unit is soils somewhat similar to Wehadkee soils. Typically, these soils have a higher clay content in the underlying layers than is common in the Wehadkee soils.
The soils that are somewhat similar to Wehadkee soils are slightly acid or medium acid. Permeability is slow, and the available water capacity is high. The root zone is deep, but a water table is commonly within 12 inches of the surface during winter and spring.

Included with these soils in mapping are small areas of Toccoa soils.

This map unit is wooded. It has a high potential for growing loblolly pine, yellow-poplar, sweetgum, and eastern cottonwood. Wetness and flooding are the main limitations to seedling mortality and equipment use in managing and harvesting the tree crop. The equipment limitation can be overcome by using special equipment and logging during the drier seasons.

These soils have very low potential for farming, urban and intensive recreational uses. Wetness and flooding are the main limitations that could be overcome only by major flood control and drainage measures.
<table>
<thead>
<tr>
<th>Phase</th>
<th>Series</th>
<th>Texture</th>
<th>Slope %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AkA</td>
<td>Altavista</td>
<td>sandy loam</td>
<td>0 to 3</td>
</tr>
<tr>
<td>AmB</td>
<td>Appling</td>
<td>sandy loam</td>
<td>2 to 6</td>
</tr>
<tr>
<td>AmC</td>
<td>Appling</td>
<td>sandy loam</td>
<td>6 to 10</td>
</tr>
<tr>
<td>AsC</td>
<td>Ashlar</td>
<td>sandy loam</td>
<td>2 to 10</td>
</tr>
<tr>
<td>AtE</td>
<td>Ashlar</td>
<td>sandy loam</td>
<td>10 to 25</td>
</tr>
<tr>
<td>CeB</td>
<td>Cecil</td>
<td>sandy loam</td>
<td>2 to 6</td>
</tr>
<tr>
<td>CeC</td>
<td>Cecil</td>
<td>sandy loam</td>
<td>6 to 10</td>
</tr>
<tr>
<td>CfC2</td>
<td>Cecil</td>
<td>sandy clay loam</td>
<td>6 to 10</td>
</tr>
<tr>
<td>DgB</td>
<td>Davidson</td>
<td>loam</td>
<td>2 to 6</td>
</tr>
<tr>
<td>GeB</td>
<td>Gwinnett</td>
<td>sandy loam</td>
<td>2 to 6</td>
</tr>
<tr>
<td>GwC3</td>
<td>Gwinnett</td>
<td>sandy clay loam</td>
<td>6 to 10</td>
</tr>
<tr>
<td>GwE2</td>
<td>Gwinnett</td>
<td>sandy clay loam</td>
<td>10 to 25</td>
</tr>
<tr>
<td>MdB</td>
<td>Madison</td>
<td>sandy loam</td>
<td>2 to 6</td>
</tr>
<tr>
<td>MfC2</td>
<td>Madison</td>
<td>sandy clay loam</td>
<td>6 to 10</td>
</tr>
<tr>
<td>MfE2</td>
<td>Madison</td>
<td>sandy clay loam</td>
<td>10 to 25</td>
</tr>
<tr>
<td>PaE</td>
<td>Pacolet</td>
<td>sandy loam</td>
<td>10 to 25</td>
</tr>
<tr>
<td>To</td>
<td>Toccoa</td>
<td>sandy loam</td>
<td>0 to 2</td>
</tr>
<tr>
<td>Ts</td>
<td>Toccoa</td>
<td>sandy loam</td>
<td>0 to 2</td>
</tr>
<tr>
<td>WH</td>
<td>Wehadkee</td>
<td>silt loam</td>
<td>0 to 1</td>
</tr>
</tbody>
</table>

In selecting appropriate areas for residential, commercial, industrial, recreational and other uses, the suitability of the soils must be determined. The U.S. Soil Conservation Service (SCS) has developed a system for rating soils based on physical properties of the soils and potential uses of the land. The more common properties affecting the use of the soils are: texture, shrink-swell behavior, slope, depth to hard rock, flood hazard, water table, percolation rate, as well as many others.

Interpretations or ratings have been made for all 19 soil phases in Peachtree City to determine their suitability for various land uses. While other factors such as existing development, market demands and political realities may come into play, physical limitations of the soil should be a primary tool in planning the future development of Peachtree City.

Ratings were analyzed for the following land uses in Peachtree City:

1. Dwellings with basements
2. Dwellings without basements
3. Septic tank absorption fields
4. Small commercial and light industrial buildings
5. Playgrounds
6. Paths and Trails
7. Local roads and streets
8. Roadfill

Each soil phase was evaluated in terms of these uses and rated according to slight, moderate or severe limitations for each use. This rating system is described as follows.

Slight - soils meeting these standards can be expected to impose only slight limitations on the particular use; difficulties or hazards in construction or maintenance, due to soil conditions, can be readily and economically overcome.

Moderate - soils meeting these standards can be expected to impose moderate limitations on the particular use; difficulties or hazards in construction or maintenance, due to soil conditions, can be overcome, and it may be economical to do so.

Severe - soils meeting these standards can be expected to impose severe limitations on the particular use; difficulties or hazards in construction or maintenance, due to soil conditions, will be difficult and costly to overcome, if at all.

Maps showing the locations of soils with the rating for each use are on display in the office of the City Planner. These maps should be referred to as appropriate in the continuous planning program in Peachtree
City. For the purpose of this Land Use Plan, however; three interpretations are of critical concern. They are:

1. Residential development with public or community sewerage;
2. Residential development using septic systems; and,

Residential development, with public or community sewerage (residential/sewer), is defined as dwellings of three stories of less that are serviced by a public or community sewerage system. Most important of the soil qualities are: shrink-swell behavior, depth to water table, flood hazard, slope, and depth to hard rock.

Residential development, with septic tank filter fields (residential/septic) is defined as dwelling of three stories or less that required septic tank soil-absorption systems for disposal of sewage. Properties important in evaluating soils for this use include: percolation rate, shrink-swell behavior, water table, flood hazard, slope, and depth to hard rock.

Small commercial and light industrial buildings (commercial/industrial) are those used for stores, offices, and small industries, three stories or less in height, and with a bearing requirement value of more than 6,000 pounds. It is assumed that these buildings have public or community sewage disposal facilities. Most important of the soil qualities are: slope, depth to hard rock, depth to water table, flood hazard, presumptive bearing value, shrink-swell behavior, and corrosion potential.

Maps 6, 7, and 8 illustrate areas in Peachtree City with severe limitations for residential/sewer; residential/septic; and small commercial and light industrial buildings. Table 3 reflects the SCS ratings for the 19 soil phases by the 8 uses described above.
<table>
<thead>
<tr>
<th>Severe</th>
<th>Severe</th>
<th>Severe</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight</td>
<td>Slight</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate</td>
<td>Severe</td>
<td>Severe</td>
</tr>
<tr>
<td>Severe</td>
<td>Severe</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Severe</td>
<td>Moderate</td>
<td>Slight</td>
<td>Slight</td>
</tr>
<tr>
<td>Severe</td>
<td>Moderate</td>
<td>Slight</td>
<td>Slight</td>
</tr>
</tbody>
</table>

Note: For specific reasons for these ratings (example: DGP has moderate limitations for use as a

Table 3 (Continued)
Summary

Residential/sewer; residential/septic; and commercial/industrial are of most significance in addressing the concerns of a land use plan. For instance, areas of residential development should be located such that they do not occur where soils are not suitable due to slope, flooding or other hazards. Soil characteristics play a major, though not absolute, role in land use planning. Moderate, and even severe, limitations can usually be overcome and areas developed for certain uses with careful planning and usually added expense. While the soil characteristics map displayed here are fairly accurate, site-specific study should be performed for major development.

Hydrology

Peachtree City lies in the Flint River Basin of the Apalachicola Drainage System. Primary drainage ways are Line Creek, Flat Creek and Camp Creek. Characteristic of streams flowing in a southeast direction in the Greenville Slope district, these Creeks have narrower, deeper valleys with narrower, rounder divides than streams flowing to the southwest. See map 9.

Line Creek, which forms the western city limit, is one of the major tributaries of the upper Flint River. Peachtree City is upstream of the confluence of Line Creek and Flint River, which forms the intersection of Spalding, Pike and Meriwether Counties. Line Creek drains 248 square miles at its mouth. Impoundments on Line Creek include Wynn's Pond, north of State Route (S. R.) 54 and the proposed Lake McIntosh, south of S.R. 54.

Flat Creek bisects the City from north to south. Its confluence with Line Creek is south of S. R. 74 on the line with Coweta County. Impoundments on Flat Creek include Lake Peachtree and Flat Creek Reservoir presently under construction.

Camp Creek skirts the eastern edge of Peachtree City and flows into Whitewater Creek in Fayette County, east of Peachtree City. There are no major impoundments on Camp Creek in Peachtree City.

Water quality is carefully monitored by the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources. There are several water quality monitoring stations located on the Flint River and nearby tributaries. These stations provide routine chemical information on a monthly or quarterly basis. Each year EPD also uses approximately 20 stations statewide to take special water and sediment samples in order to monitor metals, organics, and biological conditions. In recent years, none of these stations have been located in Peachtree City.
A recent draft study of the Flint River Basin, commissioned by EPD and conducted by a private engineering firm, assesses the quantity and availability of water in the basin; identifies existing and potential water resource problems; and recommends criteria for the protection of both water and water users in the basin. Reams of information already exist concerning water quality, but very little usable information exists today on water quantity, availability and usage. Even though the study contains little information particular to Peachtree City, it should, along with the continuing Metropolitan Atlanta Area Water Resources Management Study, provide officials and residents of Peachtree City with means of addressing future water needs in Peachtree City and surrounding areas.

Flood hazard areas are most prevalent along the lower portions of Line, Flat, and Camp Creeks. See map 9.

Flooding is the temporary inundation of normally dry land and is linked to the earth's hydrologic cycle. In a riverine system, flooding occurs when conditions fill a stream channel with a greater volume than it can carry. The excess water rises up and flows over the channel banks onto the adjacent land, the floodplain.

In a typical riverine situation, the volume of water in a stream, its discharge, is primarily determined by the amount of precipitation and the capacity and speed with which it can be absorbed (the soil's infiltration rate). Land cover, slope, soil type, and the intensity and duration of rainfall all affect the rate of water absorption. The water that is not absorbed by the soil, detained on the surface (in puddles, depressions, lakes, etc), or intercepted by vegetation, runs off the land as "overflow". Overland flow or surface runoff is the major constituent of stream flow immediately following a storm.

Overland flow is supplemented by water released through the soil. The release of this latter component of stream flow, called interflow, is delayed by its movement through the soil. Retention and absorption of water on site therefore reduces overland flows, and by delaying the basic principle of storm water management. Interflow and overland flow together are called total runoff.

Runoff progressively seeks lower elevations and becomes organized into drainage areas. The boundaries of these drainage areas define watersheds. All the runoff from a watershed accumulates in its streams. These streams collect the water and serve as an outlet for the water from the watershed.

Since the volume of precipitation that becomes overland flow and the speed at which the flow accumulates in the stream channel are partly determined by the vegetation and soils, it stands to reason that removing the vegetation and paving over the soils will increase the volume of overland flow. Generally, the greater the degree of watershed urbanization, the greater the volume and rate of runoff, and the greater potential for flooding.
FIGURE 1
FLOODPLAIN SCHEMATIC
SHOWING EFFECTS OF CHANNEL ENCROACHMENT

Source: Flood Hazard Workshop Manual, Environmental Protection Division
Georgia Department of Natural Resources, 1982.
It also is important to realize that fill material placed in the flood plain takes away valuable water storage areas. When this storage area is removed, the water elevations will rise, flooding previously dry land (See Figure 1).

Floodplains in their natural or relatively undisturbed state are an important water resource area. They have evolved from natural forces over thousands of years, and unwise development can alter or destroy their valued. Floodplains serve three principle purposes:

1. **Natural Storage and Conveyance** - While floods shape the topography and the physical characteristics of the land, the floodplain helps control the rate of water flow. Except in narrow, steep valleys areas of coastal bluffs, floodplains provide a broad area of temporarily store floodwaters. In their natural state, floodplains slow the rate at which the incoming overland flow reaches the main waterbody.

2. **Water Quality Maintenance** - A vegetated floodplain slows surface water runoff, causing the river to drop most of its sediment in the floodplain. Thus, damaging temperature rises due to muddied waters are reduced. Pathogens and toxic substances entering the waterbody through surface runoff and accompanying sediments are decreased. In addition, the dissolved oxygen level needs of desirable aquatic species are enhanced.

3. **Groundwater Recharge** - The natural floodplain has surface conditions favoring local ponding and flood detention, plus subsurface conditions favoring infiltration and storage. The slowing of runoff across the floodplain allows additional time for the runoff to infiltrate and recharge available groundwater aquifers, when there is unused storage capacity.

The Federal Emergency Management Agency has delineated areas in Peachtree City which are prone to flooding (See Map 9). Development in these areas should be carefully monitored in order to protect the health, safety, and property of Peachtree City residents.

Wetlands, as defined by the President of the United States in an Executive Order, are "lands that are inundated by surface or ground water at frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated soil conditions for growth and reproduction." This order also states that no federal agency can provide any assistance to any landowner or land-user in the drainage or alteration of these wetlands.

Wetlands moderate extremes in water flow and have value as natural flood-control mechanisms. They aid in water purification by trapping filtering and storing sediments and other pollutants and by recycling nutrients. Many serve as groundwater recharge areas. All function as
nursery areas for numerous aquatic animal species and are critical habitat for a wide variety of plant and animal species. Wetlands are mostly found where seasonal flooding occurs, as floodplains and upland depressions.

Unfortunately, these values do not translate into income for most landowners. They benefit the general public and may, in fact, be necessary for the public well-being. For most landowners, wetlands are essentially low-income producing areas that, when drained, can be made to yield a monetary profit.

Wetland areas along the major creeks (See Map 10) and other streams and rivers serve vital ecological functions in the earth's water cycle. Development in or near these areas can have extremely destructive effects to the natural systems. In many areas, unwise development meant the sometimes literal paving over of wetlands. The public interest is not maintained when such development occurs. There is plenty of developable land in the city without threatening these life-supporting ecological systems.

Vegetation

The natural forest cover in Peachtree City consists primarily of Southern and Lobloolly Pines. These pine trees are located on the upper and middle slopes of local topography. Short Leaf Pine grows in a mixture with Lobloolly Pines. The quantity of the mix depends upon the fertility of the soil, and the slope of the topography. Vegetative communities are also dependent upon the local temperature, precipitation, and the availability of water. The Short Leaf Pine is rarely found in pure stands within the planning area. One notable characteristic of the pine stands is the understory of mixed hardwoods including various oaks, hickories, and elms and many species which do not achieve a position in the dominant canopy, such as dogwood.

The natural succession is for pines to colonize sites which are open to direct sunlight, and for the hardwoods to establish themselves at some later time below the pine canopy. Ultimately, the hardwoods grow into the dominant trees and replace the majority of the pines. Depending on age, soil moisture availability, and the quality of the vicinity, the hardwoods sometimes occur in "pure" stands; i.e., stands of one or more hardwood species with pines absent or very sparsely present.

Stands of pine trees established for soil conservation measures are common in the Piedmont region. These stands, in general, are denser than the natural stands of the pine forest; i.e., they have more stems per acre, and the trees are spread more evenly across the stand. The Soil Bank Program of the 1950's established several of these plantations where both Lobloolly and Slash pine were planted.

A different major forest type is encountered in the lower bottomlands of Peachtree City. Stands of bottomland hardwoods occupy the more fertile, moist sites alongside creeks and swamps. These bottomlands are too wet for successful colonization by pines, and the major species found here are Yellow Poplar, Tupelo Gum and Cottonwood. Map 10 illustrates the major species found here are Yellow-Poplar, Tupelo, and Cottonwood. Map 10 illustrates the major vegetation areas in the city.
Wildlife

The dominant animal species in Peachtree City are those which are most able to adapt to human habitation. Suburban, rural estate and farm areas may include extensive areas of woodlands and fields mixed with the human activity areas. These natural areas provide homes for many animal species which are capable of co-existing, or even thriving, with nearby human activities. Many species of rodent (rabbits, chipmunks, squirrels, mice, etc.) opossum, moles, shrews, raccoon, bats, salamanders, frogs, turtles, lizards, snakes, and birds are found throughout the city.

In wilder areas along the creeks and tributaries, and other areas which have not yet been significantly affected by development, other species which have more difficulty in co-existing with human activities may also be found. These species include deer, beaver, muskrat, fox, weasel, mink, skunk and other small mammals, reptiles and amphibians. Legally protected species are not likely to be found within the city, although the Ivory-billed Woodpecker, the Red-cockaded Woodpecker, the Peregrine Falcon, the Bald Eagle, the Florida Panther, the Red Wolf and the Indiana Bat are known to possess the potential to be found in the city. However, these species are very habitat specific, and the critical criteria for their pertinent location in Peachtree City is considered unlikely to be strong enough to create a significant chance that they would be found within the area.

Concern for vanishing plant and animal life has brought about identification of species threatened with extinction. In Georgia, the Endangered Wildlife Act of 1973, and the Wildflower Preservation Act of 1973, require identification and protection of endangered species. The Department of Natural Resources published Georgia's Protected Wildlife and Georgia's Protected Plants in 1977, to establish the official list of protected species. Those that occur or might occur in Peachtree City are described below.

Indiana bat *Myotis sodalis*. This bat hibernates in several caves in Kentucky and Missouri. It disperses in small groups in summer and may be found in north and central Georgia.

Red-Cockaded woodpecker *Picoides borealis*. This gregarious bird looks like the hairy woodpecker except that the top of the head is black, the cheeks conspicuously white, and the sides spotted with black. They nest in cavities of over-mature pine trees afflicted with red-heart disease. The nest is easily recognized by pitch (pine sap) that covers the bark below the nest entrance. The red-cockaded woodpecker has been found in neighboring counties and may be present wherever suitable habitat exists.

Peregrine falcon *Falco peregrinus*. This crow-sized bird of prey with long pointed wings and long narrow tail is distinguished from other falcons by its dark facial markings. It is noted for its speed which may reach 200 miles per hour. A common name is "duck hawk". Peregrines usually mate for life and generally nest overlooking water. Illegal shooting by an
uneducated public and capture for use in falconry have contributed to their decline. The principal cause has been ingestion of chlorinated hydrocarbons from pesticide accumulations in their prey that has interfered with calcium metabolism resulting in thin shelled eggs that break in the nest. The Peregrine is not known to nest in the city, but probably visits during its migrations.

Amphianthus *Amphianthus pusillus*. This diminutive annual aquatic herb is endangered and rare throughout its range. It is found in shallow, flat-bottomed depression pools of granite outcrops that are usually less than a foot in depth and may be completely dry in the summer. It has been seen in the south Atlanta area.

Quillwort *Isocetes melanospora*. A threatened inconspicuous, spore producing plant closely associated with Amphianthus on shallow depression pools of granite outcrops. It has been seen in Butts, DeKalb and Newton Counties, and may occur wherever its habitat exists.

Oglethorpe Oak *Quercus oglethorpensis*. This threatened medium size deciduous tree has gray, scaly bark. Leaves are alternately arranged on the stem, green, mostly elliptic, smooth above and covered with twenty, star-shaped hairs beneath, and are two to five inches long. It is found in broad level areas along streams where flooding rarely occurs and has been seen in adjacent counties.

Stonecrop *Sedum pusillum*. This endangered, small succulent annual herb with bluish-green leaves grown among mosses in partial shade under cedar trees on granite outcrops. It has been seen in Rockdale County.

**Historic Resources**

Peachtree City was incorporated in 1959. It is located in one of the original Militia districts known as Shakerag.

Historic resources are not plentiful in Peachtree City. The city does not have any structures or sites that are listed on the National Register of Historic Places. (At present Fayette County only has two: the Tandy King House and the Fayette County Courthouse.) One structure, Tinsley's Mill located on the golf course in Peachtree City, is the only visible remains from the agricultural community that once thrived in western Fayette County. It was in this area that the settlements of Aberdeen, Clover, Kerdon, and Wynn's Mill were established, prospered and died.

Several family cemeteries have been discovered within the city limits as the land has been cleared for development. However, no potential archeological sites are known at this time.

Very few historic resources exist in Peachtree City and the county. It is for this reason that the few resources that do exist, and those resources that may be uncovered with future development should be preserved through local means in order to capture remanants of an era.
Summary

The environment can impose some severely limiting constraints on development. Flood hazards areas, steep slopes, and other areas provide enough danger to the public health and safety to warrant limiting or prohibiting certain types of development in those areas. Peachtree City possesses enough developable land so that unwise building need not occur in these environmentally sensitive areas.
CHAPTER 3
COMMUNITY SERVICES AND FACILITIES

Community services and facilities play an important role in the quality of life in Peachtree City. Delivery of water, wastewater, recreation and other services are provided by local governments and private companies.

Water System

Water is supplied to Peachtree City by the Fayette County Water System. The county system also serves Fayetteville, Tyrone, Brooks and unincorporated areas in Fayette County. The county’s present supply consists of the 250 acre Lake Peachtree in Peachtree City and water purchased from the City of Atlanta. The county-owned plant at Lake Peachtree has a treatment capacity of .5 million gallons per day (mgd). There are two metered connections with the Atlanta water system at the Fulton-Fayette County line. The county has agreement with the City of Atlanta to supply up to 2.0 million gallons per day at each connection giving the county a total of 4.5 mgd supply capacity. Lake Peachtree has a potential of supplying 2 mgd to Fayette County. There is an additional water intake on Line Creek. Water from this location is treated at the Lake Peachtree facility.

Flat Creek Reservoir, currently under construction, will provide additional storage capacity for Peachtree City and Fayette County. Water level will be at an elevation of 835 feet. The reservoir will cover approximately 230 acres. Withdrawal capacity will be 3.5 mgd during drought conditions, and will probably exceed 5.0 mgd during normal conditions.

It is anticipated that future growth in Peachtree and Fayette County will demand the construction of Lake McIntosh, 650 acre impoundment proposed for Line Creek. Allowing for water allocated to the City of Newnan in Coweta County, Lake McIntosh would provide a potential of 7 mgd to Fayette County. The county is also examining the possibility of an impoundment of Whitewater Creek.

Fayette County also has two deep wells. One well, located in Peachtree City, has a capacity of 90 gallons per minute (gpm). The other, in Tyrone, has a capacity of 40 gpm. These wells are not operated on a continual basis.
Storage facilities in the county consist of a 1.0 and .25 million
gallon elevated tanks and a .22 million gallon ground tank in Peachtree
City; a .5 million gallon elevated tank on S. R. 92 at New Hope Road
northwest of Fayetteville; a 65,000 gallon elevated tank in Tyrone; and a
1.0 million gallon elevated tank in Fayetteville.

Fayette County is tied to Atlanta's system by a 16 inch main on S. R.
92 and a 12 inch main on S. R. 74. Peachtree City is linked to the
county's system by a 10 inch line on S. R. 54; an 8 inch line on S. R. 74;
and a 12 inch line on Peachtree Parkway. Map 11 shows the location of the
raw water intake, treatment plant, and storage tanks in Peachtree City.

Water consumption in Peachtree City consists almost exclusively of
municipal and industrial uses. Table 4 illustrates estimated water
consumption in Peachtree City.

Table 4
Water Consumption in Peachtree City, in MGD

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>1.073</td>
<td>1.859</td>
<td>2.606</td>
</tr>
<tr>
<td>Industrial</td>
<td>2.122</td>
<td>2.618</td>
<td>2.873</td>
</tr>
<tr>
<td>Total</td>
<td>3.195</td>
<td>4.477</td>
<td>5.479</td>
</tr>
</tbody>
</table>

Sources: Flint River Basin Water Availability and Use Report
(Draft), Georgia Environmental Protection Division,
1984; McIntosh Trail APDC, 1984.

The estimates presented in Table 4 are average daily demands. Peak
daily demands can be expected as high as 75 percent greater. The highest
monthly consumption for Fayette County was July, 1982 with 73,060,651
gallons used. The lowest monthly consumption was March, 1981 with
41,867,821 gallons used. These represent a range of 1.38 mgd to 2.4 mgd.
Using these figures and assuming a 75 percent factor, the current peak
single day use for Fayette County could be as high as 4.2 mgd. Future
designs for water supply treatment, storage and distribution should have
the capacity to meet peak demands. As Peachtree City grows and becomes an
even larger percentage of Fayette County's population, these needs will
become more critical for city officials.

Wastewater Treatment

Georgia Utilities, Inc. is a private firm that owns and operates the
central sewerage system in Peachtree City. According to the 1980 Census of
Population and Housing, 1845 year-round housing units in Peachtree City
were being serviced by the central sewerage system. An additional 192
housing units used individual septic systems.
SCHOOLS
1. PEACHTREE ELEMENTARY
2. HUDDLESTON ELEMENTARY
3. OAK GROVE ELEMENTARY
4. BOOTH JUNIOR HIGH
5. MCINTOSH HIGH

OTHER FACILITIES
6. FIRE STATIONS
7. MUNICIPAL BUILDING

WATER SYSTEM
8. RAW WATER INTAKE
9. TREATMENT PLANT
10. UNDERGROUND STORAGE TANK
11. ELEVATED STORAGE TANKS

SEWER SYSTEM
12. EXISTING TREATMENT PLANTS
13. PROPOSED TREATMENT PLANT
The present sewer system in Peachtree City includes two pollution control plants. The first, located near S. R. 74 southeast of Clover Reach subdivision, has a capacity of 0.9 mgd. This plant returns treated wastewater to Flat Creek. The second, located off S. R. 74 near Falcon Field, has a capacity of 1.0 mgd. This plant returns treated wastewater to Line Creek. Map 11 illustrates the existing sewerage facilities in Peachtree City.

Georgia Utilities has developed a plan to serve Peachtree City at its built-out stage. An additional treatment plant will be constructed when development demands exceed present capacities. The plan calls for a new pollution control plant to be constructed on Flat Creek, south of the existing treatment plant. The new plant will have a capacity of 5 to 7.5 mgd.

Recreation

The Peachtree City Recreation Department administers and maintains a variety of programs and facilities. In addition to these public facilities, there are several schools and private facilities located in the city, especially tennis courts and swimming pools in individual subdivisions. These public and private facilities are summarized in Table 5 and located on Map 12.

<table>
<thead>
<tr>
<th>Location</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Big Pine Park</td>
<td>picnicking, playground</td>
</tr>
<tr>
<td>2. Boat Ramp Park</td>
<td>boat ramp, sailing, picnicking</td>
</tr>
<tr>
<td>3. Booth Junior High School</td>
<td>football</td>
</tr>
<tr>
<td>4. Clover Reach Recreation Center</td>
<td>baseball, softball, pool</td>
</tr>
<tr>
<td>5. Oak Grove Elementary School</td>
<td>indoor p. e. area</td>
</tr>
<tr>
<td>6. Flat Creek Country Club</td>
<td>golf, tennis, pool</td>
</tr>
<tr>
<td>7. Glenloch Recreation Center</td>
<td>handball, racquetball, indoor</td>
</tr>
<tr>
<td></td>
<td>recreation, playground, pool,</td>
</tr>
<tr>
<td></td>
<td>soccer, tennis, riding</td>
</tr>
<tr>
<td>8. Glenloch Stables</td>
<td>basketball, playground</td>
</tr>
<tr>
<td>9. Huddleston Elementary School</td>
<td>boat ramp, sailing, picnicking</td>
</tr>
<tr>
<td>10. Huddleston Pond</td>
<td>baseball, softball, soccer</td>
</tr>
<tr>
<td>11. Jim Meade Fields</td>
<td>amphitheater, BMX tract,</td>
</tr>
<tr>
<td>12. McIntosh Amphitheater</td>
<td>picnicking</td>
</tr>
</tbody>
</table>
1. Big Pine Park
2. Boat Ramp Park
3. Booth Junior High School
4. Clover Reach Recreation Center
5. Oak Grove Elementary School
6. Flat Creek Country Club
7. Glenloch Recreation Center
8. Glenloch Stables
9. Huddleston Elementary School
10. Huddleston Pond
11. Jim Meade Fields
12. McIntosh Amphitheater
13. McIntosh High School
14. Peachtree Elementary School
15. Pebble Pocket Park
16. Pebble Stump Park
17. Picnic Park
18. Riley Fields
19. Wynneweade Park

See Chapter 6 for proposed parks and facilities.
Table 5 (Continued)

| 13. McIntosh High School                      | baseball, softball, football, track |
| 14. Peachtree Elementary School              | baseball, softball, playground     |
| 15. Pebblepocket Park                        | handball, racquetball, pool, tennis|
| 16. Pebblestump Park                         | basketball, playground             |
| 17. Picnic Park                              | picnicking, playground             |
| 18. Riley Fields                             | baseball, softball, football       |
| 19. Wynnemeade Park                          | playground                          |

A provision in the Peachtree City Land Subdivision Regulations requires a developer to give the city land for recreation purposes for all residential developments in Peachtree City. This requirement is intended to provide recreational land in decentralized locations throughout the city. In reassessing present and future recreational needs in Peachtree City, the city should assess whether the amount of land donated by the developer is an adequate figure. The city should also look for sources of funds to develop this land set aside for recreational purposes.

School

There are four schools in Peachtree City. These schools are part of the Fayette County Board of Education. Enrollment for the 1983-84 school year is shown in Table 6. Locations of the schools are shown on map 11.

Table 6
School Enrollment, 1983-84

<table>
<thead>
<tr>
<th>School</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peachtree Elementary</td>
<td>814</td>
</tr>
<tr>
<td>Huddleston Elementary</td>
<td>691</td>
</tr>
<tr>
<td>Booth Junior High</td>
<td>753</td>
</tr>
<tr>
<td>McIntosh High</td>
<td>1186</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3444</strong></td>
</tr>
</tbody>
</table>


As the city's and county's population continues to grow, additional school facilities will be needed. Planning for this growth will enable the city and county to provide adequate sites and funding for future educational needs. A current example is the early 1986 opening of Oak Grove Elementary School to serve Braelinn Village Center.
Health Facilities

Presently, private doctor's offices are the only health facilities in Peachtree City. As the city's and county's population grows, a hospital in or near the city will surely be needed. The hospital should be located on an arterial thoroughfare to assure convenient access by city and county residents. The nearest County Health Department is in Fayetteville.

Emergency Services

The city operates police, fire and emergency medical services. The Police Department is located in the Municipal Building on S. R. 54. Fire stations are located on Peachtree Parkway near the intersection of S. R. 54, and at the intersection of S. R. 74 and Paschall Road. As development continues in Peachtree City, additional land needs to be reserved for decentralized fire and emergency medical stations. These sites should be located on arterial or collector thoroughfares, in close proximity to village centers, neighborhood activity centers, the industrial park or other nodes of activity in the city.

Other Facilities and Services

The city's 12,000 volume public library is located in Aberdeen Village Shopping Center on S. R. 54. Solid waste collection is handled by private firms and is taken to the county's sanitary landfill near Fayetteville. There is a cemetery located at the eastern city limit on S. R. 54, as well as ten religious institutions of varying denominations at points around the city.

Summary

Residents of Peachtree City are provided with a wide range of community services and facilities. Demands on the publicly provided services, such as water and recreation, can only increase as the city's population grows. Advance planning will enable the city to provide appropriate land and financial resources to meet future needs for these and other community services and facilities.
Chapter 4

TRANSPORTATION

Scope

The purpose of the transportation section of the Peachtree City Land Use Plan is to provide information about the transportation system of Peachtree City which may be used in making future decisions on land use matters assuring that new development is properly related to the transportation system. This should help to minimize capital outlays necessary to maintain adequate levels of service from the transportation system.

The Transportation Planning Process

The transportation planning process used here consists of four major phases. They are: (1) inventory of existing conditions, (2) integration of significant public and private decisions, (3) estimation of future conditions, and (4) determination of needs and recommendations. Each of the phases consist of a number of elements which, when completed, should yield the information called for in each phase (See Figure 2).

The first phase in this process consists of an inventory of all of the principal activities and factors which affect travel demand and trip generation. The concern here is with getting an accurate indication of the present state of these basic conditions. Only with this phase satisfactorily completed, will there be a suitable basis from which to draw recommendations for the future.

An examination of significant public and private decisions that have affected the development of the city in the past, or probably will do so in the future, is also useful. This is the second phase of the transportation planning process. Plans of local governmental officials as well as major private landowners and developers may be documented and incorporated into the planning process during this phase.

Present conditions are projected into the future during Phase Three of the transportation planning process. Projections may be either quantitative--based upon a numerical relationship with specific present conditions--or qualitative--based on certain reasonable assumptions drawn from data examined.

From the preceding analysis, needs for the transportation system are determined and recommendations for the future are developed. The recommended improvements to the transportation system should provide for identified needs for a specified period in the future.
The Transportation Planning Process

- Phase 1 -
  - Inventory of Existing Conditions

- Phase 2 -
  - Preparation of Significant Public and Private Decisions

- Phase 3 -
  - Estimation of Future Needs

- Phase 4 -
  - Evaluation of Alternative Networks

- Land Use

- Transportation Facilities
  - (Population Density)
  - Intensity of Land Use

- Trip Generation

- Trip Forecast

- Modal Split

- Travel Patterns

The elements of the transportation planning process are executed here in a less detailed manner than might be suggested by the graphic illustration of the process (See Figure 2). Detailed execution of the process is best suited to the use of computer models, such as those employed in the production of a complete transportation plan. Such models are not used here. Moreover, it is desired to incorporate significant plans of public and private organizations in the development or recommendations. The process has been modified to take advantage of information provided by such organizations.

**Transportation Indicators**

A number of factors affect the transportation demand in Peachtree City. These factors include the following:

1. Population
2. Land Use
3. Zoning
4. School Zones
5. Development Trends
6. Relationship with Surrounding Area
7. Transportation Facilities, and
8. Major Trip Attractors

Items one through six are discussed at length in other sections of the Land Use Plan. Items seven and eight, as well as other factors, will be discussed in this section.

**Transportation Facilities**

The most important feature of the Peachtree City transportation system is the streets. The entire street system is a curvilinear design, planned with the automobile in mind. This is unusual, as most cities were founded long before the automobile was in general use, when the grid street system was used almost exclusively. As a result, the older centrally located portions of most cities contain grid street systems. The curvilinear street system of Peachtree City is far more desirable and functional when modern standards of efficiency and function are the yardstick by which the system is judged.

Peachtree City contains a total of 64.73 miles of road, 52.5 miles of which are paved and 12.53 unpaved (See Table 7).
Table 7

Mileage

<table>
<thead>
<tr>
<th></th>
<th>Total Mileage</th>
<th>Total Paved</th>
<th>Total Unpaved</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>12.54</td>
<td>12.54</td>
<td>0.00</td>
</tr>
<tr>
<td>County</td>
<td>6.75</td>
<td>0.66</td>
<td>6.09</td>
</tr>
<tr>
<td>City</td>
<td>45.44</td>
<td>39.00</td>
<td>6.44</td>
</tr>
<tr>
<td>Total</td>
<td>64.73</td>
<td>52.50</td>
<td>12.53</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Transportation, 1983.

The Georgia Department of Transportation maintains nine counting stations within the Peachtree City city limits. In addition, three counting stations that are indicative of traffic patterns in Peachtree City lie outside of the city limits (See Map 13 and Table 8).

Table 8

Traffic Counts

<table>
<thead>
<tr>
<th>Section Number</th>
<th>1974</th>
<th>1980</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>1601</td>
<td>856</td>
<td>1328</td>
<td>2285</td>
</tr>
<tr>
<td>1603</td>
<td>825</td>
<td>1328</td>
<td>2196</td>
</tr>
<tr>
<td>1605</td>
<td>3240</td>
<td>2960</td>
<td>4081</td>
</tr>
<tr>
<td>1613</td>
<td>34</td>
<td>75</td>
<td>369</td>
</tr>
<tr>
<td>1607</td>
<td>4117</td>
<td>5578</td>
<td>5325</td>
</tr>
<tr>
<td>1609</td>
<td>4018</td>
<td>5460</td>
<td>7006</td>
</tr>
<tr>
<td>1611</td>
<td>3599</td>
<td>8275</td>
<td>8424</td>
</tr>
<tr>
<td>1615</td>
<td>702</td>
<td>1123</td>
<td>1226</td>
</tr>
<tr>
<td>298</td>
<td>-</td>
<td>-</td>
<td>3384</td>
</tr>
<tr>
<td>0122</td>
<td>4166</td>
<td>4771</td>
<td>5775</td>
</tr>
<tr>
<td>0116</td>
<td>876</td>
<td>1339</td>
<td>1713</td>
</tr>
<tr>
<td>0604</td>
<td>3342</td>
<td>5584</td>
<td>8550</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Transportation, 1984.

Each street in Peachtree City performs a definite primary transportation function. This function ranges primarily providing an uninterrupted travel way for vehicles and pedestrians to primarily providing access to property. Peachtree City streets have been classified according to their function as follows:
Arterial Roads. These roads are intended to provide high speed travel between or within communities, or to and from collectors and expressways. Access is controlled so that only regionally significant land use may take direct access to these roads.

Collector Roads. Collectors road connect residential streets to the highway system's major and high speed arterials or provide access to non-residential uses and arterials. Collectors form barriers between neighborhoods and are designed for higher speeds and traffic volumes than are residential streets. Because uncongested traffic flow is necessary for their effective functioning, residential uses are prohibited access to collectors unless a variance is granted by the City Council pursuant to the variance procedure contained in the Peachtree City Street Design and Construction Specifications.

--- Major Collector - This road cannot permit on-street parking. It may carry some non-local traffic and extend beyond the City's corporate boundaries.

--- Minor Collector - The average daily traffic is less on minor collector and serves primarily local traffic.

Residential Streets. Residential streets primarily function to provide access to residential uses. All residential streets are intended to accommodate relatively low traffic volumes at slow speeds in order to minimize the basic incompatibility of vehicles, and the pedestrian and children who characterize residential neighborhoods.

Industrial/Commercial. These roads are used specifically for industrial and/or commercial use only.

Private Street. Private street means any strip or parcel or land set aside to provide access for the public within a development which is not to be dedicated or deeded to the City. Frontages and related development standards shall be made as provided in these regulations.

Public Street. Public street shall mean any right-of-way dedicated or deeded to and accepted by the City for purposes of, but not limited to, public travel.

Private Residential Driveway. A vehicular access corridor privately owned and maintained, normally serving one, but not more than two, single family residential lots and constructed to standards adopted by the City of Peachtree City.

Major proposed streets have also been classified (See Map 14). The Street Classification System often serves as a basis for delineating different building setbacks and street construction standards as well as locating major traffic generators.
Peachtree City has a system of paved paths which serves most of the city. The path system serves all school, most residential areas, and many recreational facilities. Bicycles, carts, and pedestrians may use the path system, but motor vehicles are prohibited. The present system is 45 miles in length. This system plays a significant part in transporting people within Peachtree City, relieving some of the load from the vehicular street system. Moreover, the path system provides safe passageways for pedestrian and bicycle traffic, which would otherwise use the street system and perhaps conflict with vehicular traffic.

Major Trip Attractors

Trip attractors are major land use activities to which many transportation system users frequently come. They often have high "turnover" rates—many different vehicles coming and going throughout the day, staying for a relatively short time. Extra attention should be given to these sites because transportation system deficiencies can be most problematic where a high volume of traffic is being adequately served. Traffic volumes related to major trip attractors in Peachtree City are considered in existing and projected future traffic volumes. They consist primarily of major commercial and industrial land uses.

Traffic Zones

For the purpose of describing exchanges of persons between various parts of the study area during daily travel, the area has been divided into sub-areas or "zones" (See Map 15). Zone 1 comprises the lower density residential areas of northeastern Peachtree City. Zone 2 covers the higher-intensity land uses along the western side of the city. Several isolated lower-intensity neighborhoods are also included within this zone. Zone 3 comprises the area along S.R. 54 of Peachtree City, encompassing mainly commercial land uses. Zone 4 covers the moderate density residential areas of southeastern Peachtree City. Zone 5 includes the majority of industrial land, which lies in the southwestern part of the city. Zone 6 contains Braelinn Village and other proposed high-intensity land uses in that vicinity.

Relationship with Surrounding Area

A large number of residents of Peachtree City travel outside of the city for employment. Moreover, many persons employed by local businesses and industries live elsewhere and travel into Peachtree City to work. This makes connections between the street system of Peachtree City and the road system of Fayette County important. Already, the large number of daily commuters to Atlanta has prompted the proposal of improvements to the S.R. 74 corridor between Peachtree City and I-85 in Fulton County. Other logical connections to county roads which might be implemented in the future include the following:
1. Extend Peachtree Parkway south to connect with Bernhard Road and S. R. 74.

2. Connect a proposed future city road in the southern tip of the city with Holly Grove Church Road.

3. Extend proposed Crosstown Highway to connect with Ebenezer Road on the east and with McIntosh Trail in Coweta County at Sharpsburg.

4. Move alignment of Rockaway Road at S. R. 74 north and connect with Holly Grove Church Road to the east.

5. Pave Spear Road to connect with paved Ebenezer Church Road east of the city limits.
Travel Demand/Trip Generation

Background Concepts

Practically all of the trips in Peachtree City—and elsewhere as well—consist of certain socio-economic, physical, and time characteristics. These characteristics are detailed in Figure 3. It is important for these characteristics of travel demand to be understood and taken into account when evaluating alternatives later in the transportation planning process. If this is not done, an alternative may be adopted and implemented only to receive little or not lasting public support due to the fact that the alternative does not adequately address some obscure but, nonetheless, very important aspects of the trips made by the residents of the study area.

The following data are relied upon heavily in the discussion of travel demand in Peachtree City: (1) Average annual daily traffic volumes (AADT) by road segment, (2) Existing and Projected Housing Unit counts derived from 1984 land use inventory, and (3) Housing unit occupancy rates obtained from city officials. Useful conclusions may be drawn from an examination of these key indicators of travel demand.

Generally, the largest percentage of daily trips take place during morning and evening peak travel periods as illustrated by Figure 4. Traffic volumes at other times of the day are lower than at morning and evening peak periods. Therefore, if the transportation system is designed so that it adequately serves peak travel demand in terms of capacity, it will be more than adequate for off-peak demand as well. Figure 4 illustrates this by comparing peak-hour volumes with average daily traffic volumes.

This fact is the basis for the widely practiced transportation engineering principle of designing transportation facilities to handle the 30th highest annual hourly volume, which is derived as a percentage of the AADT that is projected for the design year of the new facility.

As illustrated by Figure 5, providing a small amount of additional capacity for higher volume peaks when designing transportation facilities accomplishes a lot at a relatively small additional expense until the peak of the 30th highest annual hourly volume. Providing for service of higher volumes involves much additional capacity and expense and few additional benefits in service.
FIGURE 3

STRATIFICATION OF PERSON AND VEHICULAR TRAFFIC

SOCIAL-ECONOMIC CHARACTERISTICS

FAMILY INCOME

VEHICLE OWNERSHIP

TRIP PURPOSE

Residential
Work
Shop
Social-Recreational
Miscellaneous

ORIGIN

Land Use

Residential
Industrial
Commercial
Recreational
Other

Travelled Route

Trip Length
Length or Distance

Ground
Airline
Driver
Passenger

Walk

Vehicle

Automobile
Taxi
Trucks

Light
Medium
Heavy
Bus
Mass Transportation

Subway-Elevated
Rail Rapid Transit
Commuter Railroad

ROUTE

Mode

DESTINATION

Land Use

Residential
Industrial
Commercial
Recreational
Other

Geographic Location within the Urban Area

TIME CHARACTERISTICS

Hour
Day of Week
Month of Year
Year

Legend

Person Travel

Person and Vehicular Travel

Vehicular Travel

72
FIGURE 4
HOURLY DISTRIBUTION OF INTERNAL PERSON AND VEHICLE TRIPS


FIGURE 5
RELATIONSHIP BETWEEN PEAK, HOUR FLOWS AND AVERAGE DAILY TRAFFIC
By far most trips in Peachtree City are made by private vehicles using the public road system. Either of two factors may be the reason for this: (1) The automobile is the only widely available mode that exists in the area, or (2) The automobile is the mode that meets the transportation needs of the residents of the region. Experience with mass transportation suggest in many less densely populated areas that the second of the two above statements may more accurately describe transportation in Peachtree City.

**Existing and Future Travel Demand**

A volume-capacity analysis was conducted on selected intersections and street segments within Peachtree City. Present traffic volumes as generated by existing development were computed. In addition, possible future traffic volumes, which could be expected if the city developed as planned, were computed.

The traffic volume computations are based upon specific trip generation and origin-destination factors. Past research indicates that significant differences among trip generation rates occur as housing type---in other words, single-family, multi-family---and density of development increases. Moreover, rates are usually lower for apartments than for single-family units.

Based upon a review of available research, trip generation rates for Peachtree City were established at the following levels:

<table>
<thead>
<tr>
<th>Type of Housing</th>
<th>Trip Generation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>11 trip ends/day/dwelling unit</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>9 trip ends/day/dwelling unit</td>
</tr>
</tbody>
</table>

These rates were applied to the existing number of households in each zone to estimate the number of residentially-generated trips in Peachtree City. Similarly, the above rates were applied to the projected number of households which would reasonably be expected to exist in the city if the city were to develop in the manner illustrated on the future land use map.

**Trip Purpose**

All trips have point of origin and a point of destination (i.e., home, store, office, etc.). An origin-destination survey is typically undertaken to not only determine the actual frequency of trips, but also to determine the frequency, time, route, and origin-destination by trip purpose. Such a survey was not available for this study and undertaking such a survey was
far beyond the scope of this planning study which is essentially a land use plan. Therefore, the trip volumes referred to above were stratified using the following distribution factors based upon research in transportation and census information:

<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>40%</td>
</tr>
<tr>
<td>Shopping</td>
<td>15%</td>
</tr>
<tr>
<td>Social/Recreational</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>15%</td>
</tr>
<tr>
<td>School/Personal</td>
<td>10%</td>
</tr>
</tbody>
</table>

The existing and future trip volumes previously generated for each zone were then applied to these factors to determine the estimated number of trips made by the households in each zone for each purpose. Based upon 1980 Census data for Fayette County, it was assumed that 65 percent of the work trips were out of the county, presumably to destinations in Fulton County and around the airport. Due to the proximity of Shannon Mall, 35 percent of the shopping trips were assumed to also leave Fayette County.

**Trip Route Assignment**

The next step in the traffic analysis process is to assign the various trips to specific transportation roadways. In this phase we are only concerned with collector and arterial streets. Typically, this data will be derived from traffic counts of the streets and destinations surveys. Unfortunately, neither of these sources were available for this analysis.

Due to the lack of the survey and count data, certain assumptions were made by necessity. First, persons making trips were assumed to use the shortest route possible to "route of least resistance". Second, work and shopping trips out of the county were assumed to involve origins-destinations north of Peachtree City.

Using the above stated assumptions, trips were then assigned to the various arterials and collectors. This computation, as expected, shows the highest usage on Highways 54 and 74. Peachtree Parkway is the most heavily used non-state roadway. Data on Map 16 shows the estimated trip volumes of current residents on the existing roadways in Peachtree City using the above stated assumptions/methodologies. If the volumes of trip attractors within the city were incorporated into this analysis, it would appear that a significant number of trips to/from the commercial centers, office parks, and industrial park involve non-residents. A more detailed transportation study would be required to firmly estimate the impact on the traffic volumes by non-residents.
The proposed land use plan and changes to Highway 74 suggest some significant changes in resident trip making patterns. Currently, non-residential development is largely confined to Traffic Zones 3 and 5. With implementation of the proposed land use plan, commercial development will occur in Traffic Zones 2 and 6. This will redirect at least some resident shopping and work trips to these zones away from 3 and 5. Thus, the local travel pattern can be expected to be more internalized even though Highways 54 and 74 will still have the greatest volumes as shown on Map 17. This analysis suggests a need to improve Peachtree Parkway and establish better east-west linkages in the southern half of the city. However, a more in-depth traffic analysis should precede any decision on specific road projects.

Deficiencies in the Transportation System

Background Concepts

When discussing deficiencies in transportation networks, certain aspects of deficiencies must be specified. Three principal kinds of deficiencies are: (1) Capacity deficiencies, (2) Demand-responsiveness deficiencies, and (3) Physical deficiencies. Questions concerning capacity deficiencies must be further refined to address the level of service at which capacity is determined to be deficient. The relationship of capacity to level of service is shown in Figure 6.

Each of the above types of deficiencies must be discussed in terms of either present travel demand or projected travel demand. Discussion of deficiencies under projected travel demand applies more specifically to capacity, since traffic volume is not linked quantitatively to physical and demand-responsiveness factors here.

Capacity Deficiencies

Capacity deficiencies occur where either existing or projected future traffic volumes are greater than the maximum traffic volume that a particular transportation facility (i.e. road segment or intersection) is capable of adequately handling at a given level of service. In order to identify capacity deficiencies in the street system, it is necessary to first determine the capacity of street segments and intersections.

Capacity was calculated for several key intersections along Peachtree Parkway and Highways 54 and 74 using the Highway Capacity Manual methodology as presented in the book entitled, Traffic Engineering: Theory and Practice by Louis J. Pignataro. The capacity of the roadway segments was assumed to have a capacity no greater than the adjoining intersections—a "weakest link" concept.
FIGURE 6
RELATIONSHIP OF CAPACITY TO LEVEL OF SERVICE

Source: Prof. Kendall Moulthrop, Dept. of Civil Engineering, University of Rhode Island.

79
Under ideal conditions, a roadway has capacity of 2,000 vehicles per hour per lane. However, such ideal conditions do not exist in Peachtree City. Intersections, stop signs, traffic signals, hills, and a multitude of other factors reduce the system's operating capacity. Utilizing the methodology described in the above-referenced book, the roadways were calculated to have a level of Service C capacity of 1,250 vehicles per lane per hour. Intersections with turning lanes would have a somewhat higher capacity and, thus, the roadway segment adjoining such intersections would have a higher capacity. While the calculated capacity of the intersections varied by 10 percent, the standard of 1,250 was used for the purposes of this study.

The traffic volumes previously estimated were adjusted to determine peak-hour volume. This step was undertaken by applying a factor of 11 percent to the total estimated traffic volume for a given segment to determine the peak hour flows by residents of Peachtree City. The resulting figures are also shown on Map 18 (future). This peak hour flow was then compared to the above-stated capacity standard.

While this capacity analysis does not clearly define improvement needs, it does strongly suggest a need to upgrade north-south access on the east side of the city and east-west access on the south side.

**Demand-Responsiveness Deficiencies**

The transportation system of Peachtree City relies primarily on private motor vehicles using the public streets and on pedestrian and cart travel for the movement of people. This is one of the most demand-responsive systems of those which have appeared during the past. However, there are a few members of two groups in the city for which transportation service may be inadequate. The two groups are: (1) the elderly and severely physically or mentally handicapped, and (2) certain lower income persons who may not have access to a motor vehicle. Some members of these groups must either spend more of their income than they can afford for maintaining a private motor vehicle, or they must do without the transportation that they need. A few of these Peachtree City citizens are not physically or mentally able to operate a motor vehicle even if they can afford to maintain one.

**Physical Deficiencies**

Seven major types of physical deficiencies would be inventoried in an extensive transportation study. They are as follows: (1) excessive vertical or horizontal curvature, (2) inadequate sight distances, (3) substandard bridges, (4) narrow land or pavement widths, (5) hazardous/inefficient intersections, (6) inadequate construction standards for transportation facilities, and (7) substandard railroad crossing.
These should be studied and identified in detail in the future so that specific remedies for the deficiencies may be implemented.

Recommendations

The transportation analysis is based upon the most recent data available concerning the various factors that influence transportation. The status of those factors has been projected, where appropriate, into the future for an estimation of how those factors would relate to the transportation system of the city in the future.

The degree to which the existing transportation system meets identified goals and objectives can indicate needs that are not being met by the existing transportation system. The transportation analysis contained in this section is intended to provide an idea of where in the system problems might exist in the future. This analysis indicates sections of road of which the future traffic volumes will likely outstrip present capacity. Those segments should be monitored in the future, and funding for needed improvements should be programmed for the appropriate time. Areas projected to need capacity improvements in the future are as follows:

1. S. R. 74--all segments north of Wisdom Road, and between S. R. 54 and Kelly Road;

2. S. R. 54 and between S. R. 74 and Peachtree Parkway;


The above road segments will be inadequate as two-lane facilities under future traffic loads. Serious consideration should be given to planning for the future through designing and constructing any facilities related to these segments to carry a minimum of four lanes of traffic, this will include a four-lane bridge on Crosstown Highway.

The above recommendations address only those deficiencies created by internal residentially-generated trips. A more detailed study would reveal the additional load on streets caused by trips attracted by commercial and industrial activities in Peachtree City. That would provide a more complete assessment of capacity deficiencies so that specific solutions to future problems may be developed and programmed for implementations. This analysis does, however, indicate where future capacity deficiencies are likely to develop in the future, and which areas should be monitored for future development of problems.
Before specific improvements are identified or implemented, however, a detailed analysis of travel patterns--beyond the scope of this section--should be undertaken. Such a study would include complete origin-destination information and, possibly, computer analysis of data. Data developed from such an analysis would help assure that problems have been accurately identified and appropriate solutions selected for implementation.

Air Facilities

The importance of air linkages between Peachtree City and the outside world is becoming more apparent as the city grows. Falcon Field, located in the Industrial Park, presently is limited in scope and is generally considered a local airport. Given the unique nature of Peachtree City and the length of time needed for planning, financing and construction, serious thought should begin immediately as to what kind of airport the city needs and wants and to how that facility might be realized.

Goals and objectives for air transportation in the city should be set. Appropriate research and studies should be performed in order to comprehensively examine not only air transportation needs for the city, but also:

- the symbiotic relationship between the city and the airport,
- the impact of the present and future industrial area on airport development, and vice-versa,
- the regional role of Peachtree City and its airport, and
- ownership and financial arrangements.

In the meantime, the city should be looking at ways to protect ground and air space in the area immediately surrounding Falcon Field. For example, there could be a moratorium on development within X number of feet or miles of the existing airport, until such time as definite plans are made for that space. The city should utilize its zoning powers as one means of helping to protect this area both at the present while concepts are being discussed, and in the future in order to help implement airport plans. The zoning ordinance may, in fact, need another classification to provide for airport protection, both on the ground and in the air.
CHAPTER 5
PRESENT LAND USE

Any attempt to plan for future development in Peachtree City needs an adequate information base from which to start. Analysis of the present land use provides a base line from which to project future development based on the identified concepts, goals and objectives. Areas in Peachtree City are divided into 12 use categories:

1. Low density single-family residential  LDSF
2. Medium density single-family residential  MDSF
3. Medium density multi-family residential  MDMF
4. High density multi-family residential  HDMF
5. Community Services  CS
6. Recreation  RC
7. Office  OF
8. Commercial  CM
9. Industrial  ID
10. Open Space  OS
11. Water  WA
12. Vacant  VA

Vacant land and open space account for 73 percent of present uses of land in Peachtree City. Of the developed land, residential areas account for the largest share of use (52 percent), followed by industrial (19 percent) and water (12 percent). Table 9 and Map 19 reflect estimates present land use in Peachtree City.
# Table 9

## Present Land Use

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Number of Acres</th>
<th>Percent of Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential sub-total</td>
<td>2,221</td>
<td>14.3</td>
</tr>
<tr>
<td>LDSF</td>
<td>737</td>
<td>4.8</td>
</tr>
<tr>
<td>MDSF</td>
<td>1,321</td>
<td>8.5</td>
</tr>
<tr>
<td>MDMF</td>
<td>118</td>
<td>0.7</td>
</tr>
<tr>
<td>HDMF</td>
<td>45</td>
<td>0.3</td>
</tr>
<tr>
<td>Community Services</td>
<td>226</td>
<td>1.5</td>
</tr>
<tr>
<td>Recreation</td>
<td>192</td>
<td>1.2</td>
</tr>
<tr>
<td>Office</td>
<td>74</td>
<td>0.5</td>
</tr>
<tr>
<td>Commercial</td>
<td>212</td>
<td>1.4</td>
</tr>
<tr>
<td>Industrial</td>
<td>796</td>
<td>5.1</td>
</tr>
<tr>
<td>Water</td>
<td>520</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Developed sub-total</strong></td>
<td>4,241</td>
<td><strong>27.4%</strong></td>
</tr>
<tr>
<td>Open Space</td>
<td>4,744</td>
<td>30.6</td>
</tr>
<tr>
<td>Vacant</td>
<td>6,509</td>
<td>42.0</td>
</tr>
<tr>
<td><strong>Undeveloped sub-total</strong></td>
<td>11,253</td>
<td><strong>72.6%</strong></td>
</tr>
<tr>
<td><strong>LAND AREA TOTAL</strong></td>
<td>15,494</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Sources:** City of Peachtree City; Peachtree City Development Corporation; McIntosh Trail Area Planning and Development Commission.

**Note:** These acreages were calculated as accurately as possible, given available information. These are estimates; no attempt was made to determine the size of individual parcels of land. These figures are intended to show approximate ratios of acres in each land use category.

**Residential**

Residential land accounts for over one-half of all currently developed land. Densities assumed for the categories identified above are summarized in Table 10. These residential areas also include land devoted to local streets, paths and buffers.
Table 10

Residential Density

<table>
<thead>
<tr>
<th>Category</th>
<th>Average dwelling units per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low density single-family</td>
<td>0.67</td>
</tr>
<tr>
<td>Medium density single-family</td>
<td>2.00</td>
</tr>
<tr>
<td>Medium density multi-family</td>
<td>4.00</td>
</tr>
<tr>
<td>High density multi-family</td>
<td>12.00</td>
</tr>
</tbody>
</table>

Sources: City of Peachtree City; Peachtree City Development Corporation; McIntosh Trail Area Planning and Development Commission.

Low density single-family areas are generally considered to have lots of one acre or more. These areas are probably economically unfeasible to sewer. Therefore, lots large enough to facilitate septic systems are required. These low density areas occur primarily south of S. R. 54 and east of Robinson Road. Other areas are located on Peachtree Parkway and north of Walt Banks Road; and on Crabapple Lane, near the intersection of the proposed realignment of S. R. 74 and Peachtree Parkway. There are an estimated 737 acres in Peachtree City currently developed as low density single-family. This accounts for 33.2 percent of all present residential land; 17.4 percent of all developed land; and, 4.8 percent of the total area of Peachtree City.

Medium density single-family areas are generally considered to have lots of one-quarter acre to one acre. A central sewerage system is required in these areas due to density. These medium density areas occur primarily in the east central part of the city: south of S. R. 54, east of Flat Creek, and west of Robinson Road. Other major areas are located between Lake Peachtree and S. R. 74; and in the north central part of the city, off Flat Creek Road. There are an estimated 1321 acres in Peachtree City currently developed as medium density single-family. This accounts for 59.5 percent of all present residential land; 31.1 percent of all developed land; and, 8.5 percent of the total area of Peachtree City.

Medium density multi-family areas are generally considered to contain three to six units per acre. Housing types include cluster, duplex and multi-family units. A central sewerage system is required in these areas due to density. These medium density areas occur in scattered areas, primarily near S. R. 54 and the intersection of the McIntosh Trail and Peachtree Parkway. There are an estimated 118 acres in Peachtree City currently developed as medium density multi-family. This accounts for 5.3 percent of all present residential land; 2.8 percent of all developed land; and 0.7 percent of the total area of Peachtree City.
High density multi-family areas are generally considered to contain 7 to 25 units per acre. Housing types include apartments and condominiums. A central sewerage system is required in these areas due to density. These high density areas occur in Willowbend Center and Peachtree Elementary School. There are an estimated 45 acres in Peachtree City currently developed as high density multi-family. This accounts for 2.0 percent of all present residential land; 1.1 percent of all developed land; and, 0.3 percent of the total land area of Peachtree City.

Community Services

Community Services include the Municipal Building, which houses city government offices, the police department, and the public library; fire stations; schools; churches; cemeteries; and, public works, such as water treatment and storage and pollution control facilities. These areas are scattered throughout the city's developed areas, but concentrate along the S. R. 54 axis. These facilities generally are located near the existing village centers of Aberdeen and Glenloch and arterial thoroughfares. These locations are easily accessible by city residents. There are an estimated 226 acres in Peachtree City currently developed as community service facilities. This accounts for 5.3 percent of all developed land; and, 1.5 percent of the total area of Peachtree City.

Recreation

Recreation land uses include public, school and privately owned baseball, softball, football and soccer fields; tennis, handball/racquetball, basketball and volleyball courts; track; golf; swimming; playground and picnic areas; horseback riding; boatramp/sailing; BMX track; skeet amphitheater; and, indoor recreation. These facilities are primarily located in or near residential areas and public schools. These locations are easily accessible by city residents. The Peachtree City Recreation Department oversees the city-owned facilities and promotes joint use with the Fayette County Schools or recreation facilities in the city. There are an estimated 192 acres in Peachtree City currently developed for recreational purposes. This accounts for 4.5 percent of all developed land; and, 1.2 percent of the total areas of Peachtree City.

Office

Land devoted primarily to office use occurs chiefly in two locations within the city. These are: on and near S. R. 54, west of Robinson Road, including Eastbrook Office Park; and, West Park, an office commercial center in Aberdeen Village Center near the intersection of S. R's 54 and 74, as well as adjacent Willowbend Center. Other offices are found in primarily commercial areas, especially on S. R. 54. There are an estimated 74 acres in Peachtree City currently developed for office use. This accounts for 1.7 percent of all developed land; and, 0.5 percent of the total area of Peachtree City.
Commercial

Commercial uses include retail, office, medical, training and other services. These areas, at present, lie exclusively along S. R. 54; and, to a less extent, along S. R. 74 north of S. R. 54. Commercial areas at Aberdeen and Glenloch Village Centers comprise the bulk of these areas. The village centers are located at major intersections (S. R. 74/S. R. 54 and S. R. 54/Peachtree Parkway) and thus are easily accessible by city residents. There are an estimated 212 acres in Peachtree City currently developed for commercial uses. This accounts for 5.0 percent of all developed land; and 1.4 percent of the total area of Peachtree City.

Industrial

Industrial uses include those manufacturers located in the industrial park; the airport; and two smaller industrial areas outside the park. The Industrial Park is located along the axis of the generally parallel S. R. 74, Seaboard Coastline Railroad, and Dividend Drive, and is served by Georgia Power Company, Coweta-Fayette Electric Membership Corporation and Atlanta Gas Light Company. Companies in the park manufacture a variety of products. Total manufacturing employment in Peachtree City is estimated at 1471. Table 11 summarizes information about the present occupants of the Peachtree City Industrial Park.
<table>
<thead>
<tr>
<th>Company</th>
<th>Product(s)</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alenco, Division Redman Building Products</td>
<td>aluminum residential windows</td>
<td>100</td>
</tr>
<tr>
<td>Alternate Energy System, Inc.</td>
<td>propane and gasoline systems</td>
<td>6</td>
</tr>
<tr>
<td>Anderson 2000, Inc.</td>
<td>fan, blowers and pollution control equipment</td>
<td>28</td>
</tr>
<tr>
<td>Berry, Jack W. and Associates, Inc.</td>
<td>aerial photography, mapping</td>
<td>10</td>
</tr>
<tr>
<td>Continuous Forms and Checks, Inc.</td>
<td>business forms and checks</td>
<td>13</td>
</tr>
<tr>
<td>Exposa1c Industries</td>
<td>precast concrete</td>
<td>70</td>
</tr>
<tr>
<td>Fairburn Ready Mix, Inc.</td>
<td>ready-mixed concrete</td>
<td>10</td>
</tr>
<tr>
<td>Fasson, Division of Avery International</td>
<td>pressure sensitive papers</td>
<td>117</td>
</tr>
<tr>
<td>Flinkote Company, Division of Gerstar</td>
<td>roofing materials</td>
<td>110</td>
</tr>
<tr>
<td>Georgia Pacific Corporation</td>
<td>resins</td>
<td>31</td>
</tr>
<tr>
<td>Gilliland, Malcolm T., Inc.</td>
<td>welding equipment</td>
<td>20</td>
</tr>
<tr>
<td>Hi Brand Foods</td>
<td>meat products</td>
<td>153</td>
</tr>
<tr>
<td>M. A. Industries, Inc.</td>
<td>various products</td>
<td>110</td>
</tr>
<tr>
<td>McElroy Metal Mill</td>
<td>metal roofing and siding</td>
<td>25</td>
</tr>
<tr>
<td>Meltex, Inc.</td>
<td>hot melt machinery</td>
<td>12</td>
</tr>
<tr>
<td>Louis Parein International, Inc.</td>
<td>wafers</td>
<td>22</td>
</tr>
<tr>
<td>National Cash Register</td>
<td>parts distribution</td>
<td>600</td>
</tr>
<tr>
<td>Paschall, Norman W., Co.</td>
<td>textile fibers</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 11 (Con't)

**Industrial Park Occupants**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photocircuits Atlanta, Inc.</td>
<td>printed circuit boards</td>
<td>57</td>
</tr>
<tr>
<td>Robert K. Price Co. DBA</td>
<td>mobile display units</td>
<td>18</td>
</tr>
<tr>
<td>price exhibit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanford Co. Building</td>
<td>wooden building components</td>
<td>60</td>
</tr>
<tr>
<td>Components Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schwan - Stabilo USA, Inc.</td>
<td>pen and markers</td>
<td>18</td>
</tr>
<tr>
<td>Spyraflo, Inc.</td>
<td>bushings and fasteners</td>
<td>13</td>
</tr>
<tr>
<td>TDK Electronics, Corporation</td>
<td>video cassette tapes</td>
<td>200</td>
</tr>
<tr>
<td>Voxcom, Inc.</td>
<td>audio visual communications</td>
<td>18</td>
</tr>
</tbody>
</table>

**Total Employment:** 1,471

Sources: Georgia Manufacturing Directory 1984-85, Georgia Department of Industry and Trade; Peachtree City Development Corporation; McIntosh Trail Area Planning and Development Commission.

There are an estimated 796 acres in Peachtree City currently developed for industrial uses. This accounts for 18.8 percent of all developed land; and 5.1 percent of the total area of Peachtree City.

**Water**

Water bodies include Lake Peachtree, Flat Creek Reservoir and Wynn's Pond. These are considered developed, as water impounded for consumption or recreational purposes is not available for other development. Creeks and other tributaries are included in the open space category. Lake Peachtree and Flat Creek Reservoir are located on Flat Creek; Wynn's Pond on Line Creek, north of S. R. 54. There are an estimated 520 acres in Peachtree City currently developed as water impoundments. This accounts for 12.3 percent of all developed land; and, 3.4 percent of the total area of Peachtree City.

**Open Space**

Open Space includes creeks; tributaries; drainage areas; wetlands; floodplains; city greenbelt areas; and rights-of-way and easements related to arterial and collector roads, paths, and railroad tracts. There are an estimated 4,744 acres presently devoted to open space in Peachtree City. This accounts for 42.2 percent of all undeveloped land; and, 30.6 percent of the total area of Peachtree City.
Vacant

Vacant land includes all that area in the city which will, in all likelihood, be developed at some point in the future. This land has favorable characteristics for development. Future residential and industrial uses are most likely for this vacant land. The bulk of this category of land is located south of existing residential areas and east of Flat Creek; south of existing industrial uses west of Flat Creek; along S. R. 74, north of S. R. 54; and, in the northern portions of the city, on both sides of Flat Creek Reservoir. There are an estimated 6,509 acres of vacant land currently in Peachtree City. This accounts for 57.8 percent of all undeveloped land; and 42.0 percent of the total area of Peachtree City.

Summary

Peachtree City has developed, to date, around three nodes or areas. The first two are the village centers of Aberdeen and Glenloch. These centers are located on S. R. 54: Aberdeen at S. R. 74; and Glenloch at Peachtree Parkway. The village centers, accessible by major thoroughfares, include a variety of retail, office and service facilities. Recreation community service, multi-family and medium density single-family developments are in close proximity to the village centers. Low density single-family lies further away from the village centers. The third area of existing development centers around the industrial park. This area is physically separated from residential and other developments by S. R. 74, but is easily accessible by area residents. Vacant land is the predominant land use category, followed by open space. This undeveloped land accounts for nearly three-fourths of the total area of Peachtree City. Except for Lake McIntosh, open space should not be developed. Existing vacant land should be sufficient to meet current and foreseeable needs for additional residential and industrial land.
CHAPTER 6
FUTURE LAND USE

The viability of Peachtree City of the future depends on how well city officials, professional staff and residents are able to interpret, implement and adopt this plan according to the purpose, concepts, goals and objectives previously established. To reiterate, the purpose of the Peachtree City Land Use Plan is to guide the physical development of the city. Primary concepts are:

1. Protection of the natural environment,
2. Planned growth,
3. Village centers, and
4. Appropriate industrial development.

Goals and objectives for Peachtree City were established in Chapter 1 of this plan. This chapter represents the interface between these goals and objectives, and the reality of physical development. Those broad categories of goals directly related to the use of land will be discussed here. Planning and implementation and transportation issues are addressed in Chapters 4 and 7, respectively. Other than planning for future spatial needs, the goal and objectives dealing with social concerns such as health, education and culture are beyond the scope of this plan.

Environment and Land Use considerations provide the broad framework for planning. The other more narrowly defined goals, as they relate to future development, will be examined individually; Goals:

-- Protect environmentally sensitive areas from development while extending the open space concept throughout future development

-- Provide for the appropriate allocation and compatible arrangement of land uses

Planning should help communities identify and conserve many habitats less obvious than forests - such as thickets, hedge rows and wetlands - which provide food and shelter for a surprising quantity and variety of wildlife. Even in urbanized areas, careful attention to habitats can lead to a more sensitive open space planning and wildlife preservation. Lack of planning permits the consumption of apparently "insignificant" natural areas - resulting in a loss of wildlife habitat.
Planning should help Peachtree City identify and maintain the fragile ecological balance of wetlands, which are most valuable in their natural state, serving as habitat and nursery for fish and waterfowl and as recreational, scientific and educational purposes. When used to hold runoff, as a discharge area for polluted or heated wastewater, as a dumping ground for garbage, or when filled for development, wetlands can be quickly altered and destroyed.

Well-planned development should avoid draining and building in freshwater wetlands to maintain their natural "sponge" action and, thus, the water table. This also preserves the wildlife habitats and recreation opportunities of these areas. Unplanned or careless development in or near wetlands can disrupt drainage patterns and deplete the water runoff to other areas, causing erosion and sedimentation in those areas. Excess runoff and sewage can pollute these wetlands.

Planning should identify steeply sloping areas that may create risks and raise the costs of construction; it preserves their beauty by maintaining these areas in open space. Steeply sloped areas increase construction costs and are more likely to erode or slump when disturbed, thus causing loss or damage to development both on the slope and to areas downslope.

Planning should explore and identify areas where subsurface geological structure is weak, so potential risk to new development may be avoided. Weak subsurface formations are prone to subsidence and collapse, posing a potential danger to development on the surface above them.

South slopes receive more sunlight and, in hilly regions, are protected from prevailing northerly winds in the winter. North slopes receive less sunlight than south slopes, and are therefore colder and wetter. They are also exposed to the prevailing northerly winds in winter. Development below the crest of a hill reduces its visibility to others and increases the availability of groundwater source. Higher land also reduces the chance of problems with drainage and septic systems. Development at the crest of a hill is exposed to wind from most directions. It is highly visible and thus can destroy the natural character of the site and its surrounding area. Groundwater sources may be unavailable or expensive to reach. The lowest areas on the site may be the coldest and wettest, thus increasing the chance of problems with heat, drainage and septic systems.

The lay of the land should suggest the most attractive and sensible locations for development. Areas that would be difficult, damaging or too expensive to work on should be avoided. Areas of special interest should be selectively preserved in their natural state or carefully and slightly altered to reveal or enhance their presence. Careless lotting and bulldozing can flatten a site and destroy its natural character.
Destruction of variety in the landscape and ignoring special features can turn interesting land into a parking lot. The land loses its appeal, both to residents and passersby.

Topographic features should suggest where to construct access roads. Such roads that follow these features are more attractive, less steep and fit in better with the site. A conventional, grid-type development, which looks good as a plan on paper, can wreck a site by ignoring these topographic features. Access roads will be steeper, and arbitrary lot locations will mean excessive construction costs and a greater likelihood of problems with erosion, septic systems, and slippage. The site's character can be destroyed.

On soils neither too wet nor impervious, sewage from buildings with septic tanks is properly purified. Since septic tank runoff travels neither too fast nor too slow through the soil, odor and germs are removed. The chances of polluting surface and groundwater is very low. Soils which are too permeable, such as sand, permit sewage to run through it too quickly to be purified, increasing chance of pollution to surface and groundwaters. Soils which are not permeable enough, such as clay, will cause sewage to seep to the surface, creating wet, smelly and unsanitary conditions. Bedrock too close to the surface will cause sewage to be deflected back to the surface, also causing unsanitary conditions.

On proper soil, buildings are provided with good, stable support. The chances of shifting, slumping or settling are minimized. Improper soils, even on moderate or minor slopes, may be unable to bear the weight of construction equipment, buildings or traffic. Settling, shifting and slippage can result in damage and constant maintenance problems.

On moderate or minor slopes, soil will erode less. The costs of foundation construction, septic system, or sewer installation and roadbuilding are lower. On steep slopes, soils prevent severe problems for buildings, roads and septic systems. Septic runoff may be difficult or impossible to control. The tendency for disturbed soil to erode or slump is high. The costs of engineering, installing septic, sewer and other utility systems is greatly increased.

Properly planned development retains major gullies and steep slopes in open space, thus reducing flooding and slumping hazards. Development in major gullies is subject to periodic flooding. On steep slopes, the hazard is also great, since even on good soils, there is a danger of slumping in very wet conditions.

Identification of floodplains is necessary in guiding development away from possible harm. Zoning and other controls can help assure that development and floods stay separated. Lack of planning can place development in a floodplain, guaranteeing periodic flooding of homes and
businesses, risking life and property, interfering with the free flow of water, and often requiring very expensive control devices, such as dams, levees and channel modifications.

Water is precious to all life. Water bodies such as streams, lakes and ponds can be a beautiful asset to a development, giving greater amenity value and offering greater recreation opportunities. Altering a stream by channelizing, damming or filling, disrupts drainage and can cause undesirable erosion off-site. Filling a wetland destroys wildlife habitat.

Permeable surfaces are reduced by the imposition of impermeable surfaces of development, such as roofs, roads and parking lots. Potential erosion and pollution damage may be reduced by the use of properly designed and engineered drainage systems. These include: subsurface catch basins and distribution pipes; diversion channels and catch basins; and permeable paving materials for drives and parking areas. When runoff precipitation is increased by the increased impermeable surfaces that accompany development, an absence of properly designed and engineered drainage controls may result in erosion of soil and pollution of surface water by sedimentation, gasoline and oil.

Staying out of a floodplain will eliminate the danger of buildings being flooded. Higher ground allows proper purification of septic system runoff, which in turn prevents surface water from being polluted. Development in a floodplain will cause dwellings to be periodically flooded. The water table will be too high to permit the installation of septic systems; otherwise, the surface water would quickly become choked with filth.

Recognizing drainage patterns and not building in wet areas or swales helps avoid later problems with locating drinking water, placing septic systems, wet basements and sagging foundations. Ignoring drainage patterns will result in costly problems for units sited in swales where the soil is disturbed. Water seeking new runoff channels will cause erosion off-site. Wet areas will not permit the installation of septic systems. Wood posts and sills will rot quickly, causing structural damage.

Careful development recognizes the value of retaining vegetation, since it helps control runoff, stabilizes slopes and attracts wildlife. In addition, careful development on ponds and lakes retains trees as a buffer between the wind of a storm and buildings, including retaining unattractive wind-clipped trees closest to the water, which protects the rest of the wooded area.

Careless development, which destroys vegetation, weakens slopes, increases flood hazards, increases erosion and creates sediment which may pollute and fill rivers and ponds. This type of development, which removes wind-clipped trees on the edge of a wooded area, will cause blow down damage to the rest of the wooded area during storms. The development may lose its protection from the wind.

96
Valuable forest resources should be identified and properly managed to assure continuing harvest and regeneration. Poor planning can result in the loss of the city's forest resources, either through impatience to accommodate land uses with a higher short-term value or squandering resources through poor forestry practice.

Retaining vegetation, especially trees (or at most, carefully pruning the lower branches of trees and thinning groundcover), helps to preserve the character of the site, making it more enjoyable to look at and live in. Saving trees also makes economic sense, as wooded lots are usually more valuable than barren ones. Bulldozing the vegetation may make it easier for heavy equipment to maneuver, but the character of the site may be destroyed. As a result, even the best architecture can look stark and uninviting. In the long run, the developer or residents will spend more money making the site attractive again.

Buffers consisting of trees and shrubs can provide privacy and reduce noise. Stripped of vegetation, a site loses privacy and protection from excessive noise from roads, industrial areas, or other such generators.

Vegetation helps preserve the natural drainage on-site and reduces the chance of erosion by binding and protecting the soil. Stripping vegetation, especially when coupled with regrading, disrupts natural drainage, making erosion more likely to occur. Vegetable also provides protection from high wind and shade for cooling in the summer. Without such protection, land and buildings are more vulnerable to the elements.

Vegetation should compliment and emphasize the lay of the land, even in areas where land forms vary little. This is especially true on flat terrain, where a variety of vegetation types and sizes can reduce monotony and give character to a site. Thoughtless cutting can ruin a development by flattening the site's appearance. This can severely damage the integrity of the topography, increasing monotony.

Cover provided by streamside vegetation shades the water, keeping it cooler and thus more tolerable for certain fish. Lack of such cover causes these streams to heat up, lessening tolerance levels in most fish.

Planning should help the city maintain the visual variety of the landscape, and the city's unique character. Unplanned development can flatten hills, raise valleys, straighten curves to excess and spread look-alike buildings. This eliminates variety in the landscape and destroys the city's character.

Well planned signs can enhance the character of the city and existing businesses. Unplanned signs can be dangerous if they block vision or create distracting lights.
The approach to Peachtree City from the several directions should be a gateway that gives a first impression of the city's unique character as it visually establishes a sense of place and heightens a traveler's anticipation of arrival. Unplanned strip development can degrade or destroy the sense of approach to Peachtree City. The sense of transition from Tyrone, Fayette County or Coweta County can be obscured.

Development below the crest of a hill or ridge line preserves the land form, or the profile of the land. Development at the crest or ridge line interferes with the land form, allowing buildings to dominate.

The desirable features should be capitalized upon, such as carefully opening a view to distant hills. Undesirable features may be avoided or screened by vegetation. This may be accomplished by preserving existing vegetation or by planting new trees and shrubs. Vegetation also helps blend buildings and other structures with the landscape. Careless planning can result in the loss of desirable features.

Private public rights need not conflict. Careful planning should allow subdivision and a scenic overlook to coexist by clustering the development below the sight of the overlook. Lack of planning can result in obstruction of public views and loss of privacy in the subdivision.

The existing pattern of land use should indicate whether or not a proposed development will fit in visually. The new development should reflect the character of existing adjacent development. Ignoring the existing pattern of land use can result in an homogenized nightmare. Mixed buildings of inconsistent sizes and/or uses can destroy desirability and values.

Thorough planning should identify possible sites of archeological value, and, if warranted, avoid disturbing them. The identification and exploration of these sites should enhance the character of both the city and development, while possibly yielding important scientific or historical knowledge. Unplanned development can destroy such sites.

Planning should help the city identify proper locations for development on lakes, while retaining swimming and boating areas. Poor planning can lead to conflicting uses of shorelines and reduce public access for recreational purposes.

Established footpaths, open space along creeks, corridors parallel to existing transportation routes and abandoned rights-of-way, offer significant potential for hiking, biking and riding. Planning should help the city identify and utilize these resources. Poor planning can result in the loss of this recreational and passive transit potential. Such paths should be physically separated in order to reduce the probability of accidents.
Old quarries, gravel, and sandpits and other mining sites, when properly reclaimed, should have second lives as recreational areas for swimming and boating.

Future Land Use Patterns

Development of Peachtree City around four village centers should and will promote the basic development concepts described in Chapter One. Crucial to this idea are:

1. Mixed-use, and
2. Step-down development.

Mixed-use involves the proximity of various uses in a compatible manner. The village centers should include retail, office and community facilities and be situated at major intersections. The neighborhood activity centers are smaller versions of a village center, and decentralized to convenience, energy conservation and promoting a sense of neighborhood. In both instances, adjacent developable land should be in the form of residential development of sufficient density to support the village center or neighborhood activity center. Further distances should be developed as medium density single-family, providing a transition to outlying areas of large lot, low density single-family development.

Village Centers. The village centers should provide the major convenience retail shopping, local office space, community recreational and educational activities that will be used by residents on a daily basis. The village centers will vary in size of retail activity dependent upon road access and population served.

In terms of community, recreational and educational uses, the concept of multiple-use is basic to the planning of the village centers. The multi-use of these facilities will assure a high utilization and provide an opportunity to intensify activity and contact among people. Such multiple-use reduces the unnecessary duplication of facilities and, thus frees resources for additional programs or specialized facilities.

To achieve the multiple-use of school facilities, the junior and senior high schools should be physically related to each other whenever possible. A part of each secondary school should be available for use by residents for community activities such as recreation, adult education, cultural and entertainment events conducted in the evenings, weekends and vacations.

The village centers should be located at points of special amenity and high accessibility. All centers should be linked by the path system and primary roads. The range of facilities at the village centers includes: secondary schools, commercial and office space, religious facilities,
health clinic, recreational and community facilities. The magnitude and variety of activities should vary at each center with site conditions, size of population served, and level of accessibility.

Appropriate mix of uses at each village center should promote shared use of the following facilities:

- Retail
- Office space
- Community facilities
- High school and/or junior high school
- Early learning and/or adult education
- Religious facilities
- Banking Institutions
- Recreation facilities
- Medical clinic
- First aid and/or emergency medical services
- Shared parking
- Path link to residential areas

Neighborhood Activity Centers. A small, decentralized version of the village center should be constructed at various locations around the city. These neighborhood activity centers (NAC) should be convenient, easily accessible, and provide a variety of activities. Multi-use of facilities should be emphasized. Basic components include day care, a community meeting room, neighborhood recreation, post office, and small commercial activity. The intention of the neighborhood activity center, so organized, is to enhance local neighborhood relationships based on an understanding of the social organization of the community, and the role the neighborhood can play in the lives of adults and children.

The NAC should be architecturally flexible to reflect the dynamic needs at the neighborhood level. These structures may be modular units, capable of alterations as needs change.

Appropriate mix of uses at each NAC should promote the shared use of the following facilities:

- Convenient store
- Community meeting room
- Early learning, elementary school, or adult education
- Recreation
- Post office
- First aid
- Shared parking
- Path link to residential areas

Map 20 illustrates the development concepts relative to mixed-use village centers, neighborhood activity centers and the step-down principle.
Residential

Goal:

Provide opportunities for an appropriate mix of dwelling types, sizes and prices in order to meet the current and projected needs of city residents of all socio-economic groups in accordance with their financial capabilities, mobility and preference.

Low density single-family uses should continue to be developed along the eastern and northern border of Peachtree City; as well as in the extreme northwest corner of the city. That area along the eastern border is probably economically unfeasible to sewer. Low density development in this area will promote the step-down theory, in that these uses are located physically further away from existing and future village centers. This type development is conducive to independent, potentially self-sufficient homesteads. See Figure 7.

Medium density single-family uses should continue to be developed in its present pattern. That is, to the southeast from current construction in the McIntosh Trail area, along the eastern side of Flat Creek. In addition, medium density single-family should be developed to the northwest of existing MDSF uses above Flat Creek Road; and south of S. R. 54 along Line Creek. Medium density single-family in these areas will promote the step-down theory, in that these uses generally provide a transition between denser development at the village centers and low density single-family.

Medium density multi-family uses should be developed closer to existing and future village centers and along the arterials of S. R.'s 74 and 54. This will allow for high density development near the village centers for economic reasons; and for ease of access from the arterial roads. Some MDMF should also be constructed near the Industrial Park, so as to permit close work/home relationships. Development in this manner will promote the step-down theory, in that these uses are located near concentrated activity, and not scattered incompatibly throughout lower density areas.

High density multi-family uses should also be developed near existing and future village centers in order to sustain activities proposed for such locations. Additionally, HDMF development near the Industrial Park on the proposed Lake McIntosh will serve two purposes: provide proximity of large numbers of people to the city's primary job area; and, allow the maximum feasible number of people to enjoy the amenities associated with the lake. Development in these areas will promote the step-down theory, in that high density uses will be located adjacent to each other, permitting low density development to exist undisturbed further away from these commercial and employment centers.

In all residential areas, appropriate and adequate buffers between differing uses should be provided. These buffers may include creeks, streams and natural drainage areas; arterial roads; and other vegetated land dedicated to a buffer use.

Additionally, all proposed development should conform to all appropriate development regulations adopted by Peachtree City.
The city should prohibit residential development using wells and septic systems in areas of unsuitable soils.

The city should encourage the use of community septic systems where individual septic systems are undesirable and medium-to-high density unsewerable residential areas are desirable.

Peachtree City should prohibit residential development in flood prone areas.

The city should limit residential development in areas of unsuitable topography.

Residential areas should be developed so that housing units fit the general housing pattern, design, and appearance of existing units in the area.

Peachtree City should establish a system whereby new housing and other developments are continually mapped, in order to monitor the rate and location of development in the city.

While septic systems should be prohibited in areas with severe limitations, they can be allowed in areas with moderate limitations. This, of course, is assuming careful site planning takes place and corrective measures are utilized. However, there are other technologies, such as the composting toilet, which does not use water or discharge any waste into the ground, which are currently available. The use of this method of waste disposal may open up an area for residential development previously thought unusable.

At the community level, more compact development may be allowed to occur, using septic systems, than has been the case in the past. Another emerging technology is the "community septic system", whereby several housing units utilize the same septic equipment. Using this method, several homes are connected to the same septic system, only the waste is transferred off-site to a common filter field. In this way, more compact development can occur without the constraint of health considerations placed on conventional septic systems or the need for a central sewer system.

Clustered residential development should be thoroughly explored. Clustering allows the developer to develop lots smaller than those specified in the zoning ordinance, provided the land saved is reserved for permanent common use, usually in the form of open space. The cluster subdivision is often equated with the Planned Unit Development (PUD), which also usually employs a cluster site design, but PUD is a much broader concept. The PUD involves mixed uses, increased density in return for additional project amenities, and relaxed public improvement standards in return for better design. The true cluster subdivision, more closely resembles conventional subdivision practice, in that it complies with existing zoning in respect to overall density and use.
The cluster site design allows more economical use of the site than the conventional subdivision would. In order to yield the total number of lots permitted per acre, the conventional subdivision would have to cover the entire site with building lots. This, of course, is not feasible, since some portion of any given parcel of land will usually be unsuited for building, or some percentage of the tract must be dedicated as open space. Clustering, however, allows a developer the maximum effective density.

In addition to its potential as a cost-effective concept, clustering is also an environmentally sound form of site design. The well-planned cluster concentrates dwelling units on the most buildable portion of the tract and preserves natural drainage systems, open space, and other significant natural features that help control stormwater runoff and soil erosion. Energy is saved in clusters at the construction phase of the development by the reduction in street lengths and utility installations. Later savings in energy can be realized in street maintenance, electricity and water transmission, and in the provision of services like garbage collection. In some cases, additional energy savings can be achieved by increasing the vegetation and open space, which can reduce summer air temperatures and the need for air conditioning.

Figures 8 and 9 compare conventional and clustered developments on the same site. Figure 10 is an illustration of a zero lot line development, a type of clustering.

Clustered or individual residential development may also be allowed to occur in areas of relatively steep slopes, if proper design and construction techniques are used. Earth sheltered housing is built into the ground, either flat or sloping. This type of housing can offer drastically improved energy efficiency, privacy, and utilization of land for residential uses previously thought unusable. Related to these concepts is site orientation for utilization of solar energy. Requirements for this type of development are relatively simple, but careful planning is essential. Figures 11 and 12 show some of the ways in which these residential and community designs can be implemented.

The Peachtree City Land Subdivision Regulations and Building Codes should be amended in order to accommodate emerging technologies in the design and construction of passive solar and earth sheltered housing units and alternative waste disposal systems.

The site design of all new residential areas should be encouraged to utilize the natural energy flows in the sun, water, and wind, and alternative waste disposal systems in order to maximize the use of free energy and to minimize the costs of utility construction and conventional energy consumption.
Figure 8
CONVENTIONAL SITE PLAN

ALL DWELLING UNITS
SINGLE FAMILY 4 DU/AC

SOURCE: THE CLUSTER SUBDIVISION: A COST EFFECTIVE APPROACH, WELFORD SANDERS,
AMERICAN PLANNING ASSOCIATION, CHICAGO, ILLINOIS, 1980.
This type cluster development works well in creating a sense of neighborhood.

Average lot size — 5000 s.f.

20’ wide streets with houses tightly clustered frees more land for open space and natural preservation.

Although overall density is near 4 units per acre, 36% of site is in common green space.

4.7 parking spaces per unit are provided.

Modified building setbacks allow zero lot line on the front and one side yard of the house.

Minimum side distance between units is 10 feet.

Interior pedestrian paths connect homes to each other and to recreational building and pool.

Much of the natural tree cover was retained.

Traditional single family large-lot development
- All lots face public through streets
- Conventional setbacks required
- No common open space.

Source: ZERO LOT LINE DEVELOPMENT, WELFORD SANDERS, AMERICAN PLANNING ASSOCIATION, CHICAGO, ILLINOIS, 1982

108
Other emerging construction methods should be examined by the city and appropriate accommodations made in relevant regulations. In particular, an increasing proportion of new housing units are being manufactured in factories. Various methods and standards are used in these units. Agencies and organizations involved in these standards are the U.S. Department of Housing and Urban Development; The Southern Building Code Congress International; and, The Georgia Department of Community Affairs. New housing definitions should be examined by the city, including manufactured home; modular home; and, industrialized building. In particular, Georgia law prohibits a locality from distinguishing between a site-build house and an industrialized building vis-a-vis the city's zoning ordinance.

Commercial

Goal:

Develop commercial areas conveniently located in four village centers of approximately 10,000 residents each and which support land use development that conserves energy.

The village centers should be the primary commercial and office areas in Peachtree City. These centers should be located at major intersections, such as Westpark at Aberdeen Village Center. The existing village centers, Aberdeen and Glenloch, are located at the intersections of S. R. 74/S. R. 54 and S. R. 54/Peachtree Parkway, respectively. The third village, BraeLinn, should be located in the southern section of the city, at the proposed intersection of Peachtree Parkway and Crosstown Highway. The fourth village center should be located on Peachtree Parkway. These should be physically closer to the more decentralized residential areas in order to provide services and shopping of a more routine nature.

Activities associated with the village centers are described above in this chapter. These suitably placed commercial centers, with related activities, should be provided in order to satisfy community demands, while enhancing energy conservation, community cohesion and promotion of the established goal relative to commerce.

The following guidelines should be applicable to village centers and neighborhood activity centers:

1. Direct access to arterial or collector roads.

2. Adequate water, sewer, storm drainage and power systems.

3. Controlled ingress and egress in order to minimize traffic congestion.
4. Adequate off-street parking.

5. Safe access to residential areas via the path system.

6. Appropriate buffers, landscaping, set-backs and controlled signing and lighting to ensure quality development.

7. Strip and spot commercial zoning should be prohibited in order to avoid undermining of existing and future commercial and residential development.

**Industrial**

**Goal:**

Promote the establishment of a diversified industrial base of clean industries to support a stable economy.

The Industrial Park in Peachtree City should be the location for all existing and future industry in the city. The park is a clearly and logically defined area of the city set aside for the exclusive use of industry and related activities. Physical and developmental properties of the park are conducive to growth within the existing park by current and additional occupants of the park.

Efforts on the parts of the city and developers should be towards protecting the park from encroachments by non-industrial or otherwise incompatible land uses. The bulk of the existing park is located west of S. R. 74 and south of S. R. 54 along the southern portion of the western edge of Peachtree City. This area includes Falcon Field, Peachtree City's airport. Additional land, proposed for industrial development, lies west of S. R. 74 and north of S. R. 54. The Seaboard Coastline Railroad runs through the park, entering Peachtree City from the north, paralleling S. R. 74, to the southern section of the city, where it turns due south and enters Coweta County.

Another area is proposed as industrial use. This lies at the southern tip of the peninsula to be formed with the construction of Lake McIntosh. This area is proposed for mixed-use. A research and development office/industrial area; communications center; lake-oriented recreational activities; and limited commercial uses are proposed to compliment the high density multi-family area immediately to the north of the peninsula.

Features associated with the Industrial Park should include the following:

1. Direct access to an arterial road; or easy accessibility to an arterial.
2. Access to rail facilities, where appropriate.

3. Proximity to Falcon Field.

4. Sites of adequate and various sizes.

5. Available water supply, sewerage system, storm drainage facilities and power supplies.

6. Accessibility by employees and visitors who live in Peachtree City and elsewhere, including Fayette, Coweta and other Counties; and, including path links to adjacent residential areas in Peachtree City along S. R. 74 and on the Lake McIntosh Peninsula.

7. Appropriate buffers established between industrial and other uses.

Community Services and Facilities

Goal:

Develop a community infra-structure of public utilities, facilities and services to address public needs.

Community services and facilities in Peachtree City consist of water distribution; sewerage disposal; solid waste collection; police, fire and emergency medical services; public library; and other services performed by city government. Although the city is not the service provider for water, sewerage and solid waste, it does oversee the operations and is responsible for maintaining agreements with the provider to ensure the service does reach city residents.

The primary responsibility of the city, relative to these community services and facilities, is to provide adequate space and location for existing future facilities. The city should also keep track of development requirements to ensure that developers bear a fair share of, and responsibility for the costs of community infra-structure related to new development.

Adequate land should be reserved for anticipated needs, such as an additional sewerage treatment plant discussed in Chapter Three; additional fire and emergency medical services near areas of new development; new schools; and, other community type activities.

Schools represent, probably, the most land area of community facilities which should be reserved for future needs. These areas should be located near Braeinn and Village IV, such as the new elementary school at the intersection of Crosstown Road and Log House Road. The future school sites should be accessible by large numbers of people living near
the Village Centers, both by road and path. The schools should be situated near existing and proposed recreational sites in order to promote shared use, community cohesion and reduction in development and maintenance costs.

The city should initiate a water resource management program and a utilities plan, in order to address future needs of city residents. This plan should include Lake McIntosh, as additional storage will be needed for the areas rapidly expanding population.

Recreation

Goal:

Provide a full range of passive and active recreational facilities and services conveniently located for city residents.

Land for recreational purposes in the future should reflect appropriate placement based on the nature of the facility and needs of community residents. For instance, it would be unfeasible to construct public swimming pools in each neighborhood, unless the developer is willing to do so. Large, capital intensive projects such as swimming pools, gymnasiums, and the like, should be constructed and operated on a shared basis with private developers and public schools. Smaller, less expensive facilities such as playgrounds and ball fields can be decentralized in order to make such facilities more accessible to city residents.

In order to conserve public expenditures as well as land, future recreation facilities should, as much as possible, be in the form of expansions of existing facilities. This will result in economically serving the greatest number of people. Major recreational complexes should support the village centers while minor facilities should be designed to serve the neighborhoods. The city should encourage the development of private recreation in industrial development; multi-family areas; and single-family subdivisions. Natural features of the environment should be carefully developed for passive recreation, such as along the flood plain of Flat Creek. This area is ideal for an equestrian center.

As the city's population grows, recreation demands will increase. Planning should begin now in order for Peachtree City to enjoy the recreational amenities expected in a city of its kind. The facilities proposed below were developed according to the National Park, Recreation and Open Space Standards; projected population; and anticipated availability of city land dedicated to recreation. Proposed parks and facilities are numbered and correspond to the numbers with broken circles on Map 13. "Peachtree City: A Recreation Plan", prepared by the University of Georgia, is a vehicle for the development of a comprehensive Master Recreation Plan.
Proposed Parks:

20. baseball, pool, soccer, tennis, picnic
21. baseball
22. picnic, botanical, passive recreation
23. picnic, boat ramp, sailing
24. basketball, pool
25. handball, racquetball
26. camping, soccer, volleyball
27. picnic, botanical, passive recreation
28. picnic, tennis, soccer
29. camping, equestrian
30. picnic, archery
31. basketball, pool, volleyball

Existing Parks:

2. Boat Ramp Park - volleyball
5. Oak Grove Elementary School - indoor physical education area
7. Glenloch Recreation Center - volleyball
11. Jim Meade Fields - playground, picnic, track, football, basketball
13. McIntosh High School - basketball, pool
15. Pebblepocket Park - volleyball, picnic
16. Pebblestump Park - volleyball, picnic
18. Riley Field - soccer, tennis

Summary

Future land use patterns should reflect a continuation and refinement of planning in a planned community. At every step of the way, each proposed development should be examined as to how it helps to implement the Peachtree City Land Use Plan. The guidelines established in this plan, and as amended, should be used as the baseline by which to judge the proposed development.

Adjacent Land Use

Peachtree City has borders with three other jurisdictions: Fayette County; the Town of Tyrone; and Coweta County. Given the rapid rate of growth in the area, and the relative impacts development in Peachtree City has on the other jurisdictions, it is imperative that Peachtree City address potential problems of incompatible land use across the city limits. At present, the single greatest problem is the commercial strip developing along the arterials, especially on S. R. 54 east. Other uses are more compatible such as the predominant low density residential around most of the periphery of the city.
City officials should actively pursue planning relationships with these jurisdictions, in an attempt to influence developmental decisions in areas adjacent to Peachtree City. Regular contact and structured interplay should be established between Peachtree City staff; these three jurisdictions; and the other municipalities in Fayette County in order to bring about development that is good for the whole of Fayette County, as well as Peachtree City.

**Future Land Use Map**

The future land use map of Peachtree City is a conceptual, graphic illustration of how the city may look in the year 2000, assuming the land use plan is followed. While no plan can predict precisely where development will occur, awareness of the dynamic nature of change occurring in Peachtree City makes it obvious that any future land use map of the city is only one of many ways that the plan could be interpreted. The map is a synthesis of environmental factors; existing development; and the concepts, goals and objectives established in this plan. Map 21 depicts the future land use of Peachtree City based on the factors above. Table 12 represents approximate areas of the various land use categories illustrated on the future land use map.

**Table 12**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Number of Acres</th>
<th>Percent of Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Sub-total</td>
<td>7,277</td>
<td>47.0</td>
</tr>
<tr>
<td>LDSF</td>
<td>2,060</td>
<td>13.3</td>
</tr>
<tr>
<td>MDSF</td>
<td>3,884</td>
<td>25.1</td>
</tr>
<tr>
<td>MDMF</td>
<td>626</td>
<td>4.0</td>
</tr>
<tr>
<td>HDMF</td>
<td>422</td>
<td>2.7</td>
</tr>
<tr>
<td>Community Services</td>
<td>366</td>
<td>2.4</td>
</tr>
<tr>
<td>Recreation</td>
<td>247</td>
<td>1.6</td>
</tr>
<tr>
<td>Office</td>
<td>138</td>
<td>0.9</td>
</tr>
<tr>
<td>Commercial</td>
<td>584</td>
<td>3.8</td>
</tr>
<tr>
<td>Industrial</td>
<td>2,494</td>
<td>16.1</td>
</tr>
<tr>
<td>Water</td>
<td>792</td>
<td>5.1</td>
</tr>
<tr>
<td>Open Space</td>
<td>3,881</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15,494</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Comparison of land uses with other communities are interesting, though no hard conclusions can be drawn, since each municipality has different circumstances, definitions of categories, and existing development. Tables 13 and 14 compare Peachtree City with some other planned communities and average figures for the Atlanta region.
Table 13

**Future Land Use Comparison**

<table>
<thead>
<tr>
<th></th>
<th>Commercial</th>
<th>Industrial</th>
<th>Space</th>
<th>Single-Family</th>
<th>Multi-Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peachtree City, GA</td>
<td>4.0</td>
<td>16.2</td>
<td>23.1</td>
<td>39.7</td>
<td>7.3</td>
</tr>
<tr>
<td>Woodlands, TX</td>
<td>6.0</td>
<td>12.0</td>
<td>40.0</td>
<td>35.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Reston, VA</td>
<td>1.5</td>
<td>13.0</td>
<td>25.0</td>
<td>24.0</td>
<td>38.5</td>
</tr>
<tr>
<td>Columbia, MD</td>
<td>5.9</td>
<td>16.8</td>
<td>46.3</td>
<td>22.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Atlanta Region</td>
<td>5.5</td>
<td>4.7</td>
<td>34.0</td>
<td>43.0</td>
<td>9.6</td>
</tr>
</tbody>
</table>

**Note:** All numbers are percentages of that city's total area.

**Source:** Peachtree City Development Corporation; McIntosh Trail Area Planning and Development Commission.

Table 14

**Population/Commercial Ratio**

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Commercial</th>
<th>P/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peachtree City, GA</td>
<td>38,488</td>
<td>623</td>
<td>62</td>
</tr>
<tr>
<td>Woodlands, TX</td>
<td>155,000</td>
<td>1,025</td>
<td>151</td>
</tr>
<tr>
<td>Reston, VA</td>
<td>60,000</td>
<td>108</td>
<td>556</td>
</tr>
<tr>
<td>Columbia, MD</td>
<td>100,000</td>
<td>856</td>
<td>117</td>
</tr>
<tr>
<td>Atlanta Region</td>
<td>2,548,632</td>
<td>72,230</td>
<td>35</td>
</tr>
</tbody>
</table>

**Notes:**
1. Projected build-out population for Peachtree City, Woodlands, Reston, Columbia; 2000 population projection for Atlanta Region.
2. Direct comparisons using this method are not totally meaningful, in that the commercial figure for Reston, for example, does not take into account square footage of floors above the ground floor.

**Sources:** Peachtree City Development Corporation; Georgia Office of Planning and Budget; McIntosh Trail Area Planning and Development Commission.
Summary

Future land use patterns in Peachtree City will reflect the growth of the city. Additional land will be developed for village centers and industries, as well as residential. The numbers presented in this chapter are only estimates. The Future Land Use Map is an illustration. The Land Use Plan, in its entirety, should be considered the guide for directing growth.
CHAPTER 7
DEVELOPMENT ISSUES

This chapter is designed as a forum for addressing issues relevant to development needs and the application of planning principles. This chapter can also be used to state an adopted development policy of the City of Peachtree City. Items addressed in this section are: Implementation of the land use plan; erosion and sedimentation control; relationships with Fayette County and other jurisdictions; annexation; and planned unit developments.

Implementation

The city has a number of tools available in the implementation of the Peachtree City Land Use Plan. These tools include ordinances, specifications, other plans and a budgeting process that should be professionally applied to ensure the successful implementation of the plan. Some of these are already in force in the city; the others should be examined for possible adoption by the city.

1. Planning Program

The city should review the Land Use Plan annually with a major review every five years. Procedures should be established to facilitate amendments to the plan, which should be made as needed. Consideration should be given to the development of a Comprehensive Plan, including specific plans for recreation, transportation, utilities, community facilities, etc. On a practical level, the sections included in this land use plan could be expanded and the focus of the plan broadened to a more comprehensive basis, with land use as one element of the Comprehensive Plan. In lieu of this approach, individual plans can be adopted to address needs in areas identified above.

Techniques for streamlining the planning and permitting procedures should be evaluated, including:

a. The use of handouts, manuals, and other written materials

b. Holding informal pre-application meetings

c. Revision of existing ordinances

120
d. Examination of organization of regulating departments

e. Use of permit expediter

f. Preparation of master environmental impact reports

g. Elimination of duplicative hearings

h. Use of joint staff project review committees

i. Improvement of application forms

j. Use of a hearing official

k. Simultaneous processing of permits

l. Expedited processing of minor applications

m. Use of computers in planning and permitting

n. Elimination of consolidation of permit review steps

o. Delegation of decision-making authority to lower levels in administration

p. Strengthening appeal process

q. Improving citizen input procedures

r. Use of consultants to study procedural reforms

s. Staff training programs

t. Public education programs

u. Training for Planning Commission and City Council

v. Review recordkeeping procedures

w. Examination of joint planning commission with the county and other municipalities
2. 1977 Zoning Ordinance of Peachtree City, Georgia, as Amended

Zoning is the primary tool for implementing the land use plan. The Zoning Ordinance should be reviewed periodically in order to adopt it to changing development needs. In particular, attention should be given to residential densities to make sure that those densities allowed are consistent with and reflective of existing market forces. In addition, a mixed-use zone, or a planned unit development, should be considered in order to provide more flexibility in the implementation of the land use plan.

3. Land Subdivision Regulations

These regulations are designed to control the quality of individual developments. These regulations should be reviewed and amended as needed in order to promote greater flexibility, energy conservation, innovation in site development, and consistent with the land use plan.

4. Environment and Land Development Ordinance

This ordinance is intended to protect the natural environment and assure quality development in the city by regulating the alteration of land; the removal of certain vegetation; requiring erosion and sedimentation control; and establishing standards for drainage system design. This ordinance is a tool for carrying out certain concepts, goals and objectives discussed above.

5. Capital Improvements Program

The provision of capital improvements should be used as a means of scheduling and controlling the location of development of public improvements in the city. In order to plan and program public facilities, a realistic level of capital expenditures need to be maintained. Sources of funding in addition to taxation should be examined. The establishment of a sinking fund would assign priorities for capital projects such as road improvement, new recreational facilities, etc.
6. Street Design and Construction Specifications

These specifications are intended to establish design standards for clearing and grubbing of rights-of-way and easements, grading of streets and roadways, preparing of the sub-grade, installation of base, paving and grassing of areas behind curb lines. These regulations are intended to ensure that such work meets the latest specifications of the Georgia Department of Transportation.

7. Building and Housing Codes

These regulations are designed to control reconstruction and occupancy of buildings. The building code deals with the structural and mechanical soundness of new buildings. The housing codes sets minimum standards under which a dwelling may be occupied. The building code should be examine to consider expanding the materials-oriented to one of performance orientation. The housing code may become important in the future, as the existing housing stock in the city becomes older.

8. Energy Conservation Code

This code is designed to promote energy conservation at both the city government and community levels.

9. Landscape Ordinance

These regulations are intended to provide a means to control landscaping of industrial, commercial, residential and other developments through a design review process in order to enhance the aesthetically pleasing atmosphere of the city.

10. Recreation Plan

A city-wide recreation plan would comprehensively examine present and future needs, programs, facilities and funding sources for expanded availability of recreation in the city.

Erosion and Sedimentation Control

Peachtree City's population has grown rapidly in recent years and will likely continue to increase dramatically, including new roads, homes and
business centers. This growth results in drastic changes to the natural landscape and drainage systems. Increased pollutants are deposited on the land and washed into streams. The process can be harmful to our land and water resources unless properly managed. Damages can include water pollution, siltation of lakes and streams, flooding, collapsing streambanks, elimination of fish and wildlife and the destruction of the natural beauty which makes Peachtree City an attractive place to live.

These damages, however, are avoidable. The city can accommodate growth and take action to reduce adverse impacts and protect local water resources.

Water Cycle - The continuous movement of water through the air, ground, vegetation and surface water is known as the water or hydrologic cycle. Most precipitation in Peachtree City occurs as rain. Not all precipitation reaches the earth because some evaporates while falling. The remainder is either intercepted by vegetation and then transpired onto the atmosphere or returned to lakes, streams and ultimately the oceans via surface runoff or ground water infiltration. Evaporation from water bodies completes the cycle.

In an undeveloped setting, vegetative ground cover, soils, swales and irregular ground surfaces play a major role in capturing and absorbing runoff from rainfall. It is estimated that 50 percent of the rainfall infiltrates into the ground and 40 percent is returned to the atmosphere by evapo-transpiration in naturally vegetated and/or forested areas.

Runoff and the Watershed - The water that is not absorbed or returned to the atmosphere becomes surface flow called runoff. Runoff, plus some of the water that has seeped into the ground, works its way downhill, until enough water collects from the network of small rivules to form a stream. The land area that collects the water in the stream is called a water shed. Put another way, a watershed (also called a drainage basin) is the area drained by a given stream.

Development activities change the watershed in various ways. They alter the drainage network. They change the rates of infiltration, evaporation, transpiration and runoff. Activities in one area of the watershed can impact runoff rates in other areas of the same watershed. Many of the changes can cause drainage problems.

Erosion - Erosion by rainfall and stormwater runoff is a process of breaking loose soil particles.

Natural erosion occurs at a slow rate. In contrast, during urban construction vast amounts of soil are moved and exposed so this process is accelerated. As the velocity and volume of stormwater runoff increases, additional soil particles are detached and transported. Water flows
concentrate, creating small channels and rills and eventually gullies of varying widths and depths. As the volume and velocity of runoff increases in unprotected streams, the streambank is eroded and undercut causing the streambank to collapse and the stream to widen. Bridges, culverts, and trees are undercut. Loss of streamside vegetation will reduce cover for aquatic habitat. Loss of shading will increase stream temperature, decrease dissolved oxygen, accelerate algal growth and harm some aquatic species.

Sedimentation - Soil particles transferred by flowing water are referred to, collectively, as sediment. Sediment is one of the greatest single pollutants of stream, lakes, ponds, and reservoirs. Suspended sediment lowers the quality of water for municipal, industrial, recreation and aesthetic uses and increases the cost of treating the water. It screens out sunlight and inhibits healthy growth of aquatic plants and fish. Where currents are strong, sediments scour stream channels of aquatic food material.

Sedimentation is the process in which soil particles carried by stormwater settle out as the rate of flow decreases. Sediment almost always damages the areas where it is deposited. It fills ditches, clog storms sewers, culverts, drains, and streams. Because the flow-carrying capacity of channels is reduced, flooding occurs more frequently. Sediment reduces the storage capacity of reservoirs and fills ponds and lakes. It literally smothers aquatic animals and their eggs, destroying fish and shellfish. The sediment that reaches major waterways blocks navigation channels, fill harbors, and silts estuaries.

Two basic concepts can be used to avoid the stormwater and pollution problems caused by urbanization:

1. Retain increased stormwater runoff on-site; and
2. Control all types of pollutants at the source.

These concepts can be translated into a set of principles or guidelines for the control of stormwater runoff, erosion, sedimentation, and other pollutants. These guidelines may be useful to the city in developing standards which can be incorporated into development reviews and ordinances.

Stormwater Management

1. Limit allowable runoff from development to pre-development rates.
2. Retain stormwater runoff on the site. Design stormwater facilities to provide both water quality and water control benefits.
3. Increase infiltration on-site.

4. Minimize the amount of paved areas over the least permeable soils.

5. Preserve natural vegetation.

6. Preserve and utilize natural drainage features such as depressions, swales and wetlands. Identify and protect streams, creeks, floodplains, and aquifer recharge areas.

7. Prepare master drainage plans for each drainage basin which will undergo development. Where basins overlap jurisdictional boundaries, governments should cooperate on drainage plans. Take into account incremental and cumulative impacts of development on small sites and entire river basins.

8. Require stormwater easements for maintenance purposes on development plans.

9. Assign clear responsibilities for long-term maintenance of drainage facilities.

Erosion and Sediment Control

1. Fit the activity to the topography and soils. Consider natural drainage patterns when determining road and buildings. Avoid steep slopes.

2. Minimize disturbed areas, and the time of exposure. Stage construction activities to minimize the disturbance of vegetative cover.

3. Stabilize disturbed areas immediately.

4. Retain and accommodate runoff. Use conveyance and storage facilities to keep runoff velocities low. Divert runoff from exposed soils, steep slopes and other vulnerable areas.

5. Retain sediment on-site.

6. Do not encroach upon watercourses. Maintain a vegetative buffer between cleared areas and adjacent streams, rivers and lakes.

7. Provide for installation and maintenance of temporary and permanent erosion and sediment control measures.

8. Coordinate temporary sediment facilities with long-term stormwater control facilities and measures.
Other Pollutants

1. Control litter, debris and chemicals.

2. Use of native trees and shrubs may reduce need for fertilizers and pesticides.

3. Regular street repair and sweeping.

4. Proper use and maintenance of catchbasins and drainage collection systems.

Septic Tanks

1. Restrict usage on unsuitable soils.

2. Require adequate land to install parallel and second system for use when the waste assimilative capacity of the soil becomes exhausted.

3. Locate septic systems down gradient from water supply wells so that wastewater flows through the soil away from the well.

4. Direct stormwater runoff pathways away from the septic system drainfield, in order to avoid flooding and related septic system failure.

Relationships With Other Jurisdictions

Given the rapid growth of Fayette County, Peachtree City and Tyrone, it is becoming increasingly evident that a closer working relationship between the city and adjacent jurisdictions is needed. This includes staff, planning commission, and city council/county commission levels. The city should strive for compatible development, zoning, signage, road construction, and even road names with adjacent jurisdictions. In addition, there should be some mechanism in Peachtree City's planning process for continuous interaction with all other municipalities in Fayette County, as well as Coweta County.

Annexation

Wise planning involves looking beyond the city limits. Georgia law provides four methods by which a municipality may annex additional land from unincorporated areas of the county. All four methods are available to Peachtree City. These methods are summarized below:
1. 100 Percent Method

Applicable to municipalities in counties of less than 100,000 population, this method must be initiated by the written and signed application of all owners of the land proposed to be annexed.

2. 60 Percent Method

Applicable to municipalities of more than 200 population, this method requires a petition of not less than 60 percent of the resident voters in the area to be annexed and of the owners of not less than 60 percent of the land area to be annexed.

3. Municipal Initiation Method

Applicable to all municipalities, this method allows a city to annex an area by ordinance, without a petition by anyone. However, a referendum in the area is required, and the area to be annexed must meet certain standards of development set forth in the law.

4. Local Legislation Method

This type of annexation is accomplished by action of the General Assembly. It may be done either with or without a requirement for a referendum.

In particular, that area in Fayette County "land-locked" by Peachtree City and Tyrone should be examined for possible annexation by Peachtree City. This land could give the city additional potential industrial areas, as well as more control over development of adjacent areas already within the corporate limits of Peachtree City.

As the city grows, other areas of the county contiguous to the city should be evaluated for potential costs and benefits relative to potential annexation.
CHAPTER 8

POPULATION AND HOUSING

Analysis of population information covers three general aspects: size, distribution and composition. Size includes past, present and future.

Fayette County was the fastest growing in Georgia between 1970 and 1980. In this ten-year period, the county's population increased by over 155 percent. Peachtree City's population exploded during this period, increasing by 711 percent.

Estimates by Peachtree City place the city's population on July 1, 1984 at 10,086. Based on this figure, expected increase in land devoted to residential uses and a factor for number of people in each dwelling unit based on type of unit, projections for the city's future population were made. These are illustrated in Table 15 for Peachtree City and Fayette County. Traditional methods of projection proved inadequate for this plan, as historic growth is not anticipated to remain at those levels. However, the projected increase between 1980 and 2000 is estimated at almost 500 percent.

Table 15

City and County Population

<table>
<thead>
<tr>
<th></th>
<th>Peachtree City</th>
<th>Fayette County</th>
<th>City as Percent of County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>793</td>
<td>11,364</td>
<td>6</td>
</tr>
<tr>
<td>1980</td>
<td>6,429</td>
<td>29,043</td>
<td>22</td>
</tr>
<tr>
<td>1990</td>
<td>19,568</td>
<td>62,774</td>
<td>31</td>
</tr>
<tr>
<td>1995</td>
<td>29,028</td>
<td>90,745</td>
<td>31</td>
</tr>
<tr>
<td>2000</td>
<td>38,488</td>
<td>118,717</td>
<td>32</td>
</tr>
</tbody>
</table>

Sources: City of Peachtree City; U.S. Department of Commerce, 1980 Census of Population; McIntosh Trail APDC; Georgia Office of Planning and Budget, 1983.

In 1970 the smallest unit of measurement used by the Census Bureau was the Enumeration District (ED). By 1980, the city had broken down from 1 ED into 36 blocks. Obviously, the level of detail in the 1980 Census is much greater. However, since this was the first census in which block information was collected, it will not be until the 1990 census that comparisons at this level can be made. The bulk of the population lies in the mid-section of the city, bisected by S. R. 54.
Most detailed information on population prior to 1980 is at the county level. The 1980 census did show the following breakdowns for Peachtree City by age, sex and race. See Tables 16 and 17.

Table 16

Age and Sex

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>348</td>
<td>313</td>
<td>661</td>
</tr>
<tr>
<td>6-9</td>
<td>291</td>
<td>294</td>
<td>585</td>
</tr>
<tr>
<td>10-15</td>
<td>470</td>
<td>450</td>
<td>920</td>
</tr>
<tr>
<td>16-20</td>
<td>236</td>
<td>190</td>
<td>426</td>
</tr>
<tr>
<td>21-24</td>
<td>110</td>
<td>106</td>
<td>216</td>
</tr>
<tr>
<td>25-29</td>
<td>220</td>
<td>260</td>
<td>480</td>
</tr>
<tr>
<td>30-34</td>
<td>349</td>
<td>463</td>
<td>812</td>
</tr>
<tr>
<td>35-44</td>
<td>647</td>
<td>587</td>
<td>1234</td>
</tr>
<tr>
<td>45-54</td>
<td>290</td>
<td>223</td>
<td>513</td>
</tr>
<tr>
<td>55-59</td>
<td>116</td>
<td>85</td>
<td>201</td>
</tr>
<tr>
<td>60-64</td>
<td>70</td>
<td>108</td>
<td>178</td>
</tr>
<tr>
<td>65+</td>
<td>88</td>
<td>115</td>
<td>203</td>
</tr>
<tr>
<td>Total</td>
<td>3234</td>
<td>3194</td>
<td>6429</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Commerce, 1980 Census of Population and Housing, Summary File Tape 3A.

Table 17

Peachtree City Population by Race, 1980

<table>
<thead>
<tr>
<th>Race</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>6247</td>
<td>97.2</td>
</tr>
<tr>
<td>Black</td>
<td>122</td>
<td>1.9</td>
</tr>
<tr>
<td>Asian and Pacific Island</td>
<td>42</td>
<td>0.6</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>6429</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Sources: U.S. Department of Commerce, 1980 Census of Population and Housing, Summary File Tape 3A.
The 1980 census showed 1889 occupied housing units. Of these, almost 88 percent are owner-occupied. An estimated 5 units, or 0.3 percent of the occupied units, are substandard. Median value of owner units is $67,700. Median rent of renter-occupied units is $296. Vacancy rates in 1980 were 2.7 and 10.7 percent, respectively, for owner and renter occupied units.

Based on anticipated land use activity over the next 15 years, estimates were developed for the number of new units for each of the 4 residential categories. Estimates of existing units, additional units, and totals are summarized in Table 18.

Table 18
Future Housing Development

<table>
<thead>
<tr>
<th></th>
<th>1984</th>
<th>2000</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDSF</td>
<td>444</td>
<td>798</td>
<td>1,242</td>
</tr>
<tr>
<td>MDSF</td>
<td>2,246</td>
<td>4,358</td>
<td>6,604</td>
</tr>
<tr>
<td>MDMF</td>
<td>376</td>
<td>1,624</td>
<td>2,000</td>
</tr>
<tr>
<td>HDMF</td>
<td>408</td>
<td>3,396</td>
<td>3,804</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,474</strong></td>
<td><strong>10,176</strong></td>
<td><strong>13,650</strong></td>
</tr>
</tbody>
</table>


In order to expand housing opportunities to all socio-economic groups as established in Chapter One, the city should promote a true mix of housing types, densities, tenure and other variables. This will enable people of all types to enjoy the maximum flexibility in lifestyles available in a planned community such as Peachtree City.
REFERENCES

1. City of Peachtree City, Georgia
2. Fayette County, Georgia
3. Fayette County Board of Education
4. Federal Emergency Management Agency
5. Georgia Department of Natural Resources, Environmental Protection Division
6. Georgia Department of Transportation
7. Georgia Office of Planning and Budget
8. McIntosh Trail Area Planning and Development Commission
9. Peachtree City Development Corporation
10. Peachtree City Industrial Development Authority
11. University of Georgia
12. United States Department of Agriculture, Soil Conservation Service
13. United States Department of Commerce, Bureau of The Census