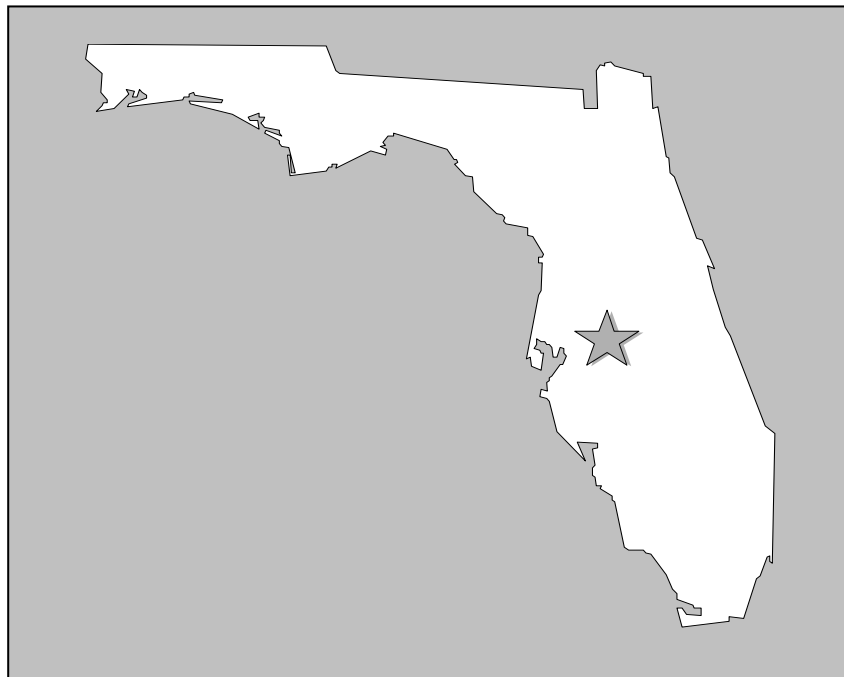


LAKELAND COMPREHENSIVE PLAN 2000 - 2010



**Adopted April 3, 2000
Update Effective July 22, 2010**

LAKELAND COMMUNITY DEVELOPMENT DEPARTMENT

ACKNOWLEDGEMENTS FOR YEAR 2010 PLAN

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Polk County School Board
Polk County Transportation Planning Organization
Southwest Florida Water Management District
State Dept. of Children & Families (formerly HRS)
U.S. Soil Conservation Service

PREFACE

Lakeland has continued to evolve in many ways since 1991 when it adopted its first Comprehensive Plan written to comply with the 1985 Florida legislation entitled the "Local Government Comprehensive Planning and Land Development Regulation Act", also known as the Florida 1985 Growth Management Act. The City adopted Land Development Regulations (LDRs) in 1993 and adopted its first Evaluation and Appraisal Report (EAR) on the Comprehensive Plan in 1998. The City limits stretched westward to County Line Road, south to Pipkin Road and north to Tomkow Road.

Basic tenants of the City government's philosophy have not changed, i.e., that all residents deserve opportunity for decent shelter, jobs and a certain level of quality of life which is enhanced through provision of recreation, highway beautification, lakes management, law enforcement, basic infrastructure services such as roads, water, wastewater, solid waste, and fire protection and an efficient city government. This quality of life will be increasingly pursued at the neighborhood level through the neighborhood improvement and redevelopment program.

As the City approaches the next decade and new millennium, efforts to improve the quality of life in Lakeland draw on its greatest asset: public involvement. The City is a partner in the Metro Lakeland Vision effort, has multiple organized neighborhood associations, many civic organizations, a downtown partnership and redevelopment board, lay boards such as the Historic Preservation Board, an Affordable Housing Committee and Citizens Advisory Committee. Each of these groups involve those who live and/or work in the City participating in efforts to make this a better place to live through short and long range goals.

Around our state we can see many examples of the good and bad qualities that urban life offers. Lakeland need not look far for examples of urban growth to avoid or imitate. The process and rules of urbanization are somewhat universal. Will our Lake Mirror Promenade be compared to Orlando's Lake Eola? Will Florida Avenue one day rival Tampa's Dale Mabry Boulevard? If many communities now changed by growth, were given the opportunity to start again, how differently they would manage growth to improve the attractiveness, vitality and efficiency of their city. Realizing this, these towns and cities have invariably raised their development requirements to a higher standard. The standard Lakeland wants for its future is the subject of this plan.

What standard should the City strive for given the rapid growth and development that all projections indicate is coming to Lakeland and Polk County? What amount of growth can we realistically manage and provide adequate services to support? What are our priorities to be? What are the problems with which we are concerned and what steps will we take to correct the problems and improve our community? The document which follows is a plan for Lakeland to improve the quality of life for existing neighborhoods, businesses and residents as we face continued growth. It is a plan that attempts to recognize the advantages we have now and the ways we can preserve those advantages. It also

recognizes problems in our City from neighborhood blight to inadequate transportation routes.

By law, this plan must also be a very specific technical document utilized to guide the public decisions which occur after its adoption. The plan will direct public decisions which impact the built environment, land use, physical appearance, and the capital improvements budget of the City. Informed citizens know what is attractive and desirable. The plan should help guide residents through the political trade-offs to support those items they clearly want; if they want an attractive urban environment then high development standards must be implemented and must be based in the Comprehensive Plan.

This is a ten year plan but it is not etched in stone. It can be changed up to twice a year, every year through public input and City Commission approval. Given existing regulations, goals, policies and funding limits, in ten years Lakeland should:

- ❖ become more attractive through the continued implementation of locally-desired development standards for new and existing development;
- ❖ become even more effective in strengthening neighborhoods through a well developed process of neighborhood improvement studies and implementation programs; and
- ❖ still be adding to and improving its roadway network and its vast parkland resources including conservation and wetland areas, despite the continued challenge of demand for improvements far exceeding funding available for those efforts.

Lakeland will continue evolving toward being a better City. As the saying goes, “success is a journey, not a destination.” In pursuing community goals, it will become increasingly important to coordinate with all major players which impact and shape our future urban form, including the State and County governments, the School Board and adjacent cities, and private sector investment.

Today there are qualities of Lakeland which stay in visitors minds: brick streets, attractive neighborhoods, peaceful lakes bedecked with swans and waterfowl, preserved 1920's architecture in the downtown and historic districts and lush landscaping. Will those fine qualities be retained or improved in ten years? Will those urban problems which we now recognize like commercial strip development, surface water/lake degradation, homelessness, congested roadways and visual pollution from litter, be reversed or diminished? Will the County and City come to common standards for development, transportation and urban services? The effectiveness of the Lakeland ten year plan will be answered along with these questions. The effectiveness of the Plan will be made real by those City Commissioners, City employees and citizens who will use it to shape our future.

I. INTRODUCTION

PURPOSE OF THE PLAN

The purpose of the Lakeland Comprehensive Plan is to establish and articulate City goals, objectives and policies in regards to growth management and redevelopment. A more ambitious function of the plan is to define the vision the City leaders have for the community for the near and long term.

The development of the City's 2010 plan used the 1991 adopted plan as its base or starting point. Behind the 1991 volume were several technical or support documents created in the late 1980's to research, compile and analyze relevant data. The City's 1998 adopted Evaluation and Appraisal Report (EAR) updated much of the required data for the Comprehensive Plan and analyzed what changes were necessary. Drafting of updated elements or chapters of this plan involved obtaining data from and discussing issues relevant to most of the City's departments. Key requirements of growth management legislation have been retained, e.g., the requirement for "concurrency", i.e. that adequate public facilities be available at the time needed for new growth or expansion.

All new public and private development activity must be consistent with this Plan, including all land use changes and public facility improvements. The Plan is the single document which defines the City's current and future growth management philosophy. All development regulations must be closely related to and consistent with the goals, objectives and policies of this Plan.

BACKGROUND FOR PLANNING

Lakeland's first comprehensive plan was adopted in the 1950's and new plans were produced in 1970 and 1980. The 1980 Comprehensive Plan was prepared under the guidelines of the "Local Government Comprehensive Planning Act of 1975." This legislation was replaced in 1985 by the "Local Government Comprehensive Planning and Land Development Regulation Act" that mandated broad new responsibilities to all local governments and replaced general requirements to adopt plans with very specific and technical requirements. Plans under the 1985 act must closely regulate growth in concurrence with available public facilities and in accordance with mandatory land development regulations to control the physical, environmental, and visual impacts of new development.

The most notable aspect of the law, often called the "teeth" of the act, is the concurrency provision. This is the requirement that all new private development be served with adequate public facilities at the time impacts are generated. Concurrency applies to roads, parks, water, wastewater, drainage and solid waste facilities. The development of a "concurrency management system" based on public facility availability and the denial of building permits due to unavailability are required as a part of plan implementation.

Within a few years of the submission of the comprehensive plan, local governments also were supposed to formulate a unified development code. In 1993, Lakeland adopted unified Land Development Regulations (LDRs) to govern the development and subdivision of land, including concurrency management mechanisms, future land use designations, subdivision controls, wellfield and resource protection, floodplain and stormwater management, traffic, landscaping, signs, open space and other site design considerations.

Each comprehensive plan is reviewed by the Florida Department of Community Affairs. This review is intended to determine if the document meets both the legislative intent of the act and administrative rules enacted by the State. Chapter 9J-5, Florida Administrative Code is the administrative rule which defines the minimum criteria for acceptable plans.

Among the other major requirements contained in the 1985 Growth Management Act and Rule 9J-5, Florida Administrative Code, which lists the minimum content for the elements of the Plan, are requirements that local plans address the problems associated with urban sprawl, be consistent with related plans of regional and state agencies, encourage effective intergovernmental coordination and include Capital Improvement Elements which tie all of the financial requirements of each section of the plan into one document which is consistent with the Five Year Capital Improvements Program of the local government.

Another major requirement is that the Future Land Use Element include a future land use map. The future land use map must designate a future land use for all land within the City and adjacent to its boundaries. Any proposal for development that is not consistent with the adopted future land use map would require an amendment to the adopted comprehensive plan before development approval could be granted.

The time frame for the Lakeland Comprehensive Plan is ten years. Evaluations of the Plan were originally to be required every five years but that has shifted to a longer period which coincides with the time to update the Plan and extend its timeframe to the next ten years (Lakeland's next Evaluation and Appraisal Report must be adopted in 2008, drafted in 2007). Once adopted, the Comprehensive Plan can be revised or amended up to twice per year. At a minimum, the Plan will be revised each year in accordance with revisions to the City of Lakeland Budget and its 5 year Capital Improvements Program.

OVERVIEW PRINCIPLES OF THE PLANNING PROGRAM

Lakeland's 1980 Comprehensive Plan established several principles and programs that substantially affected public policy regarding the City's growth. These were:

- The City will encourage and maintain a Compact/Linear growth pattern based on existing land use and will attempt to strengthen the central City and discourage sprawl in outlying areas.
- The City will approve or deny major development proposals based on the availability of public facilities.

- In the 1980's the City used an aggressive annexation policy to deal with/limit growth related problems near its boundaries; this was an attempt to prevent the City from becoming "the hole in the doughnut," unable to control its destiny.

These three public policy positions played a major role in the regulation of development and the growth of the City over the next decade.

The 1990 and year 2000 Plans also contain a number of overall policy positions or principles which represent methods to guide the development and implementation of the Plan. These principles have been instrumental in guiding the views of citizens, planners and City Commissioners in the development of the entire Plan. The goals, objectives and policies of each element are very supportive of the following principles:

- Lakeland has developed as a traditional central city serving a large population beyond its corporate limits. The characteristics Lakeland offers of a small southern city with a strong sense of place are somewhat unique in Florida and should be preserved through protection of established neighborhoods and enhancement of the built environment with new high quality development.
- The development of secondary high intensity, mixed-use centers within the urban area should be encouraged, where adequate public facilities exist, in accordance with the compact-linear land development pattern and in a manner which supports the development of an effective transportation system.
- The City of Lakeland has a long and enviable history of providing excellent public utilities and services. The levels of service provided by the City, including those services mandated by the Florida Growth Management Act, will not be allowed to significantly deteriorate as a result of the demands of new growth. Growth is positive but sustaining rapid growth requires large amounts of capital. Existing needs will not be overlooked in order to meet the requirements of new growth.
- Lakeland is one of Florida's oldest cities with major sections of the City developed in the 1920's, 1930's and 1940's. Some of these residential and commercial districts are among the most attractive neighborhoods in Polk County; others have suffered significant decline. In order to effectively manage growth and sustain the qualities Lakeland is most appreciated for, the City must maintain the viability of these established areas through reinvestment in public facilities, special improvement programs and other strategies.
- Lakeland citizens consistently support growth and development. However, a major concern is the quality of new development and its direct and indirect cost to the community. Raising development standards for public and private development is the most cost effective community betterment strategy available to local government.

- The City of Lakeland is part of the larger Lakeland Urban Area. Effective management of urban problems which affect Lakeland and the surrounding urban area can only occur through cooperation with Polk County government. Urban sprawl is a key urban problem which is often unattractive and more importantly it leads to an expensive and inefficient development pattern for government to serve. While land economics will continue to drive development toward a sprawling development pattern, the City must work closely with Polk County to discourage this type of development in the Lakeland Urban Area. Through effective intergovernmental coordination, responsive utility strategies and regulatory disincentives the City and County should be successful in discouraging this type of development.
- The five year capital improvement program or budget will allow City departments to clearly define capital needs and aid the City Commission in setting budget priorities. Through the regular use of the Lakeland Comprehensive Plan as the primary development guide for Lakeland and the use of capital budgeting as part of the planning process, the City Administration can implement a meaningful five-year capital improvement program which acts as a primary resource in managing Lakeland's growth and redevelopment.

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TEXT AMENDMENTS TO THE LAKELAND COMPREHENSIVE PLAN: 2000-2010

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-01-003 Ord. #4291	10/15/2001	12/27/2001	<ul style="list-style-type: none"> ▪ Transportation 	<ul style="list-style-type: none"> ▪ All 	<ul style="list-style-type: none"> ▪ Update of entire Transportation Element
T-01-004 Ord. #4292	10/15/2001	12/27/2007	<ul style="list-style-type: none"> ▪ Future Land Use ▪ Infrastructure ▪ Housing ▪ Recreation & Open Space ▪ Conservation ▪ Intergovernmental Coordination ▪ Capital Improvements 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Hazard mitigation issues ▪ Correction of errors ▪ Ensuring internal Plan consistency between elements ▪ Update land use needs projections (Future Land Use) ▪ Policy changes in Future Land Use, Conservation, & Capital Improvements
T-01-017 Ord. #4333	03/18/2002	05/20/2002	<ul style="list-style-type: none"> ▪ Capital Improvements 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Annual update to the Capital Improvements Element and the 5-Year CIP
T-02-009 Ord. #4360	07/01/2002	08/18/2002	<ul style="list-style-type: none"> ▪ Transportation ▪ Conservation 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Update Illustration III-30 and related tables (Transportation) ▪ Correct data in tables in Appendix III-One and Appendix III-Two (Transportation) ▪ Update Policy 4A (Transportation) ▪ Update Illustration VI-2 (Conservation)
T-02-010 Ord. #4399	12/16/2002	01/28/2003	<ul style="list-style-type: none"> ▪ Future Land Use ▪ Infrastructure ▪ Recreation & Open Space ▪ Housing ▪ Intergovernmental Coordination ▪ Capital Improvements 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Changes due to changes in population projections

While an illustration may be listed with the adoption of the amendment, the substance of the illustration may not actually have changed.

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-02-013 Ord. #4400	12/16/2002	01/28/2002	▪ Transportation	▪ GOPs	▪ Change policies to include possible High Speed Rail Station in Lakeland
T-02-014 Ord. #4401	12/16/2002	01/28/2002	▪ Capital Improvements	▪ Various	▪ Annual update to the Capital Improvements Element and the 5-Year CIP
T-03-005 Ord. #4456	07/21/2003	09/15/2003	▪ Future Land Use	▪ Urban Service Availability for Development	▪ Update Future Level of Service analysis
			▪ Transportation	▪ Illustration	▪ Update Illustration III-33
			▪ Infrastructure	▪ GOPs	▪ Update Policy 1.2E
			▪ Intergovernmental Coordination	▪ Various	▪ Update text and policies regarding City of Lakeland interlocal agreement with the Polk County School Board
T-03-011 Ord. #4495	12/15/2003	02/24/2004	▪ Future Land Use	▪ Issues & Opportunities	▪ Update text relating to various development area issues, final residential low densities, and % of non-residential allowed in some areas
T-03-012 Ord. #4496	12/15/2003	02/24/2004	▪ Transportation	▪ GOPs	▪ Change/add policies to address annexed areas petitioning into LAMTD
T-03-013 Ord. #4497	12/15/2003	02/24/2004	▪ Capital Improvements	▪ Various	▪ Annual update to the Capital Improvements Element and the 5-Year CIP
T-03-014 Ord. #4498	12/15/2003	02/24/2004	▪ Recreation & Open Space	▪ Illustration	▪ Update Illustration V-2

While an illustration may be listed with the adoption of the amendment, the substance of the illustration may not actually have changed.

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-04-005 Ord. #4542	06/07/2004	08/26/2004	<ul style="list-style-type: none"> ▪ Intergovernmental Coordination ▪ Future Land Use 	<ul style="list-style-type: none"> ▪ Other Local Comprehensive Plans ▪ Future Land Use Classification System ▪ GOPs 	<ul style="list-style-type: none"> ▪ Add text and Illustration VIII-7 for Certification Area ▪ Add text and policy for Certification Program
T-04-013 Ord. #4589	11/01/2004	12/03/2004	<ul style="list-style-type: none"> ▪ Capital Improvements 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Annual update to the Capital Improvements Element and the 5-Year CIP
T-04-014 Ord. #4590	11/01/2004	12/03/2004	<ul style="list-style-type: none"> ▪ Transportation 	<ul style="list-style-type: none"> ▪ GOPs 	<ul style="list-style-type: none"> ▪ Update related to US 98 CAMP and other issues
T-05-004 Ord. #4673	08/01/2005	10/14/2005	<ul style="list-style-type: none"> ▪ Future Land Use 	<ul style="list-style-type: none"> ▪ Environmental Limitations for Development ▪ GOPs 	<ul style="list-style-type: none"> ▪ Add text and policies for the Green Swamp ACSC
T-05-005 Ord. #4674	08/01/2005	10/14/2005	<ul style="list-style-type: none"> ▪ Intergovernmental Coordination 	<ul style="list-style-type: none"> ▪ Illustration 	<ul style="list-style-type: none"> ▪ Annual update to Certification Area illustration
T-05-009 Ord. #4645	05/16/2005	06/17/2005	<ul style="list-style-type: none"> ▪ Future Land Use ▪ Transportation ▪ Recreation & Open Space ▪ Conservation ▪ Housing 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Update various illustrations ▪ Correct wording errors in past text amendments

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-05-020 Ord. #4696	10/17/2005	11/17/2005	<ul style="list-style-type: none"> ▪ All 	<ul style="list-style-type: none"> ▪ Appendices ▪ GOPs (Transportation) 	<ul style="list-style-type: none"> ▪ Remove most appendices from the Comprehensive Plan and move to Technical Support Document ▪ Create Concurrency Management System appendix in Future Land Use ▪ Amend Policy 4B (Transportation)
T-05-021 Ord. #4697	10/17/2005	11/17/2005	<ul style="list-style-type: none"> ▪ Future Land Use 	<ul style="list-style-type: none"> ▪ Issues & Opportunities 	<ul style="list-style-type: none"> ▪ changes/clarification of residential densities in some areas
T-05-022 Ord. #4698	10/17/2007	11/17/2007	<ul style="list-style-type: none"> ▪ Conservation 	<ul style="list-style-type: none"> ▪ Illustration 	<ul style="list-style-type: none"> ▪ Update Greenbelt illustration
T-05-023 Ord. #4699	10/17/2007	11/17/2007	<ul style="list-style-type: none"> ▪ Capital Improvements 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Annual update to the Capital Improvements Element and the 5-Year CIP
T-06-002 Ord. #4755	05/15/2006	06/15/2006	<ul style="list-style-type: none"> ▪ Transportation 	<ul style="list-style-type: none"> ▪ GOPs 	<ul style="list-style-type: none"> ▪ Change in Policy 4A
T-06-003 Ord. #4763	07/03/2006	09/13/2006	<ul style="list-style-type: none"> ▪ Intergovernmental Coordination 	<ul style="list-style-type: none"> ▪ Illustration 	<ul style="list-style-type: none"> ▪ Annual update to Certification Area illustration
T-06-004 Ord. #4764	07/03/2006	09/13/2006	<ul style="list-style-type: none"> ▪ Future Land Use 	<ul style="list-style-type: none"> ▪ GOPs 	<ul style="list-style-type: none"> ▪ Correction to Policy X12
T-06-012 Ord. #4795	10/16/2006	11/16/2006	<ul style="list-style-type: none"> ▪ Intergovernmental Coordination 	<ul style="list-style-type: none"> ▪ Various 	<ul style="list-style-type: none"> ▪ Add text and Illustration to establish utility planning areas between Lakeland and Auburndale

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-06-013 Ord. #4796	10/16/2006	11/16/2006	▪ Future Land Use	▪ Illustration	▪ Update Illustration II-18
T-06-018 Ord. #4807	10/16/2006	11/16/2006	▪ Intergovernmental Coordination	▪ Illustration	▪ Annual update to Certification Area illustration
T-07-001 Ord. #4894	09/04/2007	10/05/2007	▪ Recreation & Open Space	▪ All	▪ Update of entire Recreation & Open Space Element
T-07-002 Ord. #4895	09/04/2007	10/05/2007	▪ Future Land Use	▪ Appendix II-One ▪ GOPs	▪ Update Concurrency Management System and policies for proportionate fair-share
T-07-005 Ord. #4885	08/06/2007	10/25/2007	▪ Intergovernmental Coordination	▪ Illustration	▪ Annual update to Certification Area illustration
T-07-013 Ord. #4896	09/04/2007	10/05/2007	▪ Conservation	▪ Illustration	▪ Add new Illustration VI-11
T-07-014 Ord. #4897	09/04/2007	10/05/2007	▪ Future Land Use	▪ GOPs	▪ Add new policy 8F
T-07-015 Ord. #4886	08/06/2007	10/25/2007	▪ Future Land Use	▪ GOPs	▪ Revise Green Swamp Policy X11
T-07-018 Ord. #4926	11/19/2007	12/20/2007	▪ Capital Improvements	▪ Text ▪ Tables ▪ Illustration ▪ Appendices	▪ Update text and illustration relating to Public Schools ▪ Annual update to tables and 5-Year Capital Improvements Program

While an illustration may be listed with the adoption of the amendment,
the substance of the illustration may not actually have changed.

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-07-017 Ord. #4929	12/17/2007	03/18/2008	<ul style="list-style-type: none"> Public School Facilities 	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Addition of required Public Schools Facilities Element
T-08-001 Ord. #4990	07/21/2008	09/30/2008	<ul style="list-style-type: none"> Infrastructure Conservation Intergovernmental Coordination Capital Improvements 	<ul style="list-style-type: none"> Potable Water Issues & Opportunities GOPs Water Needs and Resources GOPs GOPs 	<ul style="list-style-type: none"> All changes are part of the mandated Water Plan Update; includes Illustrations IV-1 through IV-5a
T-08-008 Ord. #4973	06/02/2008	07/03/2008	<ul style="list-style-type: none"> Future Land Use 	<ul style="list-style-type: none"> Neighborhood Redevelopment & Improvement Issues & Opportunities GOPs Appendix II-One 	<ul style="list-style-type: none"> Addition of Community Redevelopment Areas section Addition of CRA Map Changes to descriptions in Future Land Use Categories Addition to Policy 7A Changes to various Concurrency Determination sections, and addition of Concurrency Determination – Public Schools section

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-08-009 Ord. #4974	06/02/2008	07/03/2008	<ul style="list-style-type: none"> Recreation and Open Space 	<ul style="list-style-type: none"> Local Standards for Meeting Recreation Demand Issues & Opportunities 	<ul style="list-style-type: none"> Correction to text references to illustrations
T-08-010 Ord. #4975	06/02/2008	07/03/2008	<ul style="list-style-type: none"> Table of Contents Support Section 	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Addition of List of Amendments to the Contents support section of the document
T-08-013 Ord. #4976	06/16/08	08/28/2008	<ul style="list-style-type: none"> Intergovernmental Coordination 	<ul style="list-style-type: none"> Illustration 	<ul style="list-style-type: none"> Annual update to the Certification Area illustration
T-08-023 Ord. #5012	09/15/2008	10/16/2008	<ul style="list-style-type: none"> Future Land Use 	<ul style="list-style-type: none"> Issues & Opportunities 	<ul style="list-style-type: none"> Changes to BP description in Future Land Use Categories
T-08-024 Ord. #4997	07/21/2008	09/30/2008	<ul style="list-style-type: none"> Capital Improvements 	<ul style="list-style-type: none"> Appendix IX-One 	<ul style="list-style-type: none"> Addition of Developer-Funded Transportation Projects to the CIP
T-08-026 Ord. #5044	11/17/2008	01/27/2009	<ul style="list-style-type: none"> Capital Improvements 	<ul style="list-style-type: none"> Introduction Summary of Findings Appendix IX-One (CIP) Appendix IX-Two 	<ul style="list-style-type: none"> Update to the text and tables Update to Illustration IX-One Annual update to the CIP Update to the Programmed Roadway Capacity and Intersection Improvement Phases
T-09-006 Ord. #5091	05/18/2009	06/18/2009	<ul style="list-style-type: none"> Future Land Use 	<ul style="list-style-type: none"> Summary of Findings 	<ul style="list-style-type: none"> Update to Business Park Land Use

While an illustration may be listed with the adoption of the amendment, the substance of the illustration may not actually have changed.

AMENDMENT & ORD #	ADOPTED DATE	EFFECTIVE DATE	ELEMENT(S) AMENDED	SECTION(S) AMENDED	SUMMARY OF CHANGE(S)
T-09-010 Ord. #5092	05/18/2009	06/18/2009	<ul style="list-style-type: none"> Transportation 	<ul style="list-style-type: none"> Summary of Findings GOPs 	<ul style="list-style-type: none"> Updating Functional Classification Section and addition of Citywide Pathways Plan Update GOPs to reflect changes in the Summary of Findings
T-09-011 Ord. #5093	05/18/2009	06/18/2009	<ul style="list-style-type: none"> Future Land Use 	<ul style="list-style-type: none"> GOPs 	<ul style="list-style-type: none"> Add policies regarding employment-related land uses
T-09-005 Ord. #5099	06/15/2009	08/27/2009	<ul style="list-style-type: none"> Intergovernmental Coordination 	<ul style="list-style-type: none"> Illustration 	<ul style="list-style-type: none"> Annual update to Illustration VIII-7 (Certification Area Boundary)
T-09-014 Ord. #5135	11/16/2009	12/17/2009	<ul style="list-style-type: none"> Capital Improvements 	<ul style="list-style-type: none"> Summary of Findings Appendix IX-One (CIP) Appendix IX-Two 	<ul style="list-style-type: none"> Update to tables Annual update to the CIP Update to the Programmed Roadway Capacity and Intersection Improvement Phases
T-10-007 Ord. #5168	06/21/2010	07/22/2010	<ul style="list-style-type: none"> Transportation 	<ul style="list-style-type: none"> GOPs 	<ul style="list-style-type: none"> Revision to Objective 4 to add policy regarding Transportation Concurrency Exception Area

II. FUTURE LAND USE

INTRODUCTION

The Future Land Use Element is possibly the single most important element of the Lakeland Comprehensive Plan. As the fundamental guide for future physical expansion and renewal, the Future Land Use Element coordinates the various recommendations of all the other elements of the plan. Through the integration of these proposals into a future land use map and set of policies, the Future Land Use Element provides a basic means for ensuring plan consistency. When tied to land development regulations, consistent implementation strategies are achieved.

The City's future land use plan is essentially a balanced and integrated set of policies and a future land use map combined to guide decisions regarding the future use of land in the Lakeland Planning Area. These policies are based on considerations of existing land use problems and conditions and draw heavily on practical planning knowledge used every day in making land use decisions. The future land use plan provides a blueprint for the City's preferred area-wide growth and establishes the policies necessary for achieving the preferred growth pattern.

Although the City's land planning jurisdiction encompasses only the city limits, the Future Land Use Element examines the development patterns and potential of the entire planning area. In general, the planning area includes the City, the adjoining unincorporated areas built up in urban uses, and the surrounding vacant land or open country that is provided with one or more utility services by the City. The Lakeland Planning Area boundary was drawn in 1988 as part of a Memorandum of Agreement between Polk County and its municipalities to better coordinate long range planning activities. Examination of the planning area helps determine the future land use role of the City within the larger urban structure. This focus on the City as part of a larger planning area helps establish an area-wide orientation not only for the land use element, but for all other plan elements influenced by land use considerations.

The Future Land Use Element is divided into several major sections. Following this introduction, existing conditions are summarized and an existing land use map is presented. The third section examines issues and opportunities including a discussion of redevelopment of neighborhoods. The fourth section includes goal, objective and policy statements as well as a future land use map. The final section outlines the requirements for the City's Concurrency Management System, found in Appendix II-One.

SUMMARY OF FINDINGS

In late 1989, the Community Development Department completed an existing land use report which described the salient facts and features about the land in the City and the surrounding planning area. The City's Evaluation and Appraisal Report (EAR) included an updated existing land use survey. The land use survey results are graphically displayed on the Existing Land Use Map, Illustration II-1, found in the pocket folder. The 1996 existing land use map (ELUM) for the Lakeland Planning Area covers the following land uses: residential, commercial, industrial, agricultural, lakes/water, recreational, public institutional (includes educational), and vacant land uses, as well as lands adjacent to the City.

Natural features illustrations which are part of the Existing Land Use Map include: soils, flood hazard areas, and minerals, Illustrations II-2, II-3, and II-4, which are enclosed. There are also illustrations for the following: the location of designated conservation or preservation areas, Illustration II-5; wetlands, Illustration II-6; historic districts, Illustration II-7; northwest and northeast wellfield zones of protection, Illustrations II-8 and II-9; and the Green Swamp Area of Critical State Concern, Illustration II-10.

In addition, to the natural resource illustrations there are three illustrations to assist in land use analysis: Dredge Disposal Area (Illustration II-11); Vacant & Agricultural Lands Analysis (Illustration II-12); and Neighborhood Boundaries (Illustration II-13).

DREDGE DISPOSAL

When Lakeland initiated the dredging of Lake Hollingsworth, a dredge disposal site was necessary to dispose of the muck pumped from the lake. The initial dredge disposal site was located east of Cleveland Heights Boulevard, near Peterson Park. The City extended a line to a secondary site located outside City limits to dispose of additional muck from the lake when the site inside the City could no longer accommodate the volume of material pumped. The secondary City site is located east of Lakeland Highlands Road, as shown in illustration II-11.

Two potential future dredge sites focus on dredging/lake clean-up of:

- Lake Parker and an associated canal from Lake Parker into Lake Crago and possibly Lake Bonny; and
- Lake Bonnet and/or downtown lakes such as Lake Morton, Lake Wire and Lake Mirror, all of which are surrounded by urban development.

For the Lake Parker area dredging, the Lakes Management staff identified a potential dredge disposal site, approximately 100 acres, located along the north shore of Lake Parker in what has been known as the Bridgewater DRI but which may be purchased by the Florida Fish and Wildlife Conservation Commission. For dredging of Lake Bonnet and/or downtown lakes, a potential dredge disposal site is located east of Lake Bonnet on property being sought for the "Central City" Park.

The availability of funding sources for future dredging will be the primary determinant of whether or not dredging is possible. The dredging project for Lake Hollingsworth involved an expenditure of millions of dollars. In addition, timing and coordination between the lakes management program and the landowners and/or future users of disposal sites will be crucial to the feasibility of using these sites for dredge disposal. Feasibility for dredge disposal on a given site depends in part upon the time it takes for the muck to dry versus when the site is scheduled to be developed (as a park or other land use). Whether or not the dried muck surface is an appropriate soil surface to develop over in an economical manner is another issue. These issues would need to be resolved prior to final determination of whether lake dredge materials could be deposited upon a given site. Costs for disposal, including the cost of transporting or pumping the muck to a site, is a significant consideration for site selection. In addition, future site selection should be liberal in terms of estimated land area needed for the volume of muck material to be dried at the disposal site. Finally, selection of disposal sites must consider protection of natural resources including the issue of water quality of run-off from the site.

EXISTING LAND USE ANALYSIS

In 1996, the Community Development Department conducted a survey of all lands within the corporate limits and immediately adjacent to the City, as illustrated in this report (see pocket folder, Illustration II-1). Measured acreages were computed with improved accuracy compared to the 1991 Adopted Plan due to use of a computerized Geographic Information System to map the data. The results of the survey for inside the City of Lakeland (only) are found in Table II-1 and Table II-2.

Table II-3 summarizes land uses for the revised Lakeland Planning Area. The boundaries of the Lakeland Planning Area were reduced mostly on the north and east in order to conform with Census geography lines including block group lines.

**TABLE II-1
SUMMARY OF EXISTING LAND USE, 1996
CITY OF LAKELAND**

LAND USE	ACRES	RANGE OF DENSITY OR INTENSITY
Residential, Total	6,976	0 TO 175 UNITS PER ACRE
Residential Low	4,330	0 TO 5 UNITS PER ACRE
Residential Medium	2,103	5 TO 10 UNITS PER ACRE
Residential High	543	12 & MORE UNITS PER ACRE
Commercial	1,550	500 TO 1,200,000 SQ. FT. GLA
Office	291	500 TO 75,000+/- SQ. FT. GLA
Industrial	3,406	1,000 TO 250,000 SQ. FT. GLA
Public Institutional	703	0 TO 40,000 SQ. FT. BLDG/ACRE
Recreation	1,401	SE PI; UP TO 268 ACRES
Agriculture	497	0.007 ACRES PER CAPITA
Vacant	8,161	0.11 ACRES PER CAPITA
Streets/Road ROW	4,095	0.05 ACRES PER CAPITA
Rail Lines/RO	115	0.001 ACRES PER CAPITA
Water	4,350	14% OF TOTAL LAND AREA
TOTAL	31,529	
Note: Estimated City population in 1996: 75,422 per BEBR.		

Source: City of Lakeland, Community Development Dept., Existing Land Use Survey, 1996.

The following table shows the percentage each existing land use category comprises of the total acreage in Lakeland:

**TABLE II-2
PERCENT OF TOTAL BY USE
LAKELAND 1996 EXISTING LAND USE SURVEY**

USE	RL	RM	RH	COM	OFF	IND.	PI	ROS	AG	VAC	RD/ ROW	LAKES
% of Total	14%	7%	2%	5%	1%	11%	2%	4%	2%	25%	13%	14%

Source: City of Lakeland, Community Development Dept., Existing Land Use Survey, 1996.

As discussed in the City's EAR, residential lands together represent 23 percent of the existing land uses in the City and the low to medium densities represent 92% of the residential total. The total City acreage increased by 10 percent since the 1989 survey, primarily as a result of annexation of lands which were targeted for non-residential uses. Thus, while some new residential development has occurred, residential lands as

a category of land use comprise a smaller proportion of the total City land uses. This is likely to change as vacant/undeveloped lands currently zoned as rural conservation become ready for development since a majority of those lands are likely to be developed with residential land uses. Vacant lands remain about the same percentage of total City land while agricultural lands have decreased to only 2% of the total land area, down from 4.8% in 1989. Streets and rights-of-way represent 13% of the total City land area, up from only 6.2% in 1989. However, the increase in streets and rights-of-way may be largely due to today's technology and the corresponding enhanced ability to measure this land use versus what was available in 1989.

**TABLE II-3
SUMMARY OF EXISTING LAND USE, 1996
LAKELAND PLANNING AREA (REVISED BOUNDARIES)**

LAND USE	ACRES	RANGE OF DENSITY OR INTENSITY
Residential, Total	32,995	0 TO 175 UNITS PER ACRE
Residential Low	28,033	0 TO 5 UNITS PER ACRE
Residential Medium	4,409	5 TO 10 UNITS PER ACRE
Residential High	553	12 & MORE UNITS PER ACRE
Commercial	3,098	500 TO 1,200,000 SQ. FT. GLA
Office	338	500 TO 75,000+/- SQ. FT. GLA
Industrial	5,950	1,000 TO 250,000 SQ. FT. GLA
Public Institutional	1,506	0 TO 40,000 SQ. FT. BLDG/ACRE
Recreation	4,425	SEE PI ; UP TO 268 ACRES
Agriculture	18,778	.09 ACRES PER CAPITA
Vacant	23,936	.12 ACRES PER CAPITA
Streets/Road Row	13,055	.06 ACRES PER CAPITA
Rail Lines/Row	560	.003 ACRES PER CAPITA
Water	8,044	7.2 % OF TOTAL LAND AREA
Total	112,684	

Source: City Of Lakeland, Community Development Department, 1997.

This table assumes a rough estimate of Planning Area Population in 1996 of 200,000 persons, based on a 1990 population of the former, larger planning area being 180,000 persons. Note that the Planning Area is inclusive of the City area and therefore includes the acreages of the City and the area outside the corporate limits within the (revised) Lakeland Planning Area boundaries.

The Planning Area boundaries were changed for the 1996 survey and the area was reduced significantly on the north and east and some on the south. The acreage of the Planning Area has decreased by 32,264 acres; thus, over 22% less land area was

surveyed in 1996 than in 1989. Due to the revised boundaries and thus different land area surveyed for the Planning Area, as well as markedly enhanced capabilities to measure acreages, a comparison with 1989 is of limited value. However, a comparison does surprisingly show most categories of land use represent very similar percentages as in the 1989 survey with two main exceptions, that of vacant lands and street/street rights-of-way. Vacant lands decreased from 37 % to 19% and streets/street rights-of-way increased from 4.2% to 11%.

Residential land use is by far the planning area's largest use of land. Over 29% of developed land in the planning area is used for residential purposes. Low density uses comprise about 85% of residential lands while medium density uses comprise about 13%, with the remainder of residential land uses contained in high density developments of twelve or more units per acre.

Retail and service commercial uses account for approximately 3% of developed land within the planning area. As has historically been true, most of the land devoted to such uses can be found in the central business district (CBD), outlying shopping centers, and commercial areas adjacent to Florida Avenue, U.S. 98 and along Memorial Boulevard. Of course, minor retail and service activities are also found to a limited degree within many residential neighborhoods. The Lakeland CBD continues to function as a major commercial and service center for the urban area. Land uses include retail shopping areas, office buildings, and major financial institutions.

Industrial uses occupy approximately 5.3% of developed land within the planning area. Major concentrations of industrial activity exist in industrial corridors in west Lakeland along County Line Road, I-4, U.S. Highway 92 West, George Jenkins Boulevard, areas on Kathleen Road, the area surrounding the Lakeland Municipal Airport, and the eastern portion of the planning area near Bartow Road, Winter Lake Road and Reynolds Road.

Public and semi-public uses account for approximately 1.3% of all developed land within the planning area, with streets, highways and rails consuming an additional 12.1% and recreational facilities consuming about 3.9%.

In addition to urban uses, the Lakeland Planning Area contains substantial acreage in non-urban uses. Approximately 16.7% of all land within the planning area is used for agricultural purposes. An additional 7% is consumed by area lakes and over 21% was found to be vacant, although a significant amount of vacant land has been developed since the survey which would lower that percentage. City staff hopes to have a way to automatically update the land use survey in the future; however, another field survey may be required first.

The Lakeland Planning Area also contains portions of the Green Swamp Area of Critical State Concern, as defined under Chapter 380, Section 5, Florida Statutes. In 1974, Governor Rubin Askew and the Cabinet designated 322,690 acres of the Green Swamp as an Area of Critical State Concern. Approximately two-thirds of the designated area is

in Polk County with approximately 6,985 acres within the Lakeland Planning Area. The area was given this designation to protect its many important resources until land development regulations and rules can offer adequate protection. The designation will be repealed when it is determined that local regulations are functioning at a State-approved level.

VACANT LAND ANALYSIS

As indicated above, vacant lands represent approximately 8,161 acres or over 25% of all lands in Lakeland, and 23,939 acres in the Planning Area (includes the City), about 21% of the Planning Area. A zoning analysis of vacant lands, as shown in Table II-4, indicates that of the total vacant land available at the time of the survey, approximately 58% is in rural conservation zoning districts. Rural conservation districts are “holding zones” where development potential may exist but no specific type of development can be anticipated. The other significant zoning categories for vacant land inside the City are industrial and single family at about 12 and 11 percent each. However, if a portion of the PUD district is assumed to allow residential, say 30%, and a majority of the RC zoning district is used for residential, 60%, the about 53% of all vacant land would actually be expected to be used residentially based upon its zoning.

TABLE II-4
SUM OF VACANT LAND BY ZONE, CITY OF LAKELAND

ZONE	ACREAGE	% OF TOTAL	RANK
Single family	931.6	11.4%	3
Two family	5.8	0.1%	9
Multiple family	332.1	4.1%	5
Mobile home	15.5	0.2%	8
PUD	668.5	8.2%	4
Commercial	301.0	3.7%	6
Office	176.4	2.2%	7
Industrial	961.7	11.8%	2
Rural conservation	4,769.3	58.4%	1
Total vacant acres	8,161.8	100.0%	

Source: City of Lakeland Community Development Dept., 1997

Both service availability and natural resources determine whether vacant lands are developable. Illustration II-12 shows the vacant and agricultural lands, since agricultural lands are often prime for development, and depicts the location of wetlands and lakes as well as designated conservation/preservation areas. While many of the vacant or agricultural land areas are spotted with water and/or isolated wetlands, that does not necessarily mean that all of the land is undevelopable. Wetland size, function and quality are all factors that would need to be considered in terms of development

potential. These factors, in turn, must be resolved at time of review for permits from the water management district and/or State Department of Environmental Protection.

URBAN SERVICE AVAILABILITY FOR DEVELOPMENT

A major consideration when determining the suitability of land for future development is the availability of public facilities and services. An analysis of public facility and service constraints includes an examination of the existing public facilities and services as well as new facilities and services required to support development and the ability of local government to provide, or require others to provide, the needed facilities and services.

Service availability for potential development of vacant lands is discussed at length in the Transportation and Infrastructure elements. There are no level of service deficiencies or significant problems for potable water, wastewater, stormwater, or solid waste services provided by the City of Lakeland. System needs are outlined with cost estimates for the next 5 fiscal years in the Capital Improvements Program. The City's water is provided by the Northwest Wellfield and treated at the T.B. Williams Treatment Plant; the northeast wellfield contains five deep wells but is not scheduled to be in operation until at least the second half of the planning period (i.e. 2005 or later).

Wastewater is treated at the Northside Treatment Plant and the W.C. Dicks (formerly Glendale) Treatment Plant; both treatment facilities were expanded in the late 1990's to increase design capacity sufficient for the next 10 years. Solid waste service is provided by the City for the entire corporate limits. No residential solid waste collection is made by the private sector except for construction debris. Most solid waste is burned at the McIntosh Power Plant Complex (50%), with 25% (mostly yard wastes) being recycled/composted and another 25% sent to the Polk County North Central Landfill located on C.R. 540; the landfill has sufficient capacity through year 2020 and beyond.

Future levels of service (LOS) for the major roadway network in the Lakeland Planning Area have been determined by projecting existing traffic volumes to five, ten and fifteen year periods using a trend method. In addition to projected traffic volumes, anticipated road improvements were used to determine probable future levels of service. The City analyzed level of service both with projected roadway improvements and without such network improvements. As would be expected, the analysis indicated many more network level of service failures if no improvements were funded and implemented. In 2005, with planned roadway improvements funded, it is anticipated that there will be six directional links on the State road system and 7 links on the County roadway system and one link on the City roads that will be below the adopted LOS standard. In 2010, the same number of links is expected to be below the LOS standard if planned improvements are funded (for specific links, see Transportation Element, Traffic Circulation).

ENVIRONMENTAL LIMITATIONS FOR DEVELOPMENT

A careful analysis of land-related environmental conditions is fundamental to the development of a future land use plan. A detailed analysis of the City's natural resources and land development limitations can be found in Conservation Element. The following is a summary of the key considerations for land use:

Soils: Illustration II-2 presents the primary soil associations within the Lakeland Planning Area. The soils with the highest potential for development in the planning area are primarily found along the Lakeland Ridge Area. This elevated topography extends through the center of the City and is bounded on both sides by relatively flat lowlands. The area is predominantly well-drained and supports the majority of the area's citrus crops. Because of its well-drained soils, the ridge is one of the most attractive areas for urban development.

Other areas which have attracted developers include formerly mined areas, reclaimed, and some unreclaimed, after phosphate mining operations. Since the existing soil survey analysis extends only six feet below the surface, additional investigation is needed to determine development suitability of any mined areas.

It should be noted that delineation of soil potential is not meant to define strict limits for development. Low potential soils may be developable but the costs of development will likely be greater than that of soils of moderate or high potential. All developments should include a site-specific soils analysis in preliminary studies in order to determine the unique properties of the soil at the particular site of a proposed development.

Topography: The highest elevations in the Lakeland Planning Area are found along the Lakeland Ridge. This elevated topography extends northwest to southeast through the center of the City. Elevations range from approximately 250 feet above mean sea level in the south central highlands to about 90 feet in the southwestern and southeastern lowlands. The ridge slopes rapidly in the southeastern area, but the change in elevation is more gradual to the west of the ridge and in the northeastern regions of the planning area. The ridge is characterized by sinkhole lakes, typical of limestone topography.

Natural Resources: The greatest natural resource to be considered in any plan for future development is the land. The Lakeland Planning Area includes approximately 112,682 acres ranging from intense urban development to agriculture. The soils are generally well drained with few areas that would completely prohibit development.

The watershed of three Florida rivers begins within the Lakeland Planning Area. The northwest watershed feeds the Hillsborough River that flows through downtown Tampa and into Hillsborough Bay. The southwest watershed feeds the Alafia River that empties into Hillsborough Bay at Gibsonton south of Tampa. The Peace River originates at Saddle Creek in the eastern half of the planning area and flows southward for 105 miles, entering the Gulf of Mexico at Charlotte Harbor.

Lakeland has numerous natural and man-made lakes which are fed by both groundwater sources and stormwater runoff. There are 52 named lakes within the planning area ranging in size from 1.6 acre Lake Blanton to 2,173 acre Lake Parker. Although these lakes are used for boating, water skiing, fishing, and for their scenic amenities, swimming is limited because of pollution.

The Lakeland Planning Area also supports a variety of vegetative communities which provide habitat for diverse plant and animal species. Destruction of these communities has a direct bearing on the survival of many Florida plant and animal species.

Portions of the Green Swamp Area of Critical State Concern (ACSC) are located within the City and the Planning Area (see Illustration II-10). The ACSC was designated by the State of Florida in 1979 as an environmentally resource rich and sensitive area to be given special protection. In fact the Green Swamp is the headwaters for four major rivers and is the location for the potentiometric high for the Floridan Aquifer which in turn serves as a key source of drinking water for much of Central Florida. Thus, most development activity in the ACSC is subject to State review and oversight as are any relevant comprehensive plan policies, zoning actions and so forth. There is a set of "guiding principles" set out by the State in Chapter 380, F.S. which outlines the key issues of state concern. Lakeland Future Land Use Policy 2K lists these guiding principles. As the City limits expanded into the ACSC, chiefly in order to annex lands related to the Williams Community Redevelopment Area, it became necessary to add more policies to address what the City would allow in regard to new or re-development within the ACSC. These policies have been added as a final section to the Future Land Use Element Goals, Objectives and Policies and address issues such as development within wetlands and floodplains, impervious surface limits, open space requirements and prohibited uses.

The only commercially valuable mineral in the Lakeland Planning Area is phosphate. Although no phosphate mining is anticipated in the urbanized areas, some mining activity could occur in the less intensely developed parts of the planning area.

Conservation/Preservation Areas: Illustration II-5 depicts the generalized location of conservation/preservation areas. These areas are primarily sites which are in public ownership for the purpose of preserving their natural state or are of such low development potential due to the presence of wetlands or tendency toward flooding that the only logical use is to conserve or preserve the site in its existing natural state. Much of this land is available for passive recreation activities and is currently part of the Lakeland Greenbelt Concept, a plan to circle the urban area with a publicly-owned conservation/preservation greenbelt. All major lakes or water bodies within the Lakeland Planning Area have also been included within the Conservation/Preservation category.

Archaeological Areas: According to the State of Florida, Division of Historical Resources, a systematic, professional archaeological survey of the City of Lakeland has never been completed. In addition, the Florida Master Site File does not identify any archaeological sites within the City of Lakeland. Because of well-drained ground surrounding many lakes, Lakeland has a moderate to high probability of containing

potentially significant archaeological sites. In 1998, the City hired a private firm to study the incorporated area for potential to contain archaeological resources; a report and maps outlining potential zones for evaluation prior to development were produced in 1999. The report is intended to function as a predictive model for site location by sampling selected areas with high potential for archaeological sites. Once input into the City's Geographic Information System, this predictive model can be used to assist the City in its normal development review process by indicating where investigation of archeological resources is potentially warranted.

Development or Redevelopment of Flood Hazard Areas: Illustration II-3 indicates flood hazard areas within the planning area and Illustration II-6 indicates the generalized location of wetlands, per the National Wetlands Inventory. Development in flood hazard areas is governed by City and County flood hazard ordinances. As participants in the National Flood Insurance Program, both jurisdictions were required to establish general and specific restrictions on development in areas subject to flooding. These restrictions require floodproofing of all development in flood hazard areas and, where base elevations

have been identified, require residential structures to have the first floor at or above the established flood level. Special restrictions are also placed on non-residential and mobile home developments. Although these regulations demand more of developers, they protect the health and safety of persons living in flood hazard areas and prevent unnecessary and costly damage to buildings and facilities. When the 1997 FEMA updated flood hazard maps are released to the City, the flood hazard map illustration in this Plan will be replaced.

The City's land development regulations address natural resource protection including flood protection and stormwater management. A stormwater management plan is required of all new proposed development as well as redevelopment in the City. Pre- and post-development volume matches are required, as is consistency with relevant State and water management district regulations. Lakeland is consistent with all adopted and enforceable water management rules which apply to its jurisdiction (that is, all rules of the South West Florida Water Management District, SWFWMD.) Most developers generally do everything possible to avoid allowing development to occur in a flood hazard area as part of sound development practice and pursuit of cost efficient development. Very little development has occurred in a flood hazard zone in the evaluation period.

Comprehensive Plan Policies in the Infrastructure Element and Conservation Element allow development above the established base flood elevation (a minimum of 1 foot above it), only where such development can not be avoided.

Lakeland's level of service standards for stormwater reference State standards for stormwater quality as per the Infrastructure Element, and Lakeland's land development regulations, Article 34, address floodplain management regulations. Article 34 requires a stormwater management plan for any construction or site alteration (i.e. redevelopment). This is above and beyond the water management district regulations which exempt redevelopment requirements.

Lakeland does not have an acquisition program aimed at flood hazard areas. However, the City has acquired park lands that serve as retention areas. Developers who wish to develop the non-floodplain portions of a site may also dedicate to the City the wetland and/or floodplain portion where the City has an interest in acquiring that land to assist in stormwater management.

Wetlands: Illustration II-6, Wetlands, includes data from the National Wetlands Inventory which accurately defines the type and location of all wetlands within the planning area. The Plan policies regarding floodplain protection are very similar to City policies regarding protection of wetlands. Wetlands are usually at the fringe of the shorelines and floodplains surrounding the City's lakes. Thus, developers are required to avoid wetlands just as they do floodplains, as per the Lakeland Conservation Element policies. In addition, the Community Development Department requires developers to identify wetlands when site plans are submitted or else risk rejection of

the site plan. The site plan must indicate the extent, location and function of the wetlands. The Public Works Department verifies the accuracy of identified wetlands information as part of the overall drainage plan review. The Public Works Department also requires the developer to provide a copy of their application to the Southwest Florida Water Management District along with the site plan. This ensures that the drainage and wetlands plan submitted to SWFWMD is the same as the one submitted to the City.

Geology: The geology of the Lakeland Planning Area is relatively simple. The area is underlain by several porous limestone formations that are overlain with unconsolidated sand and clay material of varying thickness, forming the topography. Two artesian aquifers are found in the limestone formations including the deep Floridan aquifer that is the major source of water for the local area and much of Florida. Two other aquifers are also found in the unconsolidated surficial deposits although neither is a major source of water for domestic or other uses.

Aquifers are vulnerable to improper development. The greatest threat is the possibility, however slight, of groundwater pollution or contamination, especially through the seepage of wastewater. A more common problem is the covering of recharge areas with impervious materials during development. While continued development requires greater withdrawals from the groundwater system, it allows less water to percolate to resupply the system and recharge the aquifer which allows infiltration of poorer water quality. Another geologic consideration for future development in the Lakeland Planning Area is the formation or collapse of sinkholes in the underground limestone terrain. The limestone underlying the area may contain many interconnecting openings, ranging from a fraction of an inch to many feet in size, which are a result of the solutional removal of the limestone by circulating groundwater. Such cavities located in the uppermost limestone of the area may undermine support of surface material, which then collapses, forming a sinkhole. Because of the potential hazard of sinkhole formations, the possibility of subsurface cavities should be investigated in all major load bearing development projects.

ANALYSIS OF HAZARD MITIGATION REPORTS

Lakeland is within Polk County, Florida, which is a designated hurricane shelter host county. The City is not within a coastal high hazard area but includes official hurricane evacuation routes on the Transportation Map Series for the Lakeland 2010 Plan. The City of Lakeland maintains emergency operations or response plans but does not have a hazard mitigation plan. Rule 9J-5.006(3)(b)(6), FAC requires the City to coordinate future land uses by encouraging the elimination or reduction of land uses that are inconsistent with any interagency hazard mitigation report recommendations from the County. The City government is required to determine which, if any, County recommendations are appropriate and relevant for incorporation into its Comprehensive Plan. Polk County adopted a hazard mitigation plan in August 1999 including a recommended list of priority projects; policy recommendations were not included in the report. Lakeland will review the County recommended list of projects or any updates to that list, for relevance to the City. This may or may not entail a revision to the Lakeland

Comprehensive Plan. In addition, Community Development staff will explore ways to integrate the City's review of proposed developments to include additional comments from the emergency management staff.

Lakeland already utilizes several types of tools to prevent or avoid threats to the life and property of its residents and/or its natural resources. These tools include land development regulations regarding floodplains, wetlands, lakes and in historic districts within the City. A new archaeological model, as addressed in this element, should improve identification and protection of that resource in the future. A policy regarding back up power generation inspection and maintenance has been included in the Infrastructure Element for potable water and wastewater. Wellhead protection, fire flows and cross connection control are all addressed in the Infrastructure Element policies in order to ensure protection of the City's drinking water supply and fire pressures. The Conservation Element addresses safe collection of household hazardous wastes and recycling of used motor oil in order to protect the area groundwater resources. These policies and regulations are integrated as part of the City's everyday preventive measures used to minimize potential hazards or threats to property and natural resources.

URBAN SPRAWL ANALYSIS

The City of Lakeland does not encourage urban sprawl either in its Comprehensive Plan or Land Development Regulations. Utility extensions, particularly for wastewater service, are not encouraged beyond the urban development area boundary shown on the Future Land Use Intensity Area map (FLUE). These policies are found in the City's Infrastructure Element. The City is required to review in its EAR and other analyses the potential for urban sprawl as per Rule 9J-5.006(5)(g), F.A.C., which cites thirteen indicators for checking the presence of sprawl. While this check would not be applicable to most development inside the City, it may be appropriate for development of any large land areas on the fringe of the City including areas recently annexed and not primarily surrounded by the City's urban development and services. In fact, the City's adopted EAR (1998) found that most sprawl has occurred outside the City limits within the unincorporated area, especially in the form of low density residential development which utilizes septic tank systems rather than centralized wastewater service.

Two important steps in avoiding urban sprawl are the pursuit of urban redevelopment and urban infill. The City has implemented and will continue to implement a Neighborhood Improvement Program through which neighborhoods designated for redevelopment receive attention through redevelopment planning, neighborhood association formation, community policing stations, streetscapes and recreational enhancements and other public improvements/investments. Infill housing is encouraged by the City through impact fee reductions and affordable housing construction incentives. The City also has lower roadway level of service standards in the downtown redevelopment district in order to encourage infill in that area.

As an urban area, the City of Lakeland is less prone to sprawl due to a limited land area and demand for high intensities that will maximize available supporting infrastructure for development. The availability of Lakeland's centralized wastewater and potable water services, quality community and neighborhood parks, police, fire, libraries, solid waste pick-up and generally good drainage conditions and facilities maintenance attract higher intensity and density development in the central city and urban development area of Lakeland.

POPULATION PROJECTIONS

In early 1988, the City of Lakeland published a detailed technical population study. That study, provided as a comprehensive plan support document, outlined the size, growth, and distribution of the population; characteristics of the population; and, a forecast of the population. Since the City's EAR was not required to include population projections, the 1999 updated projections for Lakeland and the Urban Area are contained in Lakeland Population, A Supplement, 1999, which is found in Appendix II-Two in the Technical Support Document for the 2000-2010 Plan. Any adjustments to those projections will be appended to the Supplement.

In the spring of 2000, the Lakeland City Commission expressed support for the Metro Lakeland Vision document which addressed issues including economic development, racial harmony, education improvements, and enhanced City-County coordination and uniformity in development standards. The vision document included a call for annexation of a large area surrounding the existing City limits. An annexation program was developed to address potential annexations through 2010, although staff and City fiscal resources could stretch the timeframe to a later date. Some of the annexations would require referenda (voter) approvals while others were subject to wastewater-annexation or other agreements and rules. If all of the identified areas were annexed, the City's population could swell to over 120,000 by or before 2010. Urban service reports are required to address anticipated costs and benefits for each annexed area. These reports are reviewed by the City Commission prior to approval to place annexations on the ballot and/or proceed with annexation activities.

Table II-5, following, indicates the low, medium, and high population projections for the City of Lakeland and the Lakeland Planning Area through 2010. Normally, it is the medium projections which are used for general planning purposes. However in late 2000, the City initiated a new, aggressive annexation program in order to reach a population goal of 100,000. Referenda are planned every-other-year 2000-2006. The year 2000 referendum plus other growth resulted in a 2002 city population estimated at 86,656, which was over 8,200 more than the City's Census 2000 population. New population estimates for the planning period are found below and are based upon the continuing referenda planned through 2006. Population-dependent projections in other elements of the plan were also adjusted, including future land use, infrastructure, and recreational needs.

In addition to these general planning projections, Table II-6 outlines the "worst-case scenario" which includes seasonal population at medium population projections assuming

100% occupancy of all tourist facilities throughout the year. It is through use of these projections that the City of Lakeland is able to determine its ability to serve the maximum number of people in the City during the peak season.

**TABLE II-5
CITY OF LAKELAND AND LAKELAND PLANNING AREA
POPULATION PROJECTIONS 2000 - 2010**

YEAR	CITY OF LAKELAND			
	LOW	MEDIUM	HIGH	WITH AGGRESSIVE ANNEXATION
2000	78,676	82,613	86,811	86,656 (2002)
2005	82,689	89,562	100,986	102,018
2010	86,295	96,396	117,475	111,233
YEAR	LAKELAND PLANNING AREA			
	LOW	MEDIUM	HIGH	
2000	222,259	228,329	252,121	
2005	243,461	258,767	297,565	
2010	265,057	278,202	351,200	

Source: Shimberg Center for Affordable Housing, 1996, and City of Lakeland, Community Development Department, 2002.

**TABLE II-6
CITY OF LAKELAND AND LAKELAND PLANNING AREA POPULATION
PROJECTIONS INCLUDING SEASONAL ESTIMATES 2000-2010**

YEAR	CITY OF LAKELAND	PLANNING AREA
2000	96,465	275,836
2005	125,482	306,274
2010	136,816	325,709

Source: City of Lakeland, Community Development Department. 2002.

ACREAGE REQUIRED TO ACCOMMODATE POPULATION PROJECTIONS

Land use has traditionally been perceived as the outcome of the market process and is assumed to function more or less as it has in the recent past. Use of this basic assumption results in the ability to project future land use acreage required by individual land use categories. The projected needs for the City of Lakeland and the Lakeland Planning Area are based on the medium population projections outlined above.

For purposes of clarification, future land use categories do not directly match previously defined and mapped existing land use categories. Future land use categories were devised to provide the City with flexibility in mapping land uses that responded to the intention of the overall future land use concept -- promoting infill development,

discouraging urban sprawl, and maximizing the use of public facilities and services. Table II-7 lists each existing land use category and its corresponding future land use category.

**TABLE II-7
COMPARISON OF EXISTING AND FUTURE LAND USE CATEGORIES**

EXISTING LAND USE CATEGORY	CORRESPONDING FUTURE LAND USE CATEGORY
Residential	Residential High Residential Medium Residential Low
Commercial	Regional Activity Center (RAC) Interchange Activity Center (IAC) Community Activity Center (CAC) Neighborhood Activity Center (NAC) Linear Commercial Corridor (LCC) Convenience Center (CC)
Industrial	Business Park Industrial
Public/Semi-Public	Public Buildings and Grounds and Institutional Uses
Agricultural	None – the FLUM for the City does not include a future designation for agriculture.
Vacant	None - all vacant lands are assigned one of the future land use categories.
Streets/Roads/Right of-Way	None – streets and ROW not assigned a future land use category except in special circumstances for Future Right-of-Way
Rail Lines and Right of-Way	None – except for significant rail facilities like Winston Yard (Industrial)
EXISTING LAND USE CATEGORY	CORRESPONDING FUTURE LAND USE CATEGORY
Recreation	Recreation
Conservation	Conservation Preservation
Water	None

Source: City of Lakeland, Community Development Department 1993.

Acres within each future land use category needed to accommodate the projected population were determined using guidelines relating to each individual use. As would be expected, the land use category requiring the most acreage to support the projected population is residential.

The City and Lakeland Planning Area's future land use needs are projected for a 10 year period, or through 2010 (see Table II-8). The historical per capita figure for acres of a selected land use were largely used as the basis for these land use needs projections. This is primarily consistent with the methodology used in the 1990-2000 plan.

The City figures differ from the last projections in a number of areas. For instance, the projection for Public Institutional is much reduced while a comparative need for

Recreation land use has increased. Recreational lands are designated much more frequently for City parks and facilities than public institutional uses are utilized since the Recreation category is specifically designed for parks. Also, the City allows certain uses considered institutional in many land use categories other than PI; for instance, schools and churches are allowed in most City land use categories. The former land use projections also underestimated the need for Conservation land uses; the need was actually triple what had been projected in the 1990 plan. This was partly due to some Developments of Regional Impact being annexed which had numerous set-aside areas as well as other developments such as Providence Reserve, a housing development, which bought but set aside a large tract of wetlands.

City Business Park land uses have been about double what had formerly been anticipated. As Lakeland and the urban area continues to develop as the key urban job center in Polk County, office employment centers, warehouse distribution and manufacturing uses have increased dramatically. With the completion of the Polk Parkway, a number of land areas became designated for these types of uses. The 2005 and 2010 projections for Business Park and Industrial land uses have reflected these changes as per the historic per capita acreage figure increases.

In regard to the distribution of need for various residential densities as relates to the City's three land use categories, in 1990 the distribution had been estimated as about 20% Residential Low (RL), 65% Residential Medium (RM) and 15% Residential High (RH). The 2010 projections have slightly varied that distribution to reduce RH to about 8% and increased RL to about 25% and RM to about 68% of the projected need. The residential land area of the Planning Area has substantially more low residential densities than was projected in 1990 due to the historic County land use policy of designating low densities near the City limits due to limited availability of County wastewater services. Since many of those areas developed out in low residential densities near the City's edges may be annexed over the next 10 years, this will increase the total acreage needed in that land use category within the corporate limits. Residential High densities have not been demanded as much as originally anticipated either in or outside of the City so the need for that category has been reduced relative to the other categories.

The 2001 projections for the City include the land use needs anticipated for the total Williams Development of Regional Impact. While the developable land areas will be built out over 15 years or more, the anticipated future land use areas had to be mapped in 2001 as part of the DRI process and therefore had to be accounted for in that year's projections. The Williams DRI future land use categories had the largest impacts to the projections for the Recreation, Conservation, Residential Low, Residential Medium, and Interchange Activity Center designations. The total annexation area for Williams (DRI and non-DRI) is expected to add several thousand more acres to the Recreation category by 2005. It was assumed that increased land consumption for projected categories would result in a decrease in the vacant or agriculture categories shown in the most recent existing land use survey.

Based on the assumptions outlined above, Tables II-8 and II-9 represent estimates of the gross acreage required, by future land use category, to accommodate the City and Planning Area population projections including growth due to City annexation. The range of density or intensity for the future land use categories is stated below each category as per the generalized criteria for each land use designation, outlined within the Issues and Opportunities section of this element. The population which would be absorbed in City annexations expected over the planning period will simply shift expected land uses from the County's jurisdiction to the City's. Most of the area annexed will be already developed and have County land use designations, shown within the Lakeland Planning Area. The City's corporate limits lie entirely within the greater Lakeland Planning Area. Thus, where annexed lands are not already developed or where corrections and adjustments to former County land use designations are needed, City future land use "needs" will be absorbed primarily from those projected for the greater Lakeland Planning Area.

**TABLE II-8
CITY OF LAKELAND PROJECTED LAND USE NEEDS BY CATEGORY
2000 THROUGH 2010
(based on medium population projections)**

LAND USE CATEGORY	APPX. ACREAGE REQUIRED FOR PROJECTED POPULATION			
	Total Acres Needed in 2001 (yr. end)	Projected 2005	Projected 2010	10 Year Add
Residential High Approximate Range of Density/Intensity = 12.01 to 75 DU/Acre 15% of Total Designation can be developed as Commercial not to exceed 7,500 SF/GLA/ACRE	1,245	1,384	1,475	230
Residential Medium Approximate Range of Density/Intensity = 5.01 to 12 DU/Acre 5% of Total Designation can be developed as Commercial not to exceed 7,500 SF/GLA/ACRE	10,788	13,322	14,525	3,737
Residential Low Approximate Range of Density/Intensity = 0 to 5 DU/Acre	3,473	4,289	6,389	2,916
Regional Activity Center Approximate Range of Density/Intensity = 500,000 to 1,200,000 SF/GLA 20% of Total Designation can be developed as residential at a Density/Intensity not to exceed 175 DU/Acre	784	968	1,056	272
Interchange Activity Center Approximate Range of Density/Intensity = 250,000 to 1,000,000 SF/GLA	401	495	540	139
Community Activity Center Approximate Range of Density/Intensity = 150,000 to 500,000 SF/GLA	555	722	747	192
Neighborhood Activity Center Approximate Range of Density/Intensity = 20,000 to 150,000 SF/GLA	177	219	238	61
Linear Commercial Corridor Approximate Range of Density/Intensity = 0 to 40,000 SF/GLA	990	1,223	1,333	343
Convenience Center Approximate Range of Density/Intensity = 3,000 to 20,000 SF/GLA	411	508	553	142
Business Park Approximate Range of Density/Intensity = 500,000 to 2,000,000 SF/GLA	4,659	5,953	6,920	2,261
Industrial Approximate Range of Density/Intensity = 0 to 40,000 SF/GLA	2,774	3,426	3,735	961
Public Bldgs./Grounds Approximate Range of Density/Intensity = 0 to 40,000 SF BLDG/ACRE	655	809	882	227
Recreation/Open Space Approximate Rec. Center Density/Intensity = 0 to 20,000 SF BLDG/ACRE	1,006	4,800	6,155	5,149
Conservation Approximate Range of Density/Intensity = 0 to 1 DU/10 ACRES	1,244	1,536	1,675	431
Preservation No development allowed	18	22	24	6
Future Right-of-Way Approximate Range of Density/Intensity = 0 DU/ACRE	0	134	268	268

Source: City of Lakeland, Community Development Department, 2002.

TABLE II-9
LAKELAND PLANNING AREA PROJECTED LAND USE NEEDS BY CATEGORY
2000 THROUGH 2010
(based on medium population projections)

LAND USE CATEGORY	APPX. ACREAGE REQUIRED FOR PROJECTED POPULATION			
	Total Acres Needed in 2000	Projected 2005	Projected 2010	10 Year Add
Residential High Approximate Range of Density/Intensity = 12.01 to 75 DU/Acre 15% of Total Designation can be developed as Commercial not to exceed 7,500 SF/GLA/ACRE	1,345	1,553	1,669	324
Residential Medium Approximate Range of Density/Intensity = 5.01 to 12 DU/Acre 5% of Total Designation can be developed as Commercial not to exceed 7,500 SF/GLA/ACRE	13,700	15,526	16,692	2,992
Residential Low Approximate Range of Density/Intensity = 0 to 5 DU/Acre	18,266	20,701	22,256	3,990
Regional Activity Center Approximate Range of Density/Intensity = 500,000 to 1,200,000 SF/GLA 20% of Total Designation can be developed as residential at a Density/Intensity not to exceed 175 DU/Acre	784	784	784	0
Interchange Activity Center Approximate Range of Density/Intensity = 250,000 to 1,000,000 SF/GLA	525	725	796	271
Community Activity Center Approximate Range of Density/Intensity = 150,000 to 500,000 SF/GLA	685	932	1,002	317
Neighborhood Activity Center Approximate Range of Density/Intensity = 20,000 to 150,000 SF/GLA	228	259	278	50
Linear Commercial Corridor Approximate Range of Density/Intensity = 0 to 40,000 SF/GLA	1,836	1,836	1,836	0
Convenience Center Approximate Range of Density/Intensity = 3,000 to 20,000 SF/GLA	457	518	556	100
Business Park Approximate Range of Density/Intensity = 500,000 to 2,000,000 SF/GLA	6,109	6,924	7,444	1,335
Industrial Approximate Range of Density/Intensity = 0 to 40,000 SF/GLA	2,717	3,079	3,311	593
Public Bldgs./Grounds Approximate Range of Density/Intensity = 0 to 40,000 SF BLDG/ACRE	1,142	1,294	1,391	249
Recreation/Open Space Approximate Rec. Center Density/Intensity = 0 to 20,000 SF BLDG/ACRE	4,567	5,175	5,564	997
Conservation Approximate Range of Density/Intensity = 0 to 1 DU/10 ACRES	1,221	1,384	1,502	281
Preservation No development allowed	50	56	61	11
Future Right-of-Way Approximate Range of Density/Intensity = 0 DU/ACRE	228	228	228	0

Source: City of Lakeland, Community Development Department, 2002.

NEIGHBORHOOD REDEVELOPMENT AND IMPROVEMENT

The City of Lakeland has identified over 35 neighborhoods within the city limits, as depicted in Illustration II-13, Lakeland Neighborhood Boundaries. At least 16 of the identified neighborhoods are targeted for in-depth revitalization activities to stem decline, reduce blight and encourage renewal. In 2000, these neighborhoods were predominantly located in the north, central and east areas of Lakeland and are listed in Table II-10. As the City expands through annexations and development, other neighborhoods may be targeted.

The types of assistance needed vary by neighborhood. Some neighborhoods need guidance to establish a crime watch, a neighborhood association and/or to initiate some type of public improvement like additional street lighting. These efforts fall under what may be termed general neighborhood improvements versus redevelopment. General neighborhood improvements are designed to make minor changes that help prevent decline and improve the general "health" of a neighborhood.

Other neighborhoods require substantial assistance in the form of leadership training, public improvements for parks, streets, sidewalks, landscaping, lighting and perhaps traffic calming, additional police patrol or substations, job training, code enforcement, infill and/or rehabilitated housing and so forth. These substantial multi-faceted efforts are intended to lift a neighborhood out of decline and bring about improvements that encourage new private investments in the area to effect an overall revitalization or "redevelopment" of the area.

As Table II-10 indicates, neighborhoods targeted for some degree of redevelopment efforts as of 2000 display a wide range of demographic characteristics. The statistics for these neighborhoods are from the 1990 Census and should be replaced when and if year 2000 Census data for neighborhood level data becomes available since some of the data is clearly inaccurate/outdated. For instance, due to the historic district designation and substantial rise in property values in the South Lake Morton neighborhood, the high rental rate in cited in 1990 probably is no longer accurate.

As the table indicates, the 1990 population in each neighborhood ranged from just under 1,000 to over 4,000. The other factors listed in the table are some of those which have historically been used as indicators of neighborhood "health" or stability. One of the City's neediest neighborhoods is Paul A. Diggs, with a population of about 3,500 in 1990, this neighborhood also had the highest percentage of high school drop outs over the age of 25 (57%), families living below the poverty level (48%), unemployment, and percent of rental housing (out of all of its occupied housing). By contrast, the Lakeshore neighborhood had much lower percentages for unemployment and poverty and relatively lower percentages for drop-outs and renters. Some neighborhoods are at neither end of the spectrum of need; these neighborhoods such as the Kathleen area, have low vacancies and low unemployment (relative to the other targeted areas) but have high dropout and poverty statistics.

Different profiles for targeted neighborhoods indicate a different set of needs for assistance. Those areas with higher levels of need require a myriad of tools to help initiate redevelopment through the development of specific neighborhood plans and encouraging additional public and private investment. Those with fewer challenges may be able to be assisted with fewer tools, especially if there is an organized neighborhood association or leadership to assist in monitoring and follow-up efforts. Over the next 10 years, the City must explore how best to implement neighborhood redevelopment efforts given limited staff and funding resources available to deal with virtually unlimited needs. Partnerships will be crucial to leveraging resources; this includes using teams or partnerships within the City with other departments like the city police and city public works, and maximizing external partnerships with non-profit corporations and agencies such as the Lakeland Housing Authority and the Keystone Challenge Program.

Community Redevelopment Areas

The City of Lakeland has officially designated three Community Redevelopment Areas or CRAs, to address traditional urban infill and redevelopment objectives. These three areas are shown in Illustration II-13(a) and include the Lakeland Downtown CRA, the Mid-Town CRA and the Dixieland CRA. The first two CRAs are targeted for non-residential and residential urban infill and redevelopment while the Dixieland CRA focuses upon redevelopment of its historical commercial corridor. Each of the three CRAs utilizes an advisory board to provide guidance to staff in implementing the adopted redevelopment plan for each area and utilizes tax increment financing to assist in funding various initiatives. Polk County also has approved an impact fee exemption area for a portion of the CRAs and the City's historic districts in order to allow for economic incentives for redevelopment in this area referred to as the "Core Improvement Area" and shown on Illustration II-13(a). Traditional CRAs typically involve efforts of a public-private partnership that seeks to enhance property values and quality of life in the areas utilizing tools such as urban design, façade improvements, investment in enhancing public spaces (streets, parks, drainage, transit etc.) as well as the promotion of the principles of interconnectivity of the transportation system, appropriate mixed uses, and diverse housing types and incomes.

The City of Lakeland also has within its corporate limits two, single purpose, non-traditional CRAs that were established to address transportation blight. One of these two is the Harden-Parkway CRA, a Polk County governed CRA to address multi-modal transportation improvements as relates to a portion of the Oakbridge DRI. The other single purpose CRA is the Williams I-4 Interchange CRA which utilizes an Interlocal agreement with Polk County to effectuate annexation of the lands designated within an "ultimate" CRA boundary. The Williams CRA was established to address funding needs for a proposed new interchange on Interstate 4 east of S.R. 33 as well as new feeder roadways to that would connect to the new interchange.

**TABLE II-10
TARGET NEIGHBORHOOD DATA**

NEIGHBORHOOD	ESTIMATED POPULATION	VACANT RESIDENCES	DROP-OUTS AGE 25+	% RENTER	% FAMILIES IN POVERTY	UNEMPLOYMENT
Central Avenue ¹	3,230	21%	38%	54%	24%	12%
Crystal Lake	4,228	5%	21%	40%	5%	7%
E. Lake Morton	1,095	14%	31%	85%	16%	8%
Granada	1,642	17%	39%	28%	10%	11%
Kathleen	2,060	8%	44%	38%	31%	9%
Lake Bonnet	946	15%	33%	42%	29%	7%
Lake Bonny	3,224	21%	26%	40%	9%	4%
Lakeshore	1,534	12%	32%	37%	8%	5%
North Dixieland	834	10%	16%	77%	20%	5%
North Lake Wire	1,212	21%	53%	56%	19%	17%
Parker Street	2,082	16%	50%	84%	23%	12%
Paul A. Diggs	3,518	12%	57%	51%	48%	21%
Seventh Street ²	1,051	14%	47%	48%	16%	5%
South Dixieland	1,449	15%	33%	50%	15%	7%
South Lake Morton	3,323	12%	21%	73%	7%	7%
Webster	2,415	10%	45%	42%	26%	10%

SOURCE: **1990** Census Data.

NOTES: ¹ The City has redefined what was referred to as the Central Avenue neighborhood; this area is comprised of Westgate, Lake Beulah, Central Avenue, and Lake Hunter Terrace.

² Was part of the Kathleen neighborhood in 1990.

Illustration II-2
Soils

T-01-004
Ordinance #4292
Effective 12/27/2001

**Illustration II-3
100-Year Flood Zones**

T-01-004
Ordinance #4292
Effective 12/27/2001

**Illustration II-4
Minerals**

T-05-009
Ordinance #4645
Effective 06/17/2005

**Illustration II-5
Conservation/Preservation Areas**

T-05-009
Ordinance #4645
Effective 06/17/2005

Illustration II-6 Wetlands

T-05-009
Ordinance #4645
Effective 06/17/2005

**Illustration II-7
Historic Districts**

Illustration II-8
Northwest Wellfield Zones of Protection

Illustration II-9
Northeast Wellfield Zones of Protection

T-01-004
Ordinance #4292
Effective 12/27/2001

Illustration II-10
Green Swamp Area of Critical State Concern

T-01-004
Ordinance #4292
Effective 12/27/2001

**Illustration II-11
Dredge Disposal Area**

T-01-004
Ordinance #4292
Effective 12/27/2001

Illustration II-12
Vacant and Agricultural Lands Analysis

T-01-004
Ordinance #4292
Effective 12/27/2001

Illustration II-13
Neighborhood Boundaries

Illustration II-13a
Central City Community Redevelopment Areas

ISSUES AND OPPORTUNITIES

The land use planning program is conceived as a series of activities organized to bring about a built environment that corresponds as closely as possible with the wants and needs of the City. The program should include a land design aspect, which defines the desired built environment, and a guidance system aspect, which defines the means by which the desired built environment can be attained. The Future Land Use Map is the single most tangible design guide that illustrates the desired built environment. The guidance system is made up of the land development regulations (zoning, subdivision, and various other ordinances) which the City codified in 1993 into its Land Development Regulations. The following is a list of key principles of the City's land use planning program:

1. Promote the development of a compact and coordinated land use plan which maximizes efficiency in the provision of public facilities and services and enhances Lakeland's traditional Compact/Linear Development Pattern;
2. Alleviate traffic congestion and/or improve multi-modal access within the urban core;
3. Promote centralized shopping and working areas to allow for more convenient travel patterns;
4. Recognize the need to protect and enhance valuable open space areas and to protect environmentally sensitive areas;
5. Maintain the viability of older commercial and residential neighborhoods and encourage strategies that result in new investment and redevelopment of these areas including infill development;
6. Enhance community attractiveness through the continued enforcement and/or strengthening of public appearance related ordinances regarding commercial signs, landscape requirements, minimum housing standards, beautification of public rights-of-way and publicly owned lands; and
7. Coordinate future land use with other elements of the Lakeland Comprehensive Plan and the plans of adjacent local governments on an on-going basis.

Giving close consideration to each of these principles will help to assure the development of a future land use plan that responds to the needs and desires of Lakeland's residents and visitors.

EFFICIENT PROVISION OF PUBLIC FACILITIES AND SERVICES

Development of a land use plan provides the City with a unique opportunity to determine the shape and character of its future built environment. A primary fiscal concern in making future plans is the efficient provision of public facilities and services. By determining where, and to what extent, future development will occur, the City is in a better position to determine public facility and service needs.

Promotion of compact and contiguous land use patterns is a key element in controlling the cost and maximizing the effectiveness of public facilities and services. Historically, the City of Lakeland has supported a Compact/Linear development pattern through the use of zoning, public investments, encouraging downtown reinvestment and neighborhood infill, and opposition to inappropriate development proposals in suburban or rural areas where services and facilities were inadequate. During the 2000-2010 planning period, the City will continue to act in this manner and deliberately encourage a compact urban development pattern as opposed to a linear, leap frog, or sprawling development pattern. This does not mean the City will not annex or grow; growth is a fact of life in Florida. However, how growth occurs, under what development standards and whether it is adequately served with public facilities and urban services makes a significant difference.

TRAFFIC CIRCULATION AND TRAVEL PATTERNS

As is true in virtually every urbanized area, increased development tends to decrease the efficiency of the traffic circulation system. Transportation systems for the movement of people and goods should be consciously designed to support a desired urban form rather than to unconsciously create new and inefficient development patterns. The City of Lakeland prepared an extensive analysis of its existing traffic circulation system in the Transportation Element.

In Lakeland, new developments are required to pay impact fees to offset calculated impacts on the transportation system. The City also has a transportation planning program that addresses improvements to the existing system and to accommodate future needs. As with most public facilities, land use planning plays a major role in assuring maximum efficiency of operation. Future land use plans must address not only adequacy of transportation facilities but also establish patterns that reduce the overall load on the transportation network in terms of total number of trips and average length of trips. Patterns which encourage short distance trips, a high level of internal capture, and allow or encourage non-automotive or multi-modal travel (transit, pedestrian, car pooling, etc.) will be favored over land use proposals which encourage longer trips with little opportunity for alternative modes of transportation. Leap frog and strip development patterns as well as other patterns which create urban sprawl are detrimental to the road system and will be discouraged.

PROTECTION AND ENHANCEMENT OF OPEN SPACE AND ENVIRONMENTALLY SENSITIVE AREAS

Greenbelt: To the north, east and south of Lakeland city limits there are thousands of acres of land in public ownership. These tracts include parts of the Green Swamp, Tenoroc State Preserve, Saddle Creek Park, an Audubon preserve, the Lakeland effluent wetlands, and a Polk County regional park site (also see the discussion and related illustration in the Conservation Element regarding the Greenbelt for the Lakeland Planning Area). Other sites have also been purchased or have been subject to application for purchase through the Florida Preservation 2000/Florida Forever program. The location of these open spaces relative to one another forms an alignment which lends itself to the logical establishment of a continuous, unbroken greenbelt approximately 33 miles long. The missing links needed to complete a greenbelt are generally of low development potential, often consisting of floodplains, wetlands and/or unreclaimed mined lands and pits. (See Greenbelt Illustration VI-13 in the Conservation Element.)

There are immediate and long-range benefits to be derived from setting aside a corridor of open space within the urban area of Lakeland. There are recreational benefits for the public, protection of vegetative and wildlife habitats, water recharge and flood control. Natural reserves near urban areas are highly desirable as residential neighbors and increase the value of adjacent properties through the protection offered from encroachment by incompatible land uses as well as the value of an adjacent environmental amenity. As the urban area expands, a greenbelt would serve as an urban buffer zone offering a physical break from an unbroken development pattern as well as clear delineation of separate urban areas and utility service areas (although this may be altered somewhat by a potential for a large annexation located east of Lakeland, the greenbelt would still offer that physical break and natural resource protection).

The City of Lakeland has taken several steps to help implement the protection of a greenbelt including incorporating the proposal into this Plan and issuing letters of support for proposals to fund public acquisitions of additional portions of the greenbelt. The City can continue to explore land trades and locating land intensive uses such as a water wellfield within the greenbelt corridor and coordinating with the Central Florida Regional Planning Council for preservation of this and the overall Saddle Creek and Peace River corridors.

Lake-To-Lake Greenway: Another open space strategy is internal to the City, i.e. to continue implementation of the Lake-to-Lake Greenway system fully designed and approximately 80% developed. This system includes active and scenic greenbelt parks circling various City lakes and interconnecting to the proposed Fort Fraser Trail leading south along US 98/CSX railroad to the Bartow area, and north around Lake Parker through Teneroc to the Van Fleet Trail in the Green Swamp. The Lake-to-Lake Greenway System is also described and illustrated in the Recreation and Transportation Elements of this Plan. (See City of Lakeland Greenway Network, Illustration V-2, in the Recreation & Open Space Element.)

The lakefronts are entirely public around Lakes Beulah, Mirror, Morton, Hunter, and Wire and mostly public around Lakes Hollingsworth and Parker. The City has pursued a strategy to maintain the lakeshores around all lakes as a vegetative buffer to serve both environmental and aesthetic objectives. The City will continue to discourage development in close proximity to lakefronts by requiring special setbacks, and encouraging public ownership.

Protection of sensitive environmental areas is most effectively carried out through public ownership, however, financial constraints limit this option. Existing requirements of the City as well as those of State and Federal Agencies have established the criteria for protection of sensitive lands. Specific resources are discussed within this element under Environmentally Constrained Lands and Development Control Zones.

NEED FOR REINVESTMENT IN OLDER NEIGHBORHOODS AND ENHANCING COMMUNITY CHARACTER

Lakeland is one of Florida's oldest cities with major sections of the City having been developed over seventy years ago. Some of these areas are among the most attractive neighborhoods in Polk County; others have suffered significant decline. Some areas which have developed more recently, between fifty and thirty years ago, show signs of blight and deterioration. In order to effectively manage growth and sustain the qualities for which Lakeland is most appreciated, the City must maintain the viability of these established areas through reinvestment in public facilities, special improvement programs and other strategies.

The land use plan and subsequent review of land development regulations take into consideration the need to maintain the attractiveness and viability of all Lakeland's neighborhoods. There is a particular need for a city as mature as Lakeland to pay special attention to the condition of its housing stock and commercial buildings and the broader problem of neighborhood decline and urban blight.

Lakeland neighborhoods tend to have the following similar attributes:

1. The predominant land use in each neighborhood is single-family detached dwelling units.
2. Neighborhoods within the City are served by the Lakeland Area Mass Transit District "Citrus Connection" bus system.
3. Most identified neighborhoods have some form of commercial development within their boundaries. Most of this neighborhood commercial is small scale convenience shopping, florists, dry cleaners, offices and similar neighborhood commercial. For the most part, the uses in existence are consistent with the uses that are allowed as neighborhood commercial. Proposed neighborhood commercial uses would include "mom and pop" grocers, dry cleaners, barber shops, small gift shops, florists, offices, and similar uses.

4. Most of the City's neighborhoods developed in a traditional layout of a grid street pattern with alleys, many tree lined, and most with sidewalks.

The above similarities indicate that most Lakeland neighborhoods were originally developed as "traditional neighborhoods," integrating residential uses with small scale commercial giving each neighborhood a distinct sense of place. As a result of this observation, a return to traditional neighborhood planning appeared to be the most logical route to enhancement, redevelopment, and preservation. In order to facilitate this approach, specific guidelines and standards have been developed for commercial activity occurring in medium and high density residential land use designations. Limited commercial activity in residential areas is very important to traditional neighborhood planning. There is a reduction of trips on the overall transportation network because many convenience needs are provided within the neighborhood, often within walking distance. There is also a distinct sense of place created through the integration of residential and appropriate neighborhood commercial activities. The key to Lakeland's successful return to traditional neighborhood planning will depend largely upon consistent application of zoning controls for neighborhood commercial activities.

Initial redevelopment efforts downtown and in various neighborhoods have been successful and, as a result, problems of urban blight are more manageable than in many cities. Public improvements by the City have not only enhanced depressed areas of the neighborhoods, but have also been an encouragement to the private sector to begin investing time and money in these areas.

Effective components of Lakeland's redevelopment program have included the work of:

- the Downtown Redevelopment Authority;
- redevelopment plans for public facility improvements such as buildings, parks, street lights, sidewalk and roadway improvements;
- code enforcement to reduce blight and maintain property values;
- zoning conformance and special public interest district overlay zoning to recognize special land uses such as garage apartments and secondary single family dwellings, and exceptions to the minimum setback or other development standards in the City's older districts;
- designation of historic districts;
- designation of other redevelopment districts;
- implementation of neighborhood housing redevelopment and rehabilitation strategies and coordination with the Lakeland Public Housing Authority;
- local law enforcement strategies including establishing Community Oriented Police Substations (COPs) in neighborhoods;
- leadership training for neighborhood association members and others taking a key role in the community, and

- traffic calming strategies to reduce traffic speeds in residential areas.

In addition to specific efforts, the City must utilize its police powers to enforce minimum standards not only on new development but on existing properties as well. This effort should generally be made City-wide and includes public appearance related ordinances regarding billboards, commercial signs, landscape requirements, and minimum maintenance standards for commercial buildings. Future efforts must be made consistent with the Future Land Use Map and Future Land Use Element policies of the Lakeland Comprehensive Plan. Successful neighborhood enhancement and preservation is contingent upon several things. Perhaps one of the most important is determining what a neighborhood should consist of and implementing land development regulations to ensure appropriate controls.

ENHANCEMENT OF COMMUNITY APPEARANCE

The City of Lakeland adopted a unified set of development regulations in 1993 entitled the Lakeland Land Development Regulations. This included existing and newly created regulations regarding zoning, signage, landscape requirements, open space and other issues. The City also has a lay board to oversee protection of the historic resources, including seven historic districts plus selected sites on the National Register of Historic Places, including the buildings designed by Frank Lloyd Wright on the campus of Florida Southern College (Illustration II-16). The City has made significant efforts to enhance and beautify roadways leading into the City with new landscaping and city limit signs at all entrances to the City. The City vigorously defended its right to control and limit billboards within the City limits. Finally, Lakeland continually pursues enhanced neighborhoods and property values through neighborhood clean-up efforts, paint-your-heart-out type programs and the City code enforcement program. All these efforts work to enhance the “sense of place” and quality of life found in Lakeland and go hand in hand with the overall efforts of this Plan to limit strip commercial development, preserve open space and redevelop and revitalize the downtown and various residential neighborhoods in Lakeland.

COORDINATION OF FUTURE LAND USE ELEMENT AND MAP WITH OTHER PLAN ELEMENTS

The Future Land Use Element provides the physical orientation of the entire plan. As such there is the potential to institutionalize the policies and initiatives discussed in several of the other elements within the Land Use Element and to illustrate these on the Future Land Use Map.

Some of these initiatives can be easily illustrated or supported within the map (park land set aside for future use) while others are more difficult to physically represent (redevelopment strategies). At a minimum, however, the Future Land Use Element must be internally consistent with policies contained in the other elements.

The future land use classification system, i.e. the land use categories outlined below, is a key instrument in the implementation of other goals and policies found in other elements of the Plan. Defining an advantageous land use pattern which supports efficient use of transportation facilities and other public infrastructure was discussed in both the Transportation and Infrastructure Elements and is supported throughout the Future Land Use Element including through use of “activity centers” which encourages most types of non-residential development at nodal points where two roadways intersect rather than a continuous strip of development along the roadway. The Future Land Use Classification System was formulated by first determining the future land use intensity overlay areas of the Central City Area, Urban Development Area, Suburban Development Area and the Rural Area in or surrounding the City. Then a range of specific land use categories were developed, some of which are appropriate only in certain land use intensity areas.

Consistency with the Recreation and Open Space Element and Conservation Element is also accomplished primarily through the use of the Classification System. Some aspects of the future recreation system are represented on the Future Land Use Map. Similarly, lands which are environmentally sensitive are appropriately shown as Conservation, Preservation, or low intensity land use categories. The City's land development regulations also offer natural resource protection such as for wetlands, floodplains, vegetation and lakeshores since not all resources are most appropriately protected by a land use designation. In fact, some resources can not be adequately surveyed or jurisdictional status can not be determined at the time of a land use amendment; such detailed investigation normally occurs at the time of a preparation for a specific development proposal or site plan.

The major initiatives contained within the housing element are not specifically illustrated but are supported through issues five and six listed on the first page of this section. Preservation of existing housing stock and maintaining the viability of older neighborhoods is a major objective of both the Housing and Future Land Use Elements. Consideration must also be given to coordinating and supporting the plans of adjacent local governments. This is accomplished through use of what is mostly a common Future Land Use Classification System as well as following specific objectives and policies to review and maintain consistency with the plans of nearby jurisdictions. This topic is specifically addressed in the Intergovernmental Coordination Element as well.

FACTORS CONSIDERED IN DEVELOPMENT OF FUTURE LAND USE CLASSIFICATION SYSTEM

As previously mentioned, four key factors were evaluated to determine the boundaries of the Future Land Use Intensity Overlay Areas and subsequently to prepare the Future Land Use Map. These factors were: existing land use trends, environmental constraints, availability of public facilities and the desired future land use pattern. The first three of these were discussed in the Summary of Findings section of this element as well as in related elements of this Comprehensive Plan. The fourth factor, the desired land use pattern, is considered within the issues highlighted in this section of the element. Applying the information included in the Summary of Findings section to the issues and

objectives, numerous conclusions were reached which are reflected on the Future Land Use Map. Some, like current or future utility service areas are quite obvious; others requiring explanation are discussed below.

Environmentally Constrained Lands: There are a number of environmental constraints within the Lakeland Planning Area. Rivers, lakes, wetlands, floodplains and unreclaimed mined lands are among the environmental conditions shown on a series of future land use maps. Land which contains one or more of such environmental constraints can not usually be developed without first taking steps to overcome or mitigate the individual constraints, unless such constraints are simply avoided through clustering development on the site in such a way as to avoid the constrained portions of the site. See Illustration II-14 for a map of the Environmentally Constrained Lands for the Lakeland Area.

Lakes and Rivers: Lakes in the Lakeland area have been mapped from aerial photographs and in some cases field checked to verify that what appears to be a water area is not merely a flooded marsh. Mapped lakes consist of naturally formed water bodies, constructed lakes, and phosphate pits within reclaimed mined lands. Though lakes and rivers are not generally considered to have development potential, buildings are occasionally constructed on pilings over water. Roads, bridges and piers are frequently built over water areas as well. Lakes and rivers can also spill over onto adjacent low lying lands and cause flooding. For these reasons, lakes and rivers are mapped as environmental constraints to development.

Floodplains: The 100-year frequency flood is the standard used for designing buildings, roads and other infrastructure. The 100-year flood zone is defined as the area covered by the highest rainfall amount expected to occur on an average of once in one hundred years. This does not mean that the rainfall would occur every 100 years, but would average that occurrence over a long period of time. The flood boundaries are drawn on a set of maps called Flood Insurance Rate Maps (FIRM) produced by the Federal Emergency Management Agency for property insurance purposes. The FIRM maps have been used to delineate flood hazard areas in the Lakeland area. When construction occurs inside the 100-year flood hazard zone, base floor elevations for most structures must be above the flood crest level in order to be eligible for insurance. Also, most road surfaces must be built above the anticipated flood level. Since many lakeshore areas are both flood zones and desirable residential sites, there has been extensive residential development in flood hazard areas. The area of the 100-year flood potential is considered a development constraint because of the special requirements relative to floor elevations, septic tanks and sewer systems, and road design.

Wetlands: The wetland impact area on the Environmental Development Constraints map is the generalized area where there is a high occurrence of State jurisdictional wetlands. These areas were identified from the National

Wetlands Inventory. The Wetlands Inventory identifies two distinct wetland categories in the Lakeland area. The lacustrine category includes those features with principally surface water characteristics. These are either lakes with open water, or aquatic beds which exhibit characteristics of being a former lake. The palustrine category includes typical wetlands associated with land forms. In the Lakeland area these include forested swamps, bushy wetlands which are seasonally flooded, and grassy marshes. The Florida Department of Environmental Protection (FDEP) has legal jurisdiction over most wetlands in Florida (in addition to federal jurisdiction through the Army Corps of Engineers). The FDEP may allow wetland development dependent upon an agreement to mitigate or compensate wetland destruction. This procedure is controlled by State Statute and requires a permit from the FDEP or its designated agent, such as the water management district.

Areas of Critical State Concern: Under Chapter 380, Section 5, Florida Statutes, a geographical area with special environmental, historical, archaeological, and other significance of state or regional importance can seek protection through designation as an Area of Critical State Concern. In 1974, Governor Reubin Askew and the Cabinet designated 322,690 acres of the Green Swamp as an Area of Critical State Concern. Approximately two-thirds of the designated area is in Polk County with 19,520 acres within the Lakeland Planning Area.

The Green Swamp is considered by many scientists to be one of the most important hydrologic resources of Florida, forming the headwaters of the Hillsborough, Oklawaha, Peace, and Withlacoochee Rivers. Large portions are also believed to be prime recharge areas for the Floridan Aquifer which underlies much of Florida, providing an estimated eighty-six percent of the State's drinking water.

The Green Swamp also provides valuable habitat for many of Florida's wildlife species through its combination of uplands and wetlands. The Florida Trail Association has established a trail through the length of the swamp providing opportunities for nature study and birdwatching. Fresh water fishing is allowed year round and hunting is allowed by permit during certain times of the year.

The Green Swamp was given its Area of Critical State Concern designation to protect its many important resources until local land development regulations and rules could offer adequate protection. The designation is temporary and will be repealed when it is determined that local regulations are functioning at a State-approved level.

Unreclaimed Mined Lands: Unreclaimed mined land is considered a development constraint because of the land's radical contours, precipitous

pits, or the presence of clay slimes. Most of these lands in the Lakeland Planning Area were mined prior to the State's mandatory reclamation requirements and have become naturally revegetated.

Several previously mined lands have been reclaimed in the Lakeland area. The most recent is the Oakbridge development in southwest Lakeland where slime areas and mixed unconsolidated soils were removed or altered to create a stable building topography. The final land form is well drained with a few small lakes and ponds interspersed as part of the drainage system. Since mined land is known to have elevated radon gas emissions, construction techniques are being incorporated at these sites which prevent gas buildup inside buildings.

North of Lake Parker is a vast reclaimed mined area of approximately eight square miles. It is generally vacant land with many serpentine lakes contoured to accommodate development. Another type of mined land reclamation is evidenced at Saddle Creek Park which has retained mostly water area interspersed with a variety of land contours for recreation purposes.

Even with reclamation procedures, mined lands present several constraints to development. Based upon local experience, development constraints include unstable soils, the presence of radon gas, and disturbed natural systems such as drainage and groundwater aquifers.

When the described environmental constraints are mapped together, a pattern emerges which shows why Lakeland has developed linearly north and south along the upland Lakeland ridge. The importance in describing this development pattern lies in the movement of development activity from the ridge outward into environmentally constrained areas. As the remaining upland areas in the Highlands and North Lakeland become further built-out, development activity will naturally move toward adjacent lands to the east and west where it will encounter conditions requiring pre-development environmental mitigation measures.

Development Control Zones: The City of Lakeland, as part of the future land use map series, has identified and mapped most Development Control Zones. Illustration II-15 outlines the City of Lakeland Development Control Zones. These zones comprise a group of areas which, due to some natural or man-made characteristic, are subject to special attention relative to development procedures. Identified Development Control Zones are 1) the airport clear zone (shown on airport layout maps in the Transportation Element only), 2) areas of potentially high groundwater aquifer recharge, 3) the urban area greenbelt, 4) seven historic districts and the Florida Southern College campus, and 5) zones of protection for two public water supply wellfields. Information on each area follows.

Airport Clear Zone: Airspace around the airport must be controlled for the safety of people involved in aircraft operations and also to minimize interference with the use of land and development below the active airspace. Airspace dimensions are closely defined based on glideslope approaches to runways, flight patterns and noise levels generated by aircraft.

Within the tight confines at the ends of runways, the only way to ensure safety in the air and on the ground is outright purchase and clearing of land in order to establish a clear zone. Beyond the clear zone and over areas where flight occurs at relatively low altitudes of 1000 feet or less above ground, land use should be controlled to limit the height of structures (especially antennas), smoke, strong or unusual lights, and residential development which may be insensitive to television interference and aircraft noise. This may involve requesting aviation agreements, where necessary, to protect the Lakeland Linder Regional Airport from complaints from new development in the area.

The effort to control land use affected by the Lakeland airport airspace involves four local government jurisdictions. Besides Polk County and the City of Lakeland land jurisdictions, the approach slope to one runway (east-west) begins over Plant City and Hillsborough County. The latter have zoning regulations which address land uses relative to airports, but have not applied the zoning in conjunction with the Lakeland airport. An intergovernmental coordination effort between these jurisdictions to establish long term compatibility between off-airport and on-airport land uses within the Lakeland airspace is on-going.

The City of Lakeland has expended considerable effort in minimizing obstructions to the airport airspace. The Polk County Joint Airport Zoning Board, JAZB, includes representatives from Polk County, Lakeland and representatives from other cities in Polk County with public airports and officially includes two members from Hillsborough County. Since Lakeland is officially represented on the JAZB, the controls for airspace under the purview of the JAZB are the City's local tool for airspace regulation. Variances for such things as tall radio towers within a certain distance of a public airport are reviewed and voted on by the Joint Airport Zoning Board of Appeals, JAZBA.

Off-airport land use is another airspace issue. Besides residential developments, there are certain medical, nursing care, or communications-sensitive activities which may be adversely affected by airport operations. The City of Lakeland currently receives a minimal number of complaints from people concerned with aircraft overhead. As southwest Lakeland continues to develop and airport activity increases, complaints may increase, especially from any approved residential development within

about 1 to 2 miles of the airport area. This is a reason two residential developments approved in the late 1990's and located just north of Lakeland Linder Regional Airport were requested to agree to aviation easements holding the airport harmless for noise and other adverse affects.

Aquifer Recharge Zones: State growth management law requires local governments to identify major natural groundwater aquifer recharge areas within their jurisdiction. Where those groundwater recharge areas are identified by the Water Management District as prime or high recharge for the deeper Floridan aquifer, they will be mapped on a topographic map. Unfortunately this has not been done by the SWFWMD. However, the model used by the St. John's River Water Management District and adapted by Polk County Natural Resources Division, indicates one small area of "high" recharge potential near Scott Lake, south of Lakeland (see Infrastructure Element, Natural Groundwater Recharge section.)

Land areas which absorb rainfall and percolate it downward into underground water systems are aquifer recharge areas. Though actual percolation depends upon the subsurface geology, there are several land surface characteristics indicative of high recharge to the groundwater aquifer. The principal characteristics include the presence of dry, xeric vegetation, upland ridge topography and the presence of sinkholes or drainage sinks.

According to the Bartow office of the U.S. Soil Conservation Service, Scott Lake is an old sinkhole formation. A 1989 sinkhole in this area occurred along E.F. Griffin Road which was 50 feet deep with a cavern of flowing water at the bottom. Such sinkholes form because surface water is draining directly into underground water systems and the ongoing erosion causes the soil to collapse when underground water volumes drop to low levels.

Under pre-development conditions, the entire Lakeland Ridge was probably a high recharge area. Urban development, however, has greatly limited the natural recharge capability. Downtown Lakeland soil characteristics are classified by the Soil Conservation Service as "Urban Complex" indicating that the extent of impervious surface gives the area a very low recharge classification.

As a follow-up to identifying aquifer recharge areas, local governments must enact land use and development regulations to protect this natural function. These regulations may take the form of controlling densities and permitted uses within high recharge areas as well as requiring higher on-site rainfall retention capacity than required for lower recharge areas.

Greenbelt: The description and discussion of the Greenbelt outside of Lakeland and the greenway system inside Lakeland is given above under

the discussion for Issue number 4 under the listing of Issues and Opportunities. Open spaces within and between urban areas provide separation and relief between the monotony of urban corridors, and heighten community identity and livability. Again, there are a variety of benefits to be derived from a continuous open space corridor around the Lakeland Urban Area. Besides impacting urban development patterns, benefits also include water conveyance, drainage, storage, recharge and cleansing, vegetation and wildlife habitats, air quality and cooling benefits and varied recreation opportunities.

A conservation-type greenbelt should not be confused with land use designations. While land use spells out how land may be developed or preserved, the conservation goal within a greenbelt concept strives to maintain natural systems and functions within a predominantly open space environment. Where development does occur within conservation lands, it must mitigate its impact upon natural systems such as wetlands. The open space environment can be achieved through density control including low density or clustering, preservation of native vegetation and establishment of dense vegetative buffers.

Public benefit will increase as additional lands within the identified greenbelt corridor are placed under public ownership. This can occur through further State and water management funded purchases, acquisition by local governments for public use or by conservation groups for preservation, or designation of conservation areas by property owners and developers within the corridor.

Historic Districts: Historic districts are designated to recognize an area's architectural or social distinction and as an incentive to maintain and further develop its character. There are seven historic districts within the City of Lakeland, plus a significant collection of historic sites on the campus of Florida Southern College. Exterior changes to buildings which are listed on the National Register of Historic Sites or which are locally significant and contributing historic structures are subject to review by the City's Historic Preservation Board. Illustrations II-7 and II-16 indicate the historic district boundaries and FSC campus area.

Details on each of the historic districts are given in the Housing Element.

The concentration of historic structures on the campus of Florida Southern College contains the structures designed by the famous American architect Frank Lloyd Wright and is listed in the National Register of Historic Places. Though the campus structures appear ultra modern, they were designed in 1938. The campus holds the world's largest collection of this historic architecture with its many engineering breakthroughs and uniquely designed furnishings.

Under the Florida Certified Local Government Program, the Lakeland Historic Preservation Board reviews changes requiring a building permit within this district including historic renovations, new construction and demolitions.

Wellfield Protection Zones: The City of Lakeland uses 13 deep wells located around the water treatment plant near I-4 and Kathleen Road and collectively comprise the Northwest Wellfield. The wells were not located under criteria which would afford each a substantial zone of protection from possible contamination. Many are located next to development with a potential to contaminate the well through the water drawdown effect of pumping, also known as the cone of influence. However, Lakeland's Land Development Regulations do offer a 500 foot radial zone of protection and administrative and monitoring procedures for any business operating in the zone with certain listed chemicals or materials.

A primary reason for the City's purchase of a major wellfield in a remote, protected area of the Green Swamp, located on the north side of Old Polk City Road at Tomkow Road, included the potential for wellfield protection given the growth of the water service area and subsequent demand for more water. In order to meet forecast demand for an increasing population, the City decided to develop a second major wellfield away from the hydrologic influences of existing major pumping areas. This strategy allows the Northeast wellfield, consisting of five drilled wells, to serve as back up to the Northwest wellfield operation and allows for the potential for cross-connection capability to cover any water shortage emergency due to major equipment failure or disaster.

By purchasing over 800 acres of land around the Northeast Wellfield to include a development-free protection zone, the City can ensure protection from surface contamination and also avoid liability for drying up private wells in close proximity to the wellfield. State interest in purchasing the land around the wellfield for public environmental lands programs should serve this same purpose. Furthermore, a protection zone is crucial at the new Northeast Wellfield because the Floridan Aquifer from which raw water is drawn, is only 12 feet below the surface.

FUTURE LAND USE CLASSIFICATION SYSTEM

As part of the comprehensive planning process and in an effort to promote intergovernmental coordination, Polk County and its municipalities developed a common future land use classification system. Although specific definitions and procedures may vary from jurisdiction to jurisdiction, the underlying concept remains constant. In 2003 the State Department of Community Affairs found Lakeland's Comprehensive Plan eligible for certification under a new State program; the city limits, as of early 2004, were to be certified, not including any portion of the Green Swamp ACSC. However, the certified area could be extended outside the corporate limits to include potential City annexation

areas. To accomplish such an extension of the certified area, the City must enter into an interlocal agreement with Polk County establishing a joint planning area (JPA) that outlines conceptual future City land uses for the potential annexation area. This interlocal agreement for the JPA would be subject to DCA approval and require a future amendment to the Comprehensive Plan showing the new boundaries for the Certified Area in order for the certification agreement and associated boundaries to be amended. The Comprehensive Planning Certification Program will allow most Plan amendments to be found exempt from State review. Exemption from State review could allow map and text amendments to become effective in roughly four or five months, or about half the time it takes for non-exempt amendments. Further explanation of certification and a depiction of the boundaries of the certified area are found in the City's Intergovernmental Coordination Element.

The City's classification system first defines development intensity areas, and then establishes specific future land use categories permitted within each intensity area, and establishes the maximum density or intensity of each future land use category. This effort resulted in the development of the Lakeland Year 2000 Future Land Use Map, as shown in Illustration II-19 (see pocket folder).

Future Land Use Intensity Areas: The overlay intensity areas, as shown in Illustration II-17, (note: this illustration has been updated) define large geographic areas which are proposed for one of four types of development that extend from the most urban at the core to the least urban at the edge of the city. The availability of public services and facilities (including transportation, water and wastewater service, drainage, parks and recreation, fire protection, and police protection), environmental limitations, and compatibility with surrounding land uses are the primary factors which determine the density, intensity, and type of development that may occur within each overlay intensity area and also indicate when development can proceed so that it is not premature. Service availability is primarily a level of service and funding decision and local governments help to shape their physical environment by expending monies for capital improvements in those areas where future growth and development is to be directed. As a result, overlay area boundaries are largely based on where public improvements are made and public decisions which promote either urban, suburban, or rural land use patterns. For purposes of future land use designation, the overlay intensity areas will correspond closely with the public service and facility improvements outlined in the Capital Improvements Program.

The overlay intensity areas are meant to be interpreted as general areas of development intensity depicting high urban type densities at the core with lower densities less urban in nature as you move outward from the urban core. The density, intensity, or types of uses permitted in any proposed development within any of the overlay intensity areas is ultimately dependent upon natural resource and environmental limitations, public service and facility availability at acceptable levels of service, compatibility with surrounding land uses, and consistency with the Lakeland Comprehensive Plan: 2000-2010 and the Future Land Use Map (or County Plan and County Future Land Use Map, since some of the intensity areas extend out into the County). This level of assessment can only be made on a site by site basis and is part of the overall development application and review process including zoning. Because there is a range of densities, intensities and types of use, there is no right to the maximums within any given future land use category at any given time.

Although service availability is a major consideration when locating potential land uses, natural characteristics of the land and other natural resources must also be considered. The development of urban uses in wetlands or other sensitive environmental areas is no longer an acceptable development practice. The location of future land uses will be greatly impacted by natural features that are either conducive to or prohibitive of development. Illustration II-14 outlines environmental constraints and natural resource limitations to urban development within the Lakeland Planning Area. Illustration II-15 outlines development control zones which require special consideration when locating future land uses.

Location of future land uses should also be based on desired land use patterns. The physical shape of developed areas is an evolutionary process based largely on public choice, financial feasibility, and compatibility with existing land use patterns. Development

of a future land use map is a prime opportunity for local governments to consciously shape their future and follow the various desires and constraints described within this element.

There are four overlay intensity areas within the larger Lakeland Planning Area as outlined in Illustration II-17. The overall future land use plan is one of compact urban development with the highest densities in the Central City and lower densities radiating outward from the urban core. This pattern is broken only by land uses previously approved through developments of regional impact or annexation agreements. Illustration II-18 depicts major factors of development including annexation agreements currently active in the Lakeland Planning Area. A description of each land use intensity area follows.

Central City Area: The Central City Area is the area currently served-with central water; central sewer; urban level public safety; an existing urban grid road network; fixed route mass transit; neighborhood based park and library service; and other facilities and services normally associated with medium to high intensity urban development. An area east of U.S. Hwy 98 inclusive of the Lake Bonny Neighborhood and portions of the Crystal Lake Neighborhood was added to the Central City Area for the 2000-2010 update. This addition was made based both on neighborhood input regarding what comprises the "Central City" and based on the presence of most or all of the services listed above. The Central City Area will allow a wide range of uses at higher densities than normally permitted within the remainder of the Planning Area. Large commercial uses are centered in this area and serve nearby land uses as well as attracting trips from the surrounding urban, suburban and rural areas.

The Central City Area will include the entire range of land use categories and is intended to contain a wide enough variety of urban uses and great enough residential densities to both require and support mass transit, enhanced pedestrian systems, cultural and social activities and the traditional synergism of urban uses that define a viable urban place. The Central Business District (CBD) is, of course, included in the Central City as are most regional commercial centers. The defined Central City Area contains approximately one tenth of the Planning Area land and one fourth of the Planning Area population.

Urban Development Area: The Urban Development Area, (UDA), is the area located outside the Central City Area but is expected to be served, within the planning period, by central water; central sewer; urban level public safety; an urban road network; and other facilities and services normally associated with urban development. The Urban Development Area will allow a wide range of land uses at densities and intensities usually lower than those found within the Central City Area.

The Urban Development Area is intended to contain almost all land uses found in the Central City Area, however, the amount of land in the more

intense uses will be significantly lower and more widely dispersed. Portions of the UDA were sparsely developed with suburban uses in the 1980's but along with the Central City Area, became the primary target of new development within the City in the 1990's. The UDA is expected to see the most physical change of any of the overlay areas during the planning period. The UDA was slightly expanded for the 2000-2010 update; all expansions are described below and were usually partly contiguous to existing city limits. The expansions reflect where the City may annex and either will or can make available most urban services.

The expansion of the UDA to the northeast near I-4 and Tomkow roads takes in an area identified on the 1997 Existing Land Use Map (ELUM) as already primarily developed with industrial and commercial uses north of I-4 and was kept west/outside of the City's proposed Greenway. The expansion of the UDA to the west follows the City's utility service planning area line for sewer and water service and was identified on the ELUM as primarily undeveloped. To the south, the UDA was expanded to include the planned Medulla Road Extension and associated undeveloped lands which are within City water and County wastewater service areas. To the southeast, the UDA line was expanded to include a land area south of C.R. 540 and east of US Hwy 98 South/Bartow Hwy, west of the proposed Greenway in this area. This corresponds to a discussion in the City's EAR regarding extension of the City's wastewater service line south to C.R. 540 and the need to expand the UDA eastward to recognize potential wastewater connections to the east which would translate into future voluntary annexation agreements in this area.

Another area of expansion for the UDA includes the anticipated Development of Regional Impact known as the Williams DRI located east of north Lakeland and east of the City's proposed Greenbelt. This area will require intense urban services beyond merely wastewater and water and therefore has a high potential for annexation into the City. The land use intensities expected in the DRI would qualify as urban development type intensities. While annexation of this land area would require some adjustment to the City's population projections and related service demands, some of that will be offset by the proposed purchase of about half of the Bridgewater DRI for use as a State preserve (resulting in less population and service demands). In addition, the DRI will be developed in phases over 15 years, to 2015 and beyond.

Suburban Area: The Suburban Area is the area located outside the Urban Development Area. This area typically lacks the majority of the facilities and services associated with urban development. The single greatest public infrastructure shortcoming which distinguishes this area from the Central City or Urban Development Areas is the rural road system. A second important factor is that this area usually is not served by a public

sub-regional sewer system. This area may also lack urban level public safety facilities or have unacceptable response times. Although a Suburban Area might have one major improved four lane highway, its road system is distinctly different from the traditional grid system of parallel routes and is significantly less developed than the Urban Development Area where several four lane roads serve to move traffic into and through the area. The primary land use within the Suburban Area is low and medium density residential. A limited amount of commercial and industrial development will be allowed provided minimum performance standards can be met. The total number and concentration of non-residential uses and residential densities will be largely dependent upon road improvements combined with the availability of other public facilities and should be restricted based on current or short term public improvement plans, historic land development patterns and densities, environmental resources, and the availability of existing commercial centers in the adjacent Urban Development Area. All new suburban development shall provide an urban sprawl analysis (as per Rule 9J-5.006 FAC) with their application for land use approval, if annexed; all suburban development shall provide for recreational amenities and open space on-site, cluster away from on-site wetlands, and provide adequate transportation network connections (road, sidewalk, bike lane and bus system). Residential densities within the City RL category may be limited to anywhere between zero and 5 units per acre with final density determined at the time of zoning.

This Suburban area was expanded eastward near the Polk Parkway due to ongoing infill approved by the County. Over the long range, the area between Auburndale and Lakeland is expected to become increasingly filled in with development as the two cities continue to grow and function as the main service providers for the area.

Rural Area: The Rural Area is the area located outside the Suburban Area. This area is typically unincorporated and has virtually none of the facilities and services associated with urban development. The primary land uses within the Rural Area are low density residential and agricultural uses. Any other proposed uses would be required to adhere to strict performance standards. Commercial shopping needs should be limited to small convenience centers with most needs met by commercial centers in Suburban or Urban Development Areas. Industrial or Business Park uses should be allowed only when they are directly related to agricultural or natural resource uses in the Rural Area.

Future Land Use Categories and Map: Within each overlay area, a variety of land uses will be permitted. The density and intensity of each permitted use will be determined primarily by the overlay area within which the permitted use is proposed. Future land use categories mapped within the Lakeland Planning Area are described below. The Future

Land Use Map is displayed in Illustration II-19. General characteristics are intended as a guideline for City development review. Note that the location criteria utilized for minimum distance or spacing between new commercial activity centers may not be able to be met by centers which existed prior to the adoption of the City's comprehensive plan (1990) or to lands designated and partially or wholly developed in the County as commercial activity centers prior to annexation.

Regional Activity Center (RAC): All future Regional Activity Centers will be allowed only within the Central City and Urban Development Areas. A Regional Activity Center is typically intended to accommodate the regional shopping needs of central Florida and contains a regional shopping mall, large box retail uses, or other regional attractors, and other commercial and office uses within close proximity to compliment and take advantage of the regional nature of the center. Up to 30% of land area can be devoted to medium or high density residential uses. Residential uses located above the first floor of non-residential uses shall not count against the 30% limit, however, such residential space shall not comprise more than half of the total non-first floor square footage within the RAC. There is no limitation on the percentage of land in retail or office uses. General characteristics of and development criteria for Regional Activity Centers are:

Access:

Intersection of two roads, with frontage on or direct access to an arterial roadway or a frontage road or service drive which directly serves an arterial roadway; for RACs located outside Central City CRAs, prefer proximity to a limited access highway. Access required to one or more existing fixed route mass transit lines. Must design for well connected, multi-modal internal access and include on-site transit shelter and bike rack.

Useable Site Area:

60 acres or more.

Gross Leasable Area:

400,000 to 2,000,000 square feet.

Minimum Pop. Served:

150,000 or more people.

Market Area Radius:

20 miles or more.

Location Criteria:

Central City or Urban Development Area and approximately 3 miles from another RAC

The City of Lakeland mapped the Lakeland Regional Medical Center and Watson Clinic Complex as a non-retail Regional Activity Center. The square footage, population served, and market area radius are most closely related to a regional facility and is too significant to consider in a less intense land use classification.

Community Activity Center (CAC): Future Community Activity Centers may be located within the Central City Area or Urban Development Area. A Community Activity Center is intended to accommodate the shopping needs of persons living within the community and generally contains a shopping center which typically includes a variety of stores such as grocery, drug, one or more junior department stores, and a group of smaller uses and other commercial and office uses within close proximity. Up to 20% of land area may be devoted to residential medium or residential high uses. Typically 100% of the land area will be devoted to retail and office uses with no limit on the percentage in either of these commercial uses. General characteristics of and development criteria for Community Activity Centers are:

<u>Access:</u>	Intersection of two roads with frontage on or direct access to an arterial or major collector roadway or a frontage road or service drive which directly serves an arterial roadway. Located within transit service district and prefer access to one or more existing fixed route mass transit lines. Design for well connected, multi-modal internal access and, where feasible, vehicular cross access.
<u>Useable Site Area:</u>	20 to 60 acres.
<u>Gross Leasable Area:</u>	100,000 to 400,000 square feet.
<u>Minimum Pop. Served:</u>	20,000 to 80,000 people.
<u>Market Area Radius:</u>	2 or more miles.
<u>Location Criteria:</u>	Central City or Urban Development Areas; approximately 2 miles or more from any other retail commercial activity center

Neighborhood Activity Center (NAC): Future Neighborhood Activity Centers may be located within the Central City Area, Urban Development Area, and Suburban Area. A Neighborhood Activity Center is intended to accommodate the shopping needs of persons living within the immediate surrounding neighborhoods. Generally this includes a grocery and drug store and a few other small retail and office uses in the contiguous building or on out parcels. Up to 20% of land area may be devoted to residential medium or residential high uses. Typically 100% of the land area will be devoted to retail and office uses. There is no limit on the percentage of land in either of these commercial uses. General characteristics of Neighborhood Activity Centers are:

<u>Access:</u>	Intersection of two roads, with frontage on or direct access to an arterial road, or collector road. Located within transit service district; prefer access to existing fixed route transit line. Design for safe
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	bicycle and pedestrian internal access and, where feasible, vehicular cross access.
<u>Usable Site Area:</u>	5 to 20 acres.
<u>Gross Leasable Area:</u>	10,000 to 100,000 square feet.
<u>Minimum Pop. Served:</u>	5,000 to 20,000 people.
<u>Market Area Radius:</u>	1 1/2 miles.
<u>Location Criteria:</u>	Central City, Urban Development, or Suburban Area; approximately 1 1/2 miles or more from any other retail commercial activity center

These general characteristics may be reasonably varied where the NAC is designed within a master planned community and is intended to function as a village or town center for a traditional or “new urbanist” type mixed-use development.

Convenience Center (CC): Future Convenience Centers may be located within the Central City Area, the Urban Development Area, the Suburban Area or the Rural Area. A Convenience Center is intended to accommodate the small scale convenience shopping, commercial services and/or office needs of residents living within the immediate surrounding area. General Characteristics of Convenience Centers are:

<u>Access:</u>	Intersection of two roads with direct frontage on or access to an arterial road, or collector road. Design for safe bicycle and pedestrian access.
<u>Useable Site Area:</u>	1 to 3 acres.
<u>Gross Leasable Area:</u>	3,000 to 10,000 square feet.
<u>Market Area Radius:</u>	1 mile.
<u>Location Criteria:</u>	Central City, Urban Development, Suburban or Rural Area; approximately 1 mile or more from any other retail commercial activity center

Linear Commercial Corridor (LCC): The Linear Commercial Corridor land use category is used to describe an existing situation. New Linear Commercial Corridor land use is permitted only as an infilling of existing commercial corridors within the Central City Area and Urban Development Area. This land use category generally consists of non-anchor retail and service areas that lack controlled centers but provide locations for businesses including those inappropriate for shopping centers and better suited to traffic-oriented areas. These commercial corridor areas are typically characterized by businesses that need higher visibility and more driveway access than provided by shopping centers.

Interchange Activity Center (IAC): A special category of activity center has been created to address the unique opportunities associated with land development at limited access highway interchanges. Interchange Activity Centers may be located within the Central City Area, Urban Development Area and Suburban Area. An Interchange Activity Center is intended to delineate a coordinated development area which, due to proximity to and/or direct access to an interstate or limited access expressway, can achieve a high intensity of development activity necessitating the need for coordinated access, signage and other special development controls. This land use category encourages high intensity centers which function well and provide aesthetically attractive gateways to the community.

Final development approval for properties within this land use category will require the submission of a coordinated development plan which establishes access and other common development features through creation of a Special Public Interest Overlay District (SPI), which overlays the “base” zoning district(s) or a Planned Unit Development (PUD). Once approved, the SPI or PUD will be binding on all subparcels within the activity center. The Community Development Department will involve property owners within the development area in the preparation of the coordinated development plan for the concurrent or subsequent zoning approvals required. The SPI or PUD requires approval by the City Planning and Zoning Board and the City Commission, and is separate from and may be concurrent or subsequent to the adoption of the IAC land use. Nothing herein is intended to deprive property owners of their legal access points existing prior to the IAC designation. However, development or redevelopment at intensities allowed in an IAC category may be possible only where the coordination of primary access points can be achieved in the form of shared or joint access drives or roads.

Land development near interchanges caters to regional travelers and includes lodging and eating establishments. However, an Interchange Activity Center may also be oriented toward a single tourist or other retail destination, an office or employment center, a high density residential center, or some other activity appropriate to an interchange location. Up to 35% of the total IAC may be used for medium or high density residential uses. Residential uses located above the first floor of non-residential uses shall not count against the 35% limit, however, such residential space shall not comprise more than half of the total non-first floor square footage within the IAC. As community gateways, light industrial or warehouse uses as allowed in the City’s I-1 zoning district shall comprise no more than 30 percent of the total acres in the IAC designation as may exist in the 4 quadrants of the interchange. General characteristics of Interchange Activity Centers are:

<u>Access:</u>	Interchange of a limited access highway, with an arterial or collector road. Shared
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	access plan is required for IAC uses to limit driveways near interchange.
<u>Usable Site Area:</u>	30 or more acres.
<u>Typical Square Footage:</u>	250,000 to 1,000,000 square feet.
<u>Minimum Population Served:</u>	40,000 to 80,000 people.
<u>Location Criteria:</u>	At or connected to one or more quadrants of a limited access roadway interchange

The above generalized criteria tend to apply to the entire Interchange Area including all four quadrants of an interchange, rather than individual parcels within or quadrants of the interchange. Therefore, acreages for some new IAC areas may be much smaller (as relates to acres and square footage) initially as new or re-development opportunities act as catalysts for the redesignation of properties to the IAC land use category.

Business Park Center (BP): Business Park Centers may be located within the Central City Area, the Urban Development Area, and the Suburban Area. A Business Park Center may be located in the Rural Area if it is related to agricultural or natural resources in this area and contingent upon the availability of adequate public facilities and services and the ability of the site to meet additional zoning or performance requirements. A Business Park is intended to provide for the placement of establishments to accommodate employment centers including light-assembly, manufacturing, warehouse, distribution, showroom and local and non-local office needs of the Planning Area. General characteristics of Business Park Centers are:

<u>Location:</u>	Intersection of or contiguous to an arterial road, or collector roads for local center, preferably with the capability to accommodate a fixed route mass transit line.
<u>Useable Site Area:</u>	10 acres and up.
<u>Typical Square Footage:</u>	500,000 to 2,000,000 square feet for non-local uses; typical for local uses is 20,000 to 100,000 sq. ft.
<u>Employment Area Radius:</u>	20 miles or more.

The Business Park category, to a great degree, replaces the broad industrial category and is a reflection of the changing types of businesses in the local economy which are neither heavy industrial nor solely retail. The Business Park category is not intended for general retail uses or commercial offices but for major employment centers. Limited retail uses will be allowed in the category where it is related to or supportive of the primary employers and businesses already located or under development within a Business Park Center and limited to those allowed in the City's O-3 zoning district plus gas station and convenience store uses. Where retail uses are included in a BP land use district, a Planned Unit Development zoning shall be required to address issues including compatibility and transportation. Not more than 10% of the total land area in a Business Park category on the future land

use map may be utilized for these commercial uses, subject to compatibility with internal uses within the business park as well as with adjacent land uses. Typical retail uses in a BP land use may include office supply, limited restaurant uses and day care centers. Mixed uses within a Business Park shall be subject to a master plan indicating coordinated on-site multi-modal access, adequate buffering, and performance criteria established in Land Development Regulations. Hotel uses shall be an allowed use within a Business Park, and not limited to the 10% retail component. Retail and hotel uses shall be subject to a high degree of internal connectivity for vehicular and pedestrian access within the business park. Where more than one hotel and/or more than one restaurant is proposed, access shall be provided to a signalized intersection or frontage road with direct access to same; this access requirement may be met through an approved cross-access agreement with an adjoining non-residential or mixed use property. No residential uses are permitted in the Business Park category. As is the case for all City land use designations, the maximum lot coverage for primary Business Park uses and allowed subordinate uses such as retail and hotel, shall be as directed by the zoning district(s) assigned to the property as per the adopted Lakeland Land Development Regulations. However, there shall be a maximum floor area ratio, or FAR, of 0.50 for the Business Park future land use designation.

Industrial (IND): Future Industrial land uses may be located within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Industrial land uses are generally characterized as uses engaged in the manufacturing, processing, assembly and/or treatment of finished or semi-finished products. Industrial uses often create impacts external to the site such as noise, dust, excessive truck traffic and should be buffered from residential uses whenever possible. Businesses which do not have such significant external impacts can usually be accommodated in the Business Park category and the number of industrial designations will be reduced through the use of the Business Park Category for employment operations with less impact. Also included in the industrial category are distribution and warehousing facilities, airports and rail yards. Location of Industrial uses within any overlay is contingent upon the availability of adequate public facilities and services and the ability to meet additional zoning or performance requirements. General retail, general office and residential uses will be prohibited in the Industrial Land Use Category.

Residential Low (RL): The Residential Low category will be utilized within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Residential Low is generally characterized as low density residential at a density of between 0 and 5 dwelling units per acre contingent upon natural and physical limitations, the availability of public services, and compatibility with surrounding land uses as determined during the development application and review process.

Residential Medium (RM): The Residential Medium category will be utilized within the Central City Area, the Urban Development Area, and the Suburban Area. Residential Medium is generally characterized as medium density residential at density of 5.01 to 12 dwelling units per acre, contingent upon natural and physical limitations of proposed development sites. Density less than 5 dwelling units per acre is permissible. To promote compact, walkable development and infill redevelopment through mixed use, up to 5% of the Residential Medium area may be considered for small scale office or commercial uses. Up to 10% small scale office uses and up to 5% small scale commercial uses may be considered in Mixed Use Areas within the Central City Development Area. (See Office/Commercial Use Guidelines below.)

Residential High (RH): The Residential High category will be utilized within the Central City Area and the Urban Development Area. Residential High is generally characterized as high density residential at a density of greater than 12 units per acre contingent upon natural and physical limitations of proposed development sites. Density less than 12 dwelling units per acre is permissible. To promote compact, walkable development and infill redevelopment through mixed use, up to 15% of the Residential High area may be considered for small scale office or commercial uses. Up to 25% small scale office and commercial uses may be considered in Mixed Use Areas within the Central City Development Area. (See Office/Commercial Use Guidelines below.)

Office/Commercial Use Guidelines for RM and RH: See A-D below.

- A. Office and commercial uses shall be established in areas designated RM or RH only as a Neighborhood Convenience Center (NCC), Planned Unit Development (PUD), Special Public Interest (SPI) district overlay, or Conditional Use in accordance with the Land Development Regulations and where such includes enforceable conditions of approval in accordance with the general guidelines below.
- B. Mixed Use Areas: to promote compact, walkable, mixed-use development or redevelopment in the Central City and areas designated as a multi-purpose CRA, some areas with RM or RH future land use may be eligible for a higher percentage of office and/or commercial use. To be eligible, the area must be subject to a master plan adopted as part of a Planned Unit Development (PUD) or a Special Public Interest (SPI) district overlay that, at a minimum, provides for: master planning for key infrastructure including water, wastewater and roads; coordinated vehicle (including transit) and pedestrian access; and open space and recreational amenities. The maximum percent of non-residential found to be appropriate for a given location within a RM or RH area shall be determined on a case by case basis; maximums of 15 or 25 percent are not guaranteed.

C. Permitted Uses: Although office and/or commercial uses in areas designated RM or RH may benefit from community or regional traffic by virtue of their location it is the intention of this section that they provide neighborhood shopping opportunities, that is, goods and/or services that serve nearby residential areas. Typical permitted uses include medical and professional offices, florists, gift shops, book, candy or dress shops, pharmacies, banks, arts and crafts shops, barber and beauty shops, shoe repair establishments, dry cleaners, tailors, travel agencies, copying services, child or adult day care centers, bakeshops, delicatessens, sandwich shops and houses of worship.

D. Intensity Guidelines:

Maximum Floor Area Ratio: for RM: .35; for RH: .50

Maximum Building Height: 36 ft.

Location: About 1/3 mile to any existing NAC or CAC.

Access: Only on collector or arterial streets; drive-through uses shall be generally discouraged. Each office or commercial project shall have direct pedestrian access from the surrounding residential area. Cross or shared access, and/or stub-outs shall be used where feasible or as per City LDRs.

Hours: Non-residential uses within RM or RH shall not operate between midnight and 6 a.m.

Compatibility: Exterior building materials, scale, design, buffering and other issues related to compatibility of non-residential uses within RM or RH areas may be as recommended by the Community Development Director or appropriate City lay board. Design Guidelines for an NCC shall apply as a minimum, except where varied from by the governing PUD or SPI.

Recreation (R): Recreation uses may be located within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Recreation land uses are generally characterized as public and private facilities predominantly used for recreation purposes, but does not include commercial entertainment establishments.

Conservation (C): Conservation land uses may be located within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Conservation land uses are generally characterized as lands which, due to natural or environmental constraints, can only support low intensity uses such as residential of one unit or less to ten acres.

Preservation (P): Preservation land uses may be located within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Preservation land uses are generally characterized as publicly owned lands held as open space or passive recreation lands due to the natural features or limitations of the area for more intense uses.

Public Buildings, Grounds and Institutional Uses (PI): Future Public Buildings, Grounds and Other Public or Institutional Uses may be located within the Central City Area, the Urban Development Area, the Suburban Area, and the Rural Area. Public land uses generally consist of a variety of public and private institutional uses such as schools, government buildings, cemeteries, post offices, and other similar facilities. Public school uses are a permitted principal use in all FLUM categories except Future Right-of-Way (FROW), Conservation (C), and/or Preservation (P). Standards differentiating public and private schools are addressed in the City of Lakeland Land Development Regulations.

Future Right-of-Way (FROW): The City of Lakeland, within the Transportation Element of this Plan, proposed to develop a right-of-way acquisition and preservation program to identify and protect future right-of-way from development encroachment. At the time of Future Land Use Map adoption or amendment, there were specific areas known to be within the alignment of proposed transportation improvements. In these instances, it was apparent that a special future land use map designation was necessary to recognize the unique status of lands pending public acquisition and to support the City's commitment to protect existing and future rights-of-way from development encroachment. In response to this need, the *Future Right-of-Way (FROW)* land use designation was developed. The Future Right-of-Way (FROW) land use designation can be located within the Central City Area, Urban Development Area, Suburban Area, and Rural Area. In order to be eligible for this designation, the following minimum criteria must be met:

1. If the affected land is in private ownership, the Future Right-of-way designation will only be proposed with consent of the property owner(s);
2. The proposed transportation improvement must appear in the Long Range Transportation Plan;
3. The proposed transportation improvement must be shown to be necessary within the first ten years of the planning period; and
4. A Project Development & Environmental (PD&E) study or some similar study must show an alignment for the proposed transportation improvement.

In the event of a Development of Regional Impact (DRI) or similar project, the above minimum criteria will be waived in favor of final development approval which indicates the alignment of new roadways or roadway improvements proposed as part of the overall development project.

Areas within the FROW land use designation will not be subject to rezoning. The zoning in place at the time of Plan or Plan Amendment adoption will remain in place. In the event the proposed transportation improvement

project is abandoned, the City of Lakeland, Community Development Department will initiate a Future Land Use Map amendment to remove the FROW designation and assign a future land use designation consistent and compatible with the adopted Plan, the general area in which the property is located, and adjacent properties. During the Future Land Use Map amendment process, the Community Development Department will also, if necessary, initiate zoning changes required to maintain consistency with the Future Land Use Map.

Table II-11 represents a matrix of each of the land use categories discussed above and identifies the intensity area within which the use may be located. As can be seen, almost all high intensity and high density uses are limited to the Central City Area or the Urban Development Area.

**TABLE II-11
FUTURE LAND USE INTENSITY AREAS AND FUTURE LAND USE CATEGORIES**

LAND USE CATEGORY	INTENSITY AREA			
	CENTRAL CITY	URBAN DEVELOPMENT	SUBURBAN AREA	RURAL AREA
Regional Activity Center (RAC)	X			
Community Activity Center (CAC)	X	X		
Neighborhood Activity Center (NAC)	X	X	X	
Convenience Center (CC)	X	X	X	X
Linear Commercial Corridor (LCC)	X	X	X ¹	
Business Park Center (BP)	X	X	X	X
Interchange Activity Center (IAC)	X	X	X	X
Industrial (I)	X	X	X	X
Residential High (RH)	X	X		
Residential Medium (RM)	X	X	X ²	
Residential Low (RL)	X	X	X ²	X ²
Recreation (R)	X	X	X	X
Conservation (C)	X	X	X	X
Preservation (P)	X	X	X	X
Public Buildings/Grounds/ Institutional (PI)	X	X	X	X
Future Right-of-Way (FROW)	X	X	X	X

¹ Where annexed infill allowed

² Density may be limited due to lack of public facilities and services, environmental resources and/or issues of compatibility with surrounding land uses and patterns

Source: City of Lakeland, Community Development Department, 1993, as revised, 2003.

Illustration II-14
Environmentally Constrained Lands

T-05-009
Ordinance #4645
Effective 06/17/2005

**Illustration II-15
Development Control Zones**

Illustration II-16
Florida Southern College

T-01-004
Ordinance #4292
Effective 12/27/2001

Illustration II-17
Future Land Use Intensity Areas

Illustration II-18
Major Factors of Development

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to future land use issues. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the attainable and measurable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Future Land Use Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan.

GOAL: To provide for the best possible organization of land uses to meet the physical, cultural and economic needs of the present and future population in a manner that will maintain or improve the quality of the natural and man-made environment.

Objective 1: A future land use classification system has been developed and used for locating uses on the Future Land Use Map projecting the publicly approved arrangement of land uses for a ten year period with a formal review and revision at least every five years.

Policy 1A: The City of Lakeland has designated a Central City Area, Urban Development Area, Suburban Area, and Rural Area as development intensity areas on the Future Land Use Map series in accordance with the generalized criteria found in the "Issues and Opportunities" section of this element. The generalized criteria are intended to serve as guidelines only and indicate typical ranges for such parameters as acreage, intensity and population served. Actual values may vary somewhat on specific sites.

Policy 1B: In order to encourage the efficient concentration of high intensity land uses, and a compact development pattern and discourage commercial strip development patterns the City of Lakeland has designated existing and future Activity Centers. Designation will be based on the generalized criteria outlining allowable uses and densities found in the "Issues and Opportunities" section of this element and such designations are located on the Future Land Use Map. Activity center land use categories utilized by the City will include:

- A. Activity Centers
 - 1. Convenience Centers (CC)
 - 2. Neighborhood Activity Centers (NAC)
 - 3. Community Activity Centers (CAC)
 - 4. Interchange Activity Centers (IAC)
 - 5. Business Park Centers (BP)

6. Regional Activity Centers (RAC)
B. Future Activity Centers (FAC)

Activity Centers shall be spaced apart and developed per the intensities and densities listed in the generalized criteria in the Issues and Opportunities section of the Future Land Use Element. However, the spacing and other generalized criteria shall be considered along with the other goals and policies in this Plan when evaluating the acceptability of a proposal for a new or expanded activity center. Other Plan goals and policies which shall also be considered include those which address urban redevelopment, protecting or enhancing the viability of public resources and facilities, and/or maximizing internal trip capture rates via mixed use developments. Future Activity Centers may be designated on the Future Land Use Map with or without reference to a specific activity center category. The future designation indicates development is premature within the ten year land use planning projection. Reclassification from a future status to a specific activity center will occur through a Comprehensive Plan Amendment.

Policy 1C: The City of Lakeland has identified and mapped existing Linear Commercial Corridors exhibiting intense strip commercial development and will allow infilling of existing corridors only, with no creation of new corridors.

Policy 1D: The City of Lakeland has designated sites for industrial uses on the Future Land Use Map based on the generalized criteria found in the "Issues and Opportunities" section of this element.

Policy 1E: In order to encourage a variety of housing types within well developed residential neighborhoods and otherwise manage residential land uses to provide an adequate quantity and overall land use compatibility the City of Lakeland has designated sites and densities for residential uses on the Future Land Use Map. Designation is based on the generalized criteria outlining allowable uses and densities found in the "Issues and Opportunities" section of this element. Residential land uses categories utilized by the City include:

Residential Low Density (RL)	up to 5.00 DU/Acre
Residential Medium Density (RM)	up to 12.00 DU/Acre
Residential High Density (RH)	12.01* DU to 75 DU/Acre

The only exemption to this policy will be within the designated Central Business District. Residential High designations within the Central Business District will be allowed densities up to 175 dwelling units per acre in support of the City's efforts to eliminate urban sprawl, promote infill development, and maximize the use of public facilities and services within the central city. *Lower densities than the minimum density requirement for RH may be approved in areas designated for RH where the need and/or desire for single family infill housing is documented in a local neighborhood plan and/or an adopted Community Redevelopment Area (CRA) Plan and is supported by the Director of Community Development Department.

Policy 1F: The City of Lakeland has designated recreation, preservation and conservation sites on the Future Land Use Map. The Preservation category is confined to lands that are in public ownership and will be protected in their natural state for passive

recreational use. Other than passive recreation, the only allowable use within the conservation category will be Residential at a density of no more than one unit per ten acres.

Policy 1G: The City of Lakeland has designated City owned public buildings and grounds and other public, semi-public, and institutional land uses as "Public Institutional" (PI) on the future land use map based on the generalized criteria found in the "Issues and Opportunities" section of this element which includes a provision allowing public school uses as a permitted principal use in all land use categories except Future Right of Way (FROW), Conservation (C) and Preservation (P). Public schools are encouraged to locate near urban residential areas where the public facilities exist to support the new school. Also, new public institutional land uses such as parks, libraries, or community centers shall, to the maximum extent feasible, be collocated with new or existing public schools.

Policy 1H: The City of Lakeland has, on its Future Land Use Map, indicated areas where major public facilities needed to support future development can be located within the Public Buildings and Grounds and Institutional Uses PI future land use category so that suitable land is reserved and available. The location of public safety and security facilities such as fire/ambulance stations and community policing sites shall be allowed in all land use categories except Conservation, Preservation or FROW, and shall be regulated by the City's land development regulations to ensure compatibility with surrounding land uses.

Policy 1I: The City of Lakeland allows future rights-of-way on the Future Land Use Map. The Future Right-of-Way (FROW) category will protect future rights-of-way from development encroachment and will preserve rights-of-way for existing and future highway construction. This land use designation applies to lands in public ownership or which have the consent of the property owner to be designated as FROW. The exact boundaries of the FROW may be seen on the Lakeland Future Land Use Map Atlas. It is the intent of this land use category to allow only the construction of roads and related facilities such as drainage structures, traffic control devices, toll plazas, etc.

Policy 1J: By 2003, the City shall consider land development regulations such as increased minimum setbacks for structures and signs for proposed development subject to impact from a roadway project listed in the current, adopted FDOT 5-year work program, or City 5-Year Capital Improvement Plan.

Policy 1K: The City of Lakeland will continue to pursue high wage employment as a key component of community and fiscal sustainability. An annual jobs-to-population ratio may be one measure used to assess the trend as reflected in the City's Certification Program and Measures.

Policy 1L: The City of Lakeland will continue to work in partnership with the Lakeland Economic Development Council, institutions of higher (post secondary) learning, local business stakeholders and other local, county, regional and state entities in order to attract high wage jobs including but not limited to the industrial, manufacturing, high tech assembly, medical, energy-related/“green” and research and technology sectors. This shall be part of the City’s goal to improve the quality of life for all residents as it relates to community sustainability and ensuring a living wage for working residents.

Policy 1M: Development and redevelopment efforts shall strive to attain a mix of uses wherever possible. Employment, housing, institutional, medical, recreational, civic and retail/commercial land uses shall be located within relative proximity to one another wherever possible and/or combined on-site in order to achieve a well-balanced land use mix and to connect such uses through various modes of the transportation network.

Objective 2: Location of future land uses on the Future Land Use Map has given consideration to natural land development limitations and significant natural, archaeological, and historic resources will be protected from incompatible development through use of the Future Land Use Map and following the objectives and policies of this Comprehensive Plan.

Policy 2A: The City of Lakeland has identified generalized areas with development limitations necessitated by soil conditions, wetlands, hydrology or topography. When development is proposed, the developer will be required to provide specific information and assessments of environmental limitations as part of the project application and review. The City will strictly control development densities and intensities where such limitations are indicated.

Policy 2B: The City of Lakeland will require proposed developments to provide adequate information regarding soil suitability for the intended uses.

Policy 2C: The City of Lakeland will coordinate proposed development with the Conservation Element of this plan, including any future proposed sites for dredge disposal. Coordination with the various State environmental regulatory agencies shall continue as part of the City’s normal development review process.

Policy 2D: The City of Lakeland has identified environmentally sensitive lands, preservation and conservation areas on the Future Land Use Map series and will protect such areas from the negative impacts of development.

Policy 2E: The City of Lakeland has designated potable water wellfields and high aquifer recharge areas on the Future Land Use Map series and will protect such areas from the negative impacts of development.

Policy 2F: The City of Lakeland will require the developer/owner of any site to be responsible for the on-site management of runoff in a manner which assures that post-development runoff rates, volumes and pollutant loads do not exceed pre-development conditions. The City will use special setbacks and surface water management regulations to prevent deterioration of area waters.

Policy 2G: The City of Lakeland will continue to identify significant historic and archaeological resources which are in need of protection and will, by November 2001, develop and implement specific provisions as part of the Lakeland Land Development Regulations to protect such resources as per the predictive model for archeological resource sensitivity developed in 1999. This will include mapping the various sensitivity areas on the City's Geographic Information System.

Policy 2H: The City of Lakeland will give priority to the sensitive adaptive reuse of historic structures over activities that would harm or destroy the historic value of such resources.

Policy 2I: The City of Lakeland will use the predictive archaeological model to re-evaluate impacts to potential archaeologically significant areas. This model shall be used when evaluating land use changes, capital projects, and other land-altering activities.

Policy 2J: The City of Lakeland will continue to require developers of new or expanded mobile home or recreational vehicle parks to provide adequate emergency shelter space to house the entire project population.

(GOPs continued on next page)

Policy 2K: Control development within that portion of the Green Swamp Area of Critical State Concern (ACSC) which is located within the City of Lakeland, in compliance with Chapter 380, Florida Statutes. Development of this land is protected by the following policies entitled Principles for Guiding Development:

- a. Any development within the said ACSC and City limits will be serviced with the City's central potable water and central wastewater system.
- b. Minimize the adverse impacts of developments on resources of the Floridan aquifer, wetlands and flood detention areas.
- c. Protect or improve the normal quantity, quality and flow of ground water and surface water which are necessary for the protection of resources of state and regional concern.
- d. Protect or improve the water available for aquifer recharge.
- e. Protect or improve the functions of the Green Swamp Potentiometric High of the Florida Aquifer.
- f. Protect or improve the normal supply of groundwater and surface water.
- g. Prevent further salt water intrusion into the Floridan aquifer.
- h. Protect or improve existing groundwater and surface water quality.
- i. Protect or improve the water retention capabilities of wetlands.
- j. Protect or improve the biological filtering capabilities of wetlands.
- k. Protect or improve the natural flow regime of drainage basins.
- l. Protect or improve the design capacity of flood-detention areas and the water management objectives of these areas through the maintenance of hydrologic characteristics of drainage basins.

Objective 3: Location of future land uses on the Future Land Use Map will give consideration to and be dependent upon the availability of public facilities and services.

Policy 3A: The City of Lakeland will direct development to areas where public facilities and services are available or are projected to be available. High density, high intensity uses will be encouraged where the greatest level of public improvements exist. Lower intensities and densities will be encouraged where few public improvements or low public facility capacities exist.

Policy 3B: The City of Lakeland will condition development orders to locally established levels of service for public facilities and services and to the availability of required facilities and services concurrent with the impacts of development.

Policy 3C: Developers of projects significantly impacting failing transportation segments may elect to participate in the City's proportionate fair-share mitigation program, if the required mitigation measure will be fully-funded in the City's Capital Improvement Program. The required mitigation must be added to the first three years of the CIP.

Objective 4: Location of uses on the Future Land Use Map is based on existing and projected availability of adequate transportation facilities.

Policy 4A: Permitted future development will not result in the deterioration of levels of service for the traffic circulation system below an acceptable level as adopted through the Traffic Circulation Element of this comprehensive plan.

Policy 4B: The Future Traffic Circulation Map designates new facilities or improvements to existing facilities necessary to support uses proposed on the Future Land Use Map.

Policy 4C: Permitted future development will not result in the deterioration of levels of service for the traffic circulation system below an acceptable level as adopted through the Traffic Circulation Element of this comprehensive plan. Development will be granted “transportation concurrency” in accordance with the City’s adopted Concurrency Management Ordinance and provisions under the following scenarios:

- a. Sufficient capacity already exists on the significantly-impacted transportation link(s) to accommodate the development, without causing it to operate at an unacceptable level-of-service;
- b. A project is already programmed in the first three years of the City’s Capital Improvement Element (inclusive of projects contained in Florida Department of Transportation or Polk County Five-Year Work Programs) that provides enough capacity to accommodate the proposed development; or
- c. If the developer elects to participate in the City’s Proportionate Fair-Share Program, resulting in the addition of a fully funded mitigation measure within the first three years of the City’s Capital Improvement Element.

(GOPs continues on next page)

Objective 5: Programs for the redevelopment and renewal of neighborhoods including blighted areas will continue to be promoted.

Policy 5A: The City of Lakeland will continue to support downtown redevelopment plans and fund public improvements in accordance with such plans.

Policy 5B: The City of Lakeland will continue to promote investment and reinvestment in older neighborhoods by designating neighborhoods by geographic boundary, implementing design guidelines for preservation of contributing historic structures, developing a neighborhood plan for targeted neighborhoods, and implementing the developed plan as part of an ongoing effort to prevent further deterioration and promote revitalization.

Policy 5C: The City of Lakeland will implement a Neighborhood Improvement Program to encourage reinvestment in central city neighborhoods in order to foster a viable central city and to promote a compact development pattern. Continued coordination between city departmental staff to implement objectives through a “team” approach will be emphasized and include but not be limited to the Community Development Department, the Public Works Department, the Lakeland Police Department, and the Parks and Recreation Department.

Policy 5D: The City of Lakeland will continue to actively identify, develop and implement programs for the redevelopment or renewal of blighted areas. Expansion of the Community Redevelopment Area for Lakeland shall be one tool utilized to implement redevelopment objectives; this shall include but not be limited to the area referred to as the “Mid-Town” redevelopment area.

Objective 6: Existing land uses and zoning designations inconsistent with the character or proposed future land use of the area will be reduced or eliminated. Inconsistencies with the locally adopted Hazard Mitigation Strategy shall also be reduced where financially feasible.

Policy 6A: The City of Lakeland will adhere to established standards and density guidelines found within the Issues and Opportunities section of this element for each land use category located on the Future Land Use Map.

Policy 6B: The City of Lakeland will identify, reevaluate, and work toward the elimination of existing land uses inconsistent with the City's character and proposed future land use. Existing non-conforming land uses may remain, with normal maintenance, but will not be allowed to expand or redevelop.

Policy 6C: The City of Lakeland will identify, reevaluate, and eliminate zoning that is inconsistent with the Future Land Use Map or other policies within this comprehensive plan. Existing non-conforming land uses may remain, with normal maintenance, but will not be allowed to expand or redevelop.

Policy 6D: The City of Lakeland will, through revision of its land development regulations, establish criteria for ensuring compatibility between adjacent land uses. Such criteria will include, but not be limited to, landscaping requirements, buffering requirements, setbacks, signage, and other appropriate measures necessary to ensure compatibility between adjacent land uses.

Objective 7: Future growth and development will be managed through the preparation, adoption, implementation, and enforcement of land development regulations.

Policy 7A: The City of Lakeland will continue to enforce and periodically evaluate and update its land development regulations that contain specific and detailed provisions required to implement the adopted comprehensive plan and which, at a minimum:

1. Regulate the subdivision of land;
2. Regulate the use of land and water consistent with the Future Land Use Element, ensure the compatibility of adjacent land uses and provide for open space;
3. Protect lands designated for conservation on the Future Land Use Map and in the Conservation Element;
4. Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management;
5. Protect potable water wellfields and aquifer recharge areas;
6. Regulate signage;
7. Require noise walls or appropriate noise buffers for new residential developments locating near an existing or planned and funded portion of the Florida Turnpike Enterprise toll road system within the City;
8. Ensure safe and convenient onsite traffic flow and vehicle parking needs; and
9. Provide that development orders and permits will not be issued which result in a reduction of the level of service for the affected public facilities below the level of service standards adopted in the comprehensive plan.

Policy 7B: The City of Lakeland will continue to enforce and assess for consistency all land development regulations which address the location and characteristics of all land uses in accordance with the Future Land Use Map and the policies and descriptions of types, sizes, densities and intensities of land uses contained in this element.

Policy 7C: The City of Lakeland will, to the extent possible, coordinate its land development regulations with those of Polk County and will attempt to develop a uniform or similar future land use classification system to jointly address the organization of land uses in the common Lakeland Planning Area.

Objective 8: Urban sprawl will be prevented through adherence to the Future Land Use Map through the revision and enforcement of local land development regulations, by

Careful evaluation of all public service expansions, and through coordination with Polk County.

Policy 8A: The City of Lakeland will promote central city and infill development and redevelopment by implementing the designated uses and densities on its Future Land Use Map, encouraging downtown revitalization, historic designations and neighborhood redevelopment programs. New and expanded residential housing choices shall be pursued as a priority within the City's continuing downtown redevelopment plan.

Policy 8B: The City of Lakeland will continue to promote compact urban growth through the location of public facility expansions contiguous to existing service areas consistent with the policies and map within this Future Land Use Element.

Policy 8C: The City of Lakeland will continue to oppose development proposals which encourage an urban sprawl development pattern, constitute leap frog development or threaten to decentralize or disrupt the compact/linear development pattern which now exists in the Lakeland Planning Area and is institutionalized in the adopted Future Land Use Map and, upon plan adoption, all public facility expansion decisions will be consistent with this plan and the Future Land Use Map.

Policy 8D: The City of Lakeland will continue to consider the impacts of utility extension decisions on encouraging or discouraging urban sprawl and will evaluate existing policies and potential strategies to discourage urban sprawl through formal review of development proposals, including, where necessary, the assessment of the thirteen indicators of sprawl as outlined in Rule 9J-5.006, F.A.C. Development proposals which mix land uses in a manner such as to maximize internal trip capture rates, enhance connectivity to surrounding development and/or emphasize a sense of "community" through appropriate site layout and/or use of design techniques shall be generally encouraged.

Policy 8E: The City of Lakeland will coordinate efforts to discourage urban sprawl, support a compact development pattern and maintain its utility service agreement with Polk County and adjacent cities through formal and informal intergovernmental coordination efforts. One mechanism for such coordination will include participation in the Land Use Transportation Forum sponsored by the Polk County Transportation Planning Organization.

Policy 8F: In order to promote new densities and redevelopment opportunities, in part as called for in the City's Comprehensive Plan Certification Program, and as required to support the use of transit, the maximum allowable gross density shall be **120** percent of the maximum for **RM** for redevelopment on small urban infill lots and opportunities for infill on properties not to exceed 3 **acres** in size located within the Central City Development Area. The proposed development must be approved as *Planned Unit Development* and must provide:

- cross access to any adjacent non-residential land use, where applicable;
- improved alleyway access, if applicable;

- transit friendly site design (build to the street) and transit amenities (at minimum, an on-site bike rack); and
- funding for a transit shelter if the project consists of at least 20 units; the shelter may be located on site or on a proximate transit route, as approved by the transit provider and per the local transit needs plan.

Nothing within this policy shall be interpreted to permit a variance from any City regulation, including required building setbacks, codes, historic design guidelines or other building requirements. Density shall continue to be one factor in the City's land use decision, considering project scale, uses and characteristics with the surrounding neighborhood scale, uses and land use trends.

Objective 9: Proposed land use activities will be coordinated with any appropriate resource planning and management plan prepared pursuant to Chapter 380, Florida Statutes.

Policy 9A: The City of Lakeland will review any applicable Chapter 380 plan when making land use decisions for areas addressed in this plan in an effort to reduce potential conflicts.

(GOPs continued on next page)

Objective 10: The Future Land Use Classification System will be reviewed on a regular basis during plan implementation in coordination with Polk County, other Polk County cities, and the Polk County School Board in order to encourage uniformity, resolve conflicts and increase cooperation and consistency in land use planning.

Policy 10A: The City of Lakeland will meet with Polk County to review future land use designations and utility service areas and make necessary changes to the locations of these areas and to the Future Land Use Classification System that have become necessary during the first years of plan implementation.

Policy 10B: The City of Lakeland will distribute all provisions contained in the Future Land Use Classification System to all local governments in Polk County who are participating in the development and refinement of a common Future Land Use Classification System.

Policy 10C: The City of Lakeland will work with Polk County to develop similar or common land development regulations whenever feasible and will encourage a greater level or uniformity in these regulations over time as regulations are reviewed and revised.

Policy 10D: Per Chapter 235, Florida Statutes, at least 60 days prior to the purchase or leasing of property that may be used for a new or expanded public educational facility, and where the proposed site is in or adjacent to the City of Lakeland or subject to a City of Lakeland wastewater and/or annexation agreement, the Polk County School Board shall notify the City of the location of site. The City shall review the site as relates to consistency with the Lakeland Comprehensive Plan, Future Land Use Element including a preliminary analysis of the potential impacts to public facilities. The City's review shall be given to the School Board within 45 days after receipt of their initial notification to the City.

Where additional time is required for a complete public facilities impact analysis as relates to issues of concurrency for transportation, water, wastewater, parks, stormwater management and/or solid waste, the City shall request that the School Board delay the purchase or lease of a site for a new or expanded school site until such an analysis may be completed and reviewed by the City Commission and School Board respectively.

Policy 10E: As per Ch. 235, Florida Statutes, the planning for new or expanded educational facilities must consider the effects of the location of public education facilities, including the feasibility of keeping central city facilities viable, in order to encourage central city redevelopment and the efficient use of infrastructure while discouraging uncontrolled urban sprawl.

Policy 10F: As per Ch. 235, Florida Statutes, if the proposed site for a new or expanded educational facility is consistent with the future land use policies and categories of the *Lakeland Comprehensive Plan*, the City may not deny an application for such a facility but may impose reasonable development standards and conditions

which consider the site plan and its adequacy related to environmental concerns, health, safety and welfare, and effects on adjacent property.

Objective 11: The City of Lakeland will ensure availability of adequate future dredge disposal sites through the timely coordination of the City's Comprehensive Lakes Management Plan and all appropriate agencies.

Policy 11A: Once the need for additional dredge disposal sites has been verified, the City's Lakes Management Division shall coordinate with all appropriate City, State and/or Federal agencies and any affected landowners to determine the economic and environmental feasibility of proposed disposal sites. Site selection criteria shall include reasonable transportation costs and adequate land area for the dredge disposal as well as analysis of soil suitability to support the muck drying process.

Policy 11B: Dredge disposal site selection criteria shall ensure protection of the natural resources in conformance with the Conservation Element of this Plan.

The following policies relate to the Green Swamp Area of Critical State Concern (ACSC):

Policy X1: The following City of Lakeland future land use categories shall be allowed in the Green Swamp Area of Critical State Concern, ACSC, as per the provisions for each:

Lakeland Future Land Uses Allowed in Green Swamp ACSC:

- a. Agriculture Residential Low, ARL
- b. Residential Very Low, RVL
- c. Public Institutional, PI
- d. Business Park, BP
- e. Interchange Activity Center, IAC*
- f. Convenience Center, CC
- g. Recreation, R
- h. Conservation, C
- i. Preservation, P

(*=limited to area at Williams proposed interchange)

All densities are gross densities. All land use categories shall be as defined already in the Future Land Use Element of the Lakeland Comprehensive Plan unless further or newly defined below in this Section. Adequate transportation access to serve development shall include paved roadway access and internal paved roads. Floodplain areas shall mean the 100 year floodplain areas as defined by the effective Federal Emergency Management Agency (FEMA) maps/panels.

Policy X2: Agricultural Residential Low, ARL.

This land use is intended specifically for the Green Swamp ACSC but may be applied in other areas as shown in the "suburban development area" as depicted in Illustration II-17.

Allowed density and use:

- a. Agricultural uses and single family residential development of up to 1 unit per 10 acres without central water or wastewater, but with stabilized private road or paved public road access.
- b. Clustering to meet the open space, wetland and/or floodplain protection requirements for the ACSC may allow minimum 40,000 square foot lots in ARL land uses as long as the overall gross density for the property is not exceeded.

Policy X3: Residential Very Low, RVL.

This land use is intended specifically for the Green Swamp ACSC but may be applied in other areas as shown in the "suburban development area" or in the outer limits (2 miles) of the "urban development area" as depicted in Illustration II-17.

Allowed density and use:

- a. Single family residential development at a maximum density of 3 unit/acres; central water, central wastewater and adequate transportation access are *required*.
- b. Agricultural activity such as crop production, silviculture, cattle grazing/pasture uses and aquaculture uses; however, feed lots, poultry farms and similar "noxious" uses shall be prohibited.

Policy X4: Conservation, C and Preservation, P, land uses.

In the Green Swamp ACSC, Preservation, P, and Conservation, C, future land uses are intended primarily for passive recreation including trail uses as well as open space uses. As stated in other portions of the Future Land Use Element, the Preservation land use category is intended for publicly-owned sites whereas Conservation land uses may be privately held and both land use categories are intended to protect identified natural resources, including wetland, 100-year floodplain, creek and/or stream features as well as habitat areas (plant and/or animal). There is no underlying density allowed in Preservation.

In the Area of Critical State Concern, Conservation, C, future land use areas, a maximum density of one dwelling unit per 20 acres shall be allowed on upland areas (not floodplain or wetland areas). A single primary access road where consistent with City policies and standards including for natural resource protection, and as approved by Public Works Engineering, will be allowed to access the uplands. Any impacts to wetlands for such an access road shall be made only as a last resort and must include proper mitigation measures as approved by applicable regional and state agencies. Level one utility and essential service facilities as defined by the City's land development regulations, Section 35.02.12 (August 2005), and as permitted by the City

and applicable federal, state and/or regional agencies are allowed in Conservation land uses but shall not include any prohibited uses listed in this Plan for the Green Swamp ACSC. Any changes to City LDR Section 35.02.12 shall be subject to FDCA review for impacts to the ACSC.

Policy X5: IAC future land use in the Green Swamp ACSC.

In the event that an Interchange Justification Report (IJR) for the proposed Interstate-4 interchange for the Williams DRI is approved by the U.S. Federal Highway Administration and the Florida DOT, then an Interchange Activity Center land use, as defined otherwise in this Element, may be proposed in the Green Swamp ACSC within the Williams Community Redevelopment Area, as consistent with the Williams CRA Redevelopment Plan. However, all proposed land use map amendments are subject to City and State review and approval. Final development plan approvals for these IAC areas shall be dependent upon meeting the City's concurrency management provisions including adequate funding for construction of the new interchange in the first three years of a CIP or the CRA Trust Fund as reflected in a locally adopted CIP. Other appropriate future land uses of RVL or BP may be proposed for lands targeted in the CRA Plan for IAC uses until final approval of the IJR is obtained.

Policy X6: Prohibited uses.

In the Green Swamp ACSC within City of Lakeland, prohibited uses shall include the following as of the date of the adoption of these regulations:

- a. golf courses
- b. mining
- c. electric power generation facilities of any type
- d. hazardous substances or materials: no substances or materials shall be stored or used except as they would, in such quantity, be permissible for domestic or household purposes.
- e. package wastewater treatment facilities, wastewater treatment residuals and the spreading of sludge from septic tanks.
- f. new schools, private or public
- g. petroleum pipelines
- h. wholesale chemical operations;
- i. dry cleaning plants
- j. chemical research operations
- k. petroleum related industries and fuel dealers (however, gas stations may be permitted);
- l. industrial activities as defined in the Federal EPA's National Pollution Discharge Elimination System (NPDES) for Stormwater Associated with Industrial Activity (Cha. 40, CFR, Part 122), with the *exception* of general construction activities.

Prior to issuance of a City permit, development shall provide evidence that the criteria within the permit requirements for all other state, regional or federal permits have been

satisfied, including EPA NPDES, water management district stormwater criteria for preventing erosion and sediment from being discharged offsite (Rule 17-25.025(7)) and Pollution Source Control on Construction Sites requirements specified in Stormwater Best Management Practices 2.04 of Florida Development Manual.

Policy X7(a): Services to Non-residential land uses in the Green Swamp ACSC.

All non-residential land uses in the ACSC must be served with central water, adequate transportation access and central wastewater service.

Policy X7(b): Septic Systems in the ACSC.

Within the ACSC, any necessary septic system permits shall be obtained and submitted to the City prior to issuance of a city building permit; systems shall be setback a minimum of 75 feet from designated wetlands, 100 feet from the high water line of water bodies and outside the 100-year floodplain. Land uses which seek to expand utilizing previously approved septic tank systems may do so only where central wastewater is not currently available as per Ch. 381.0065 F.S., and where approved by the Polk County Health Department. The City endorses and will adopt a supporting resolution to continue to enforce the Polk County Health Department's septic tank inspection program for properties located within the Green Swamp ACSC on any lands annexed by the City of Lakeland which are within the ACSC; the referenced inspection program is that which was prescribed by Polk County Ordinance 98-31, An Ordinance Providing For The Inspection And Maintenance Of Septic Tanks Located In The Green Swamp Area of Critical State Concern.

Upon extension of City wastewater service such that it becomes available to serve an area within the ACSC of the City of Lakeland, then septic system use shall be terminated and connection to the City's centralized wastewater system required; the timing of such connection shall be as directed by the City's Director of Water Utilities and any applicable laws governing this issue.

Policy X8: Transit District Inclusion Requirement.

In order to allow for future transit services and to limit the need for new roadways to properties located in the Green Swamp ACSC, all such properties located near and along the Interstate 4, SR 33 roadways and at the intersection with Tomkow Rd, shall submit a voluntary petition for inclusion into the Lakeland Area Mass Transit District, LAMTD, or its future equivalent under the auspices of a regional transportation authority. Also, such petition shall be required prior to issuance of final development plan approval by the City (commercial site plan, subdivision plat, or building permit), for any BP or IAC future land use, or for a residential subdivision of 10 acres or more. It shall be the transit district or authority's option to refuse such petition and to provide regular (fixed route) transit services only when adequate funding allows such services.

Policy X9: To assist in the provision of transit services, land and funding for at least one park and ride lot shall be established within the total IAC future land use area of the Williams CRA. Funds for development of the park and ride lot shall be made available via the CRA trust fund but may include use as a match to any FDOT or other lot development grant. Funding for maintenance of the park and ride lot shall be considered by the Williams I-4 Interchange CRA and/or an owners association for the Williams DRI through expiration of the CRA or DRI.

Policy X10: Open Space and Impervious Surface Areas.

Open space lands in ACSC shall protect habitat, shall be permanent with 100% of the area as pervious surface and include wetland, floodplain and/or surface water areas on a property. Plats or site plans shall indicate the portion of land reserved for open space and state that *no clearing and no structures of any kind are allowed in the open space area*. In the ACSC, no variances or waivers shall be granted for open space provisions. Clustering of residential units is encouraged as a means to meet the open space set aside requirements found below.

- a. Residential developments in ARL shall provide a minimum of 80% open space.
- b. Residential developments in RVL shall provide a minimum of 30% open space.

And, impervious surfaces shall be limited as follows:

- c. Single family lots in the Residential Very Low land use category shall not exceed an impervious surface ratio of 50% unless the lots are within a planned unit development that maintains an overall impervious surface ratio of 50% and the required set-aside for open space.
- d. Commercial development shall not exceed an impervious surface ratio of 60% (i.e., at least 40% of the total property shall remain pervious).
- e. Development within a BP land use shall not exceed an impervious surface ratio of 70%.

Policy X11: Wetland Areas and Transfer Densities.

No development is allowed in jurisdictional or other wetlands, except where allowed by the applicable federal, state or regional permitting agencies, Rule 28-27 Florida Administrative Code, and as specified below and within Article 27 of the City's Land Development Regulations.

- a. All development shall develop in the non-wetland portion of a property. Platted development within non-jurisdictional wetland areas shall be allowed a transfer density of *up to* one (1) dwelling unit per 20 acres transferred to contiguous non-wetland areas on the same property. Gross densities on the property may not exceed the maximum for the land use category. Open

space and impervious surface limits as per this Section shall also be maintained. Lot sizes shall be as governed by the assigned City zoning and as per the adopted Lakeland Land Development Regulations. Transfers of density shall be noted on the face of the final plat as a restrictive covenant.

- b. Wetland areas in the Green Swamp ACSC shall be shown as environmental set-aside areas on all final site plans or subdivision plats.
- c. No new lots or parcels shall be created which are entirely within a wetland area in the ACSC unless such would result in a taking of private property. If so, one (1) unit will be allowed but shall be required to mitigate wetland impacts.
- d. Lots or parcels created prior to December 1, 1992 and which are 100 percent wetland areas, shall be allowed up to one dwelling unit with required wetland mitigation measures as approved by state and regional regulatory agencies.
- e. No disturbance of wetlands within the Green Swamp ACSC is allowed unless authorized or exempted from the regulation by the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, and the applicable water management district. Evidence of the appropriate permit or exemption shall be required prior to the issuance of a development permit.
- f. Where impacts to wetlands cannot be avoided, all permits for an agency with jurisdiction shall be approved prior to the City issuing a final development order. An "intent to issue a final development order" may be issued in writing prior to the issuance of said order if pre-approval is required by an agency with jurisdiction.

Consideration of wetland impacts shall include, but not necessarily be limited to, the following circumstances where no reasonable alternative exists:

- (1) To provide access to the site;
- (2) To provide necessary internal traffic circulation;
- (3) To provide necessary utility lines;
- (4) To provide necessary pre-treated stormwater management;
- (5) For purposes of public safety;
- (6) To avoid precluding all beneficial use of the property.

Policy X12: Floodplain Areas and Transfer Densities.

- a. Development shall cluster in the non-floodplain portion of a property. Transfer of densities shall be allowed for up to one (1) dwelling unit per 20 acres to contiguous non-floodplain areas under the same ownership or control. Transfers of density shall be noted on the face of the final plat as a restrictive covenant. Gross maximum densities on the property shall not exceed the maximum per acre and open space and impervious surface limits shall be maintained. Lot sizes shall be as governed by the assigned City zoning and as per the adopted Lakeland Land Development Regulations. Floodplain compensation shall be only as allowed by State environmental

review agencies with all agency permits obtained prior to final development approval from the City.

- b. No new lots or parcels which are totally within the 100 year floodplain shall be created in the Green Swamp ACSC. If a parcel existing prior to December 1, 1992 has no land outside the 100-year floodplain, then up to 1 dwelling unit per 20 acres shall be allowed and development will be required to provide compensatory storage for flood water displaced from the floodplain.
(Note this policy shall take precedence over Policy 4.3A(g) of the City's Infrastructure Element until the City has the opportunity to amend that policy to be consistent with Policy X12.)
- c. A detailed flood insurance study shall be performed for all subdivision proposals and other proposed development with five (5) or more acres of the 100-year floodplain. The study shall be performed in accordance with the Flood Insurance Study Guidelines and Specifications for Flood Contractors (FEMA Publication 37).

Phases of a larger development, if the larger development meets the five (5) acre impact criterion, are not exempt from this requirement. If existing subdivisions are proposed for re-platting, the re-platted portion shall be required to comply with this requirement if the re-platted portion meets the five (5) acre impact criterion.

Subdivisions which contain 10 lots or less shall be exempt from these requirements. The construction of a single-family residence on a parcel of land containing five (5) or more acres of 100 year floodplain which is not part of a subdivision or which is part of a subdivision in existence on the effective date of this Section is exempt from this requirement.

Policy X13: Xeriscaping, as a landscaping technique, shall be the preferred technique in the area of the City within the Green Swamp ACSC and shall be included in landscape plans for new or redevelopment to reduce water consumption. Xeriscaping is a method of landscaping that conserves water by clustering plants according to similar sunlight and water needs, creating landscape "zones" and minimizing irrigation needs. Where possible, irrigation systems should use stormwater runoff to irrigate landscaped areas and should preserve existing on-site vegetation.

Policy X14: Stormwater Management.

Stormwater management shall be done consistent with the City's established level of service policies found in the Infrastructure Element of this Plan. Stormwater management facilities shall not cause a reduction in the flood storage capacity of the 100 year floodplain, shall be designed to accommodate access for maintenance equipment, and shall facilitate regular operational maintenance including under-drain replacement, unclogging filters, sediment removal, mowing and vegetation control. Prior to final plat or site plan approval, the developer shall ensure that a designated

responsible entity, approved by the City for the maintenance of the stormwater management system has been established and is listed on the plat or final site plan.

Monitoring and operational requirements in the Green Swamp ACSC shall include the following:

- a. Periodic inspections of the system with a written inspection report to the appropriate water management district and a copy sent to the City of Lakeland Engineering Division (preferably an electronic copy to the City) to ensure that the system is functioning as designed and permitted.
- b. Inspection reports will be submitted 1 year after construction and every year thereafter to the relevant water management district.
- c. A registered professional engineer must sign and seal the report certifying the stormwater management system is operational as designed and maintained adequately for that design.
- d. Pollution abatement requirements shall be the first 1 inch (or 2.5 inches times the impervious area) of runoff for the developed site, or as per the regulations of SWFWMD, with this volume being recovered within 72 hours.
- e. Recharge Standard: Projects or portions of projects in Most Effective Recharge Areas must retain three inches of runoff from directly connected impervious areas within the project. Applicants may instead demonstrate that the post-development recharge will be equal to or greater than the pre-development recharge. Most Effective Recharge Areas are those areas with soils classified by the Soil Conservation Service as Type "A" Hydrologic Soil Group. Directly connected impervious areas are those impervious areas which are connected to the surface water management system by a drainage improvement such as a ditch, storm sewer, paved channel, or other man-made conveyance. Stormwater that is retained must be infiltrated into the soil or evaporated such that the storage volume is recovered within 14 days following a storm event.

Policy X15: The Lakeland Planning and Zoning Board review shall be required for approval of all site plans and all residential subdivision plans for compliance with the City's rules regarding development in the Green Swamp ACSC.

Policy X16: Protection Of Listed Species

To protect listed species which includes fauna and flora identified by the U.S. Fish and Wildlife Service (USFWS) and/or the Florida Fish and Wildlife Conservation Commission, (FWC), literally "listed" by these agencies as being endangered, threatened, and/or species of special concern, the City shall require the following:

- a. Any residential development consisting of 100 acres or more, more than 10 lots, or any non-residential development in excess of five (5) acres, shall be required to conduct a study for listed species. If it is determined that listed species are located on the site, a habitat management plan must be prepared

using guidelines and protocols of the FWC and/or USFWS. Prior to final plat or site plan approval, the City must receive a letter from FWC stating that the proposed Management Plan meets the standards placed on Management Plans by the FWC.

b. Protected habitat, for the purpose of this Management Plan, shall be defined as habitat for endangered, threatened, and/or species of special concern, and in most cases, the specific boundaries of these areas may not be determined until site-specific field inspections are conducted to verify those boundaries. It shall be the responsibility of the owner and/or developer to submit documentation, exhibits, studies, etc., for the purpose of establishing that properties should *not* be classified as protected habitat for such species *or* for notifying the FWC and/or the USFWS of proposed development which affects protected habitat.

c. Those properties identified as containing protected habitat shall comply with the following requirements:

1. Development shall be required to locate on the non-protected habitat portions of a development site. Transfer of residential densities shall be permitted from protected habitat areas to contiguous non-protected habitat areas within the same subdivision, subject to the following:

a. Residential densities shall be transferred from protected habitat areas to non-protected habitat areas at the underlying density and shall be clustered to the greatest extent possible to protect habitat. Any transfer of density to facilitate clustering shall not result in lot sizes, or areas per dwelling unit less than that required by the City's Land Development Regulations (the minimum lot/area size shall be exclusive of the wetland area); for lots utilizing septic tanks, the area shall not be less than 40,000 square feet. Portions of lots may be platted into habitat areas and shall not be construed as having disturbed the habitat area for a density-transfer provision so long as that portion of the lot does not include any fill, construction, improvements, or other development, and a restriction is placed upon the plat to prohibit such future actions within habitat areas.

b. All such transfers of density shall be to contiguous property under the same ownership or control and shall only be permitted within a subdivision platted and developed in accordance with the City's Land Development Regulations. Such transfers shall be noted on the face of the final plat as a restrictive covenant.

c. Commercial and industrial development shall locate on the non-protected habitat portion of a development site.

Policy X17: All development, as defined in Section 380.04, FS, with the exception of a single-family dwelling unit and accessory uses, shall submit to the City a project narrative describing the proposed development. This narrative shall also address how

their development supports the following State objectives in the Green Swamp Area of Critical State Concern:

- a. Minimize the adverse impacts of development on resources of the Floridan Aquifer, wetlands, and flood-detention areas.
- b. Protect or improve the normal quantity, quality and flow of ground water and surface water which are necessary for the protection of resources of state and regional concern.
- c. Protect or improve the water available for aquifer recharge.
- d. Protect or improve the functions of the Green Swamp Potentiometric High of the Floridan Aquifer.
- e. Protect or improve the normal supply of ground and surface water.
- f. Prevent further salt-water intrusion into the Floridan Aquifer.
- g. Protect or improve existing ground and surface-water quality.
- h. Protect or improve the water-retention capabilities of wetlands.
- i. Protect or improve the biological-filtering capabilities of wetlands.
- j. Protect or improve the natural flow regime of drainage basins.
- k. Protect or improve the design capacity of flood-detention areas and the water-management objectives of these areas through the maintenance of hydrologic characteristics of drainage basins.

APPENDIX II-ONE

CONCURRENCY MANAGEMENT SYSTEM

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CONCURRENCY MANAGEMENT SYSTEM

The Growth Management Act, and all local government comprehensive plans prepared in conformance with the Act, require that public facilities and services necessary to support proposed development occur concurrent with the impacts of such development. Policies throughout this comprehensive plan require that the issuance of development orders be contingent upon the availability of adequate public facilities at acceptable levels of service, however, successful implementation of such policies will be dependent upon review and monitoring procedures established by the City. The land use classifications of the adopted Plan shall be the controlling document in review of proposed development, supported by the Lakeland Land Development Regulations.

PURPOSE AND OVERVIEW

In response to the need to review all proposed development and monitor capacity and level of service for all public facilities and services to ensure that concurrency is maintained, the City of Lakeland has established a personal computer based concurrency management system. A Concurrency Management System Guide has been developed to assist developers and other interested parties in understanding the process for requesting concurrency determinations or obtaining concurrency certificates. The key elements of this guide are outlined within this section of the Future Land Use Element. These administrative procedures along with the computer based monitoring system will ensure that policies relating to concurrency are successfully implemented.

The City of Lakeland, like all other local governments in the State of Florida, must ensure that certain public facilities and services needed to support development are available at the time the impacts of development occur. It is the Concurrency Management System which will ensure that the impact of development will not degrade the levels of service adopted in the Lakeland Comprehensive Plan: 2000-2010 for public facilities and services.

The City, therefore, requires a concurrency review be made with applications for development approvals and a Certificate of Concurrency issued prior to development commencing. If the application is deemed concurrent, a Certificate of Concurrency will be issued by the Community Development Department. If the project requires any other development permit, a copy of the Certificate of Concurrency will be included with any future application for a development permit. A separate concurrency review will not be required for each development permit for the same project. Concurrency review addresses only the availability of facilities and capacity of services and a Certificate of Concurrency does not represent overall development approval.

If the application for development is not concurrent, the applicant will be notified that a Certificate cannot be issued. The burden of showing compliance with the adopted levels of service and meeting the concurrency test will be upon the applicant. The Community Development Department will direct the applicant to the appropriate staff to assist in the preparation of the necessary documentation and information.

The City of Lakeland, Community Development Department will review applications for development and a development approval will be issued only if the proposed development does not lower the existing level of service (LOS) of public facilities and services below the adopted level of service in this Plan. In the event that the LOS of a significantly-impacted transportation facility is failing, or is determined to fail as a result of a proposed development, the developer may choose to fund required mitigation measures through the proportionate fair-share mitigation program as per the City's adopted Concurrency Management Ordinance and provisions. When the proportionate fair-share mitigation program is pursued to achieve concurrency, the necessary improvement(s) must be fully-funded or added to the first three years of the City's five-year Capital Improvement Program. Projects requiring a public schools Mitigation Agreement to meet adopted school level of service standards shall follow the process as outlined in the Interlocal Agreement on Educational Facilities Planning as adopted by the City of Lakeland, Polk County and the Polk County School Board. A project will be deemed concurrent if the following standards are met:

1. The necessary facilities and services are in place at the time a development permit is issued;
2. The development permit is issued subject to the condition that the necessary facilities and services will be in place concurrent with the impacts of development;
3. The necessary public facilities and services are guaranteed in an enforceable development agreement to be in place concurrent with the impacts of development.

In addition to 1. through 3., above, roadways and mass transit facilities will be deemed concurrent based on the adopted five-year Capital Improvements Program as outlined below:

1. The five-year Capital Improvements Program and the Capital Improvements Element of the Lakeland Comprehensive Plan: are financially feasible. As permitted by Section 9J-5.055 (2)(c)1., Florida Administrative Code, concurrency determinations will include transportation projects included in the first three years of the Florida Department of Transportation Five-Year Work Program and Polk County Capital Improvement Program.
2. The five-year Capital Improvements Program includes improvements necessary to correct any identified facility deficiencies and maintain adopted levels of service for existing and permitted development.
3. The five-year Capital Improvements Program is a realistic, financially feasible program based on currently available revenue sources and development orders will only be issued if the public facilities necessary to serve the development are available or included in the five-year schedule of capital improvements.

4. The five-year Capital Improvements Program identifies whether funding is for design, engineering, consultant fees, or construction and indicates, by funded year, how the dollars will be allocated.
5. The five-year Capital Improvements Program identifies the year in which actual construction of roadway or mass transit projects will occur and only those projects scheduled for construction within the first three years of the City of Lakeland or Florida Department of Transportation five-year programs will be utilized for concurrency determination.
6. A plan amendment will be required in order to eliminate, defer or delay construction of any roadway or mass transit facility or service which is needed to maintain the adopted level of service standard.
7. The City of Lakeland will continue to maintain a computer based monitoring system in place to support the adopted Concurrency Management System enabling the City to determine whether adopted levels of service and scheduled capital improvements are being adhered to and ensuring acceptable monitoring of the availability of public facilities and services.
8. The Lakeland Comprehensive Plan clearly identifies all facilities and services to be provided by the City of Lakeland with public funds in accordance with the adopted five-year Capital Improvements Program.

A concurrency test will be made of the following public facilities and services for which level of service standards have been established in this plan:

- (1) Roadways/Transportation
- (2) Potable Water
- (3) Wastewater
- (4) Solid Waste
- (5) Drainage
- (6) Parks and Recreation
- (7) Public Schools, as applicable.

The concurrency test for all public facilities and services will be determined by comparing the available capacity of a facility or service to the demand created by the proposed project. Available capacity will be determined by adding together the total excess capacity of existing facilities and the total capacity of any new facilities which meet the previously defined concurrency standards and subtracting any capacity committed through concurrency reservations or previously approved development orders.

CONCURRENCY DETERMINATION PROCEDURES

An applicant may wish to determine quickly if there is sufficient capacity to accommodate their project. The Community Development Department staff will make an informal non-

binding determination of whether there appears to be sufficient capacity in the public facilities and services to satisfy the demands of the proposed project. The staff will then make a determination of what public facilities or services would be deficient if the development were approved.

There are certain development actions which are ineligible to receive a concurrency reservation because they are too conceptual and, consequently, do not allow an accurate assessment of public facility impacts. These development actions include land use amendments to the comprehensive plan and rezoning requests. Development actions of this type will receive a non-binding concurrency determination as part of the project review process.

Any concurrency determination, whether requested as part of an application for development action or without an application for development action, is a non-binding determination of what public facilities and services are available at the date of inquiry. The specific procedures for receiving a concurrency determination for each level of service facility are outlined below.

Concurrency Determination - Roadways and Transportation

1. The City of Lakeland will provide level of service information provided by the Polk Transportation Planning Organization as set forth in the adopted Lakeland Comprehensive Plan. The local transit provider and/or the Polk TPO shall provide relevant bus route, shelter data or other current transit data as necessary. The level-of-service information must be utilized in any "major traffic analysis" required for proposed developments generating at least 750 daily trips. The impact area to be evaluated must consist of any collector or arterial roadway segment where the development project is expected to consume five percent or more of the adopted peak-hour, peak season, peak directional service volume. If the preliminary level of service information indicates a level of service failure, the developer has two alternatives:
 - a. Accept the level of service information as set forth in the comprehensive plan;
 - b. Prepare a more detailed Highway Capacity Analysis as outlined in the most current edition of the Highway Capacity Manual, Special Report 209 or using updated methodologies approved by the City. Also prepare a Speed and Delay study following the procedures outlined by the Florida Department of Transportation, Traffic Engineering Office in its Manual for Uniform Traffic Studies.
 - c. Per the City's 2006 Memorandum of Understanding regarding administration of Proportionate Fair Share Programs, the Polk TPO Roadway Network Database shall be utilized and recognized as the official source for purposes of establishing the generalized existing level of service

on network segments including recognizing segments that have a failing level of service. Repeated detailed segment studies shall not be utilized to “debate” what the TPO Director and County staff recognize as a failing level of service where at least one or more detailed segment study has already been performed for said segment.

2. If the developer chooses to do a more detailed analysis, the following procedure will be followed:
 - a. Planning staff will provide the developer with the acceptable methodology for preparing the alternative analysis.
 - b. The developer will submit the completed alternative analysis to planning staff for review.
 - c. Planning staff will review the alternative analysis for accuracy and appropriate application of the methodology.
3. If the alternative methodology, after review and acceptance by the Planning staff, indicates an acceptable level of service where the comprehensive plan indicates a level of service failure, the alternative methodology will be used.
4. If the developer is at the application stage for the project, this alternative methodology can be used to obtain a Concurrency Determination - Roadways. This Concurrency Determination - Roadways is a non-binding determination that, at the date of application, adequate roadway facility capacity and levels of service are available.
5. If the developer is at the final approval stage for the project, this alternative methodology can be used to obtain a Certificate of Concurrency, the specifics of which are set forth in the Concurrency Management System Ordinance.
6. Any proposed development generating more than 750 trips a day will be required to provide a trip distribution model in addition to the requirements outlined above.

Concurrency Determination - Potable Water

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan. Requests for potable water may also need to be reviewed and approved by the City’s Water Committee as regards the City’s Water Use Permit, committed and available capacity data and City Commission-approved water allocation priorities.
2. If the level of service information indicates that the proposed project would not result in a level of service failure and/or a violation of the City’s Water Use Permit,

the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.

3. If the level of service information indicates that the proposed project would result in a level of service failure and/or that the development does not meet approved water allocation priorities as regards available water capacity through the City's Water Use Permit, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Wastewater

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry. Adequate capacity must be available in regard to both transmission lines and permitted treatment plant capacity.
3. If the level of service information indicates that the proposed project would result in a level of service failure or that there is inadequate capacity, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Solid Waste

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Drainage

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.

2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Parks And Recreation

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Public Schools

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan. The Polk County School Board shall provide school capacity data, as necessary. Preliminary school capacity data will be made available for non-binding concurrency requests. A formal school capacity determination shall be issued by the School Board for binding concurrency requests.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry unless adequate capacity will be provided for per a school mitigation agreement approved by the Polk County School Board, City of Lakeland and the applicant.

CERTIFICATE OF CONCURRENCY

A Certificate of Concurrency will only be issued upon final development approval and indicates that concurrency will be met for all monitored facilities and services. The Certificate of Concurrency will remain in effect for the same period of time as the development order with which it was issued. If the development approval does not have an expiration date, the Certificate of Concurrency will be valid for twelve months from the date of issuance.

APPENDIX II-TWO

LAKELAND POPULATION, A SUPPLEMENT, 1999

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

POPULATION PROJECTIONS

In early 1988, the City of Lakeland published a detailed technical population study. That study, provided as a comprehensive plan support document, outlined the size, growth, and distribution of the population; characteristics of the population; and, a forecast of the population. Since the City's EAR was not required to include population projections, the 1999 updated projections for Lakeland and the Urban Area are contained in Lakeland Population, A Supplement, 1999, which is found in Appendix II-Two in the Technical Support Document for the 2000-2010 Plan. Any adjustments to those projections will be appended to the Supplement.

In the spring of 2000, the Lakeland City Commission expressed support for the Metro Lakeland Vision document which addressed issues including economic development, racial harmony, education improvements, and enhanced City-County coordination and uniformity in development standards. The vision document included a call for annexation of a large area surrounding the existing City limits. An annexation program was developed to address potential annexations through 2010, although staff and City fiscal resources could stretch the timeframe to a later date. Some of the annexations would require referenda (voter) approvals while others were subject to wastewater-annexation or other agreements and rules. If all of the identified areas were annexed, the City's population could swell to over 120,000 by or before 2010. Urban service reports are required to address anticipated costs and benefits for each annexed area. These reports are reviewed by the City Commission prior to approval to place annexations on the ballot and/or proceed with annexation activities.

Table II-5, following, indicates the low, medium, and high population projections for the City of Lakeland and the Lakeland Planning Area through 2010. Normally, it is the medium projections which are used for general planning purposes. However in late 2000, the City initiated a new, aggressive annexation program in order to reach a population goal of 100,000. Referenda are planned every-other-year 2000-2006. The year 2000 referendum plus other growth resulted in a 2002 city population estimated at 86,656, which was over 8,200 more than the City's Census 2000 population. New population estimates for the planning period are found below and are based upon the continuing referenda planned through 2006. Population-dependent projections in other elements of the plan were also adjusted, including future land use, infrastructure, and recreational needs.

In addition to these general planning projections, Table II-6 outlines the "worst-case scenario" which includes seasonal population at medium population projections assuming

100% occupancy of all tourist facilities throughout the year. It is through use of these projections that the City of Lakeland is able to determine its ability to serve the maximum number of people in the City during the peak season.

**TABLE II-5
CITY OF LAKELAND AND LAKELAND PLANNING AREA
POPULATION PROJECTIONS 2000 - 2010**

YEAR	CITY OF LAKELAND			
	LOW	MEDIUM	HIGH	WITH AGGRESSIVE ANNEXATION
2000	78,676	82,613	86,811	86,656 (2002)
2005	82,689	89,562	100,986	102,018
2010	86,295	96,396	117,475	111,233
YEAR	LAKELAND PLANNING AREA			
	LOW	MEDIUM	HIGH	
2000	222,259	228,329	252,121	
2005	243,461	258,767	297,565	
2010	265,057	278,202	351,200	

Source: Shimberg Center for Affordable Housing, 1996, and City of Lakeland, Community Development Department, 2002.

**TABLE II-6
CITY OF LAKELAND AND LAKELAND PLANNING AREA POPULATION
PROJECTIONS INCLUDING SEASONAL ESTIMATES 2000-2010**

YEAR	CITY OF LAKELAND	PLANNING AREA
2000	96,465	275,836
2005	125,482	306,274
2010	136,816	325,709

Source: City of Lakeland, Community Development Department. 2002.

APPENDIX II-ONE

CONCURRENCY MANAGEMENT SYSTEM

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<i>Concurrency Determination – Parks and Recreation</i>	<i>6</i>
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<i>CERTIFICATE OF CONCURRENCY.....</i>	<i>7</i>

CONCURRENCY MANAGEMENT SYSTEM

The Growth Management Act, and all local government comprehensive plans prepared in conformance with the Act, require that public facilities and services necessary to support proposed development occur concurrent with the impacts of such development. Policies throughout this comprehensive plan require that the issuance of development orders be contingent upon the availability of adequate public facilities at acceptable levels of service, however, successful implementation of such policies will be dependent upon review and monitoring procedures established by the City. The land use classifications of the adopted Plan shall be the controlling document in review of proposed development, supported by the Lakeland Land Development Regulations.

PURPOSE AND OVERVIEW

In response to the need to review all proposed development and monitor capacity and level of service for all public facilities and services to ensure that concurrency is maintained, the City of Lakeland has established a personal computer based concurrency management system. A Concurrency Management System Guide has been developed to assist developers and other interested parties in understanding the process for requesting concurrency determinations or obtaining concurrency certificates. The key elements of this guide are outlined within this section of the Future Land Use Element. These administrative procedures along with the computer based monitoring system will ensure that policies relating to concurrency are successfully implemented.

The City of Lakeland, like all other local governments in the State of Florida, must ensure that certain public facilities and services needed to support development are available at the time the impacts of development occur. It is the Concurrency Management System which will ensure that the impact of development will not degrade the levels of service adopted in the Lakeland Comprehensive Plan: 2000-2010 for public facilities and services.

The City, therefore, requires a concurrency review be made with applications for development approvals and a Certificate of Concurrency issued prior to development commencing. If the application is deemed concurrent, a Certificate of Concurrency will be issued by the Community Development Department. If the project requires any other development permit, a copy of the Certificate of Concurrency will be included with any future application for a development permit. A separate concurrency review will not be required for each development permit for the same project. Concurrency review addresses only the availability of facilities and capacity of services and a Certificate of Concurrency does not represent overall development approval.

If the application for development is not concurrent, the applicant will be notified that a Certificate cannot be issued. The burden of showing compliance with the adopted levels of service and meeting the concurrency test will be upon the applicant. The Community Development Department will direct the applicant to the appropriate staff to assist in the preparation of the necessary documentation and information.

The City of Lakeland, Community Development Department will review applications for development and a development approval will be issued only if the proposed development does not lower the existing level of service (LOS) of public facilities and services below the adopted level of service in this plan. In the event that the LOS of a significantly-impacted transportation facility is failing, or is determined to fail as a result of a proposed development, the developer may choose to fund required mitigation measures through the proportionate fair-share mitigation program as per the City's adopted Concurrency Management Ordinance and provisions. When the proportionate fair-share mitigation program is pursued to achieve concurrency, the necessary improvement(s) must be fully-funded or added to the first three years of the City's five-year Capital Improvement Program. A project will be deemed concurrent if the following standards are met:

1. The necessary facilities and services are in place at the time a development permit is issued;
2. The development permit is issued subject to the condition that the necessary facilities and services will be in place concurrent with the impacts of development;
3. The necessary public facilities and services are guaranteed in an enforceable development agreement to be in place concurrent with the impacts of development.

In addition to 1. through 3., above, roadways and mass transit facilities will be deemed concurrent based on the adopted five-year Capital Improvements Program as outlined below:

1. The five-year Capital Improvements Program and the Capital Improvements Element of the Lakeland Comprehensive Plan: are financially feasible. As permitted by Section 9J-5.055 (2)(c)1., Florida Administrative Code, concurrency determinations will include transportation projects included in the first three years of the Florida Department of Transportation Five-Year Work Program and Polk County Capital Improvement Program.
2. The five-year Capital Improvements Program includes improvements necessary to correct any identified facility deficiencies and maintain adopted levels of service for existing and permitted development.
3. The five-year Capital Improvements Program is a realistic, financially feasible program based on currently available revenue sources and development orders will only be issued if the public facilities necessary to serve the development are available or included in the five-year schedule of capital improvements.
4. The five-year Capital Improvements Program identifies whether funding is for design, engineering, consultant fees, or construction and indicates, by funded year, how the dollars will be allocated.
5. The five-year Capital Improvements Program identifies the year in which actual construction of roadway or mass transit projects will

occur and only those projects scheduled for construction within the first three years of the City of Lakeland or Florida Department of Transportation five-year programs will be utilized for concurrency determination.

6. A plan amendment will be required in order to eliminate, defer or delay construction of any roadway or mass transit facility or service which is needed to maintain the adopted level of service standard.
7. The City of Lakeland will continue to maintain a computer based monitoring system in place to support the adopted Concurrency Management System enabling the City to determine whether adopted levels of service and scheduled capital improvements are being adhered to and ensuring acceptable monitoring of the availability of public facilities and services.
8. The Lakeland Comprehensive Plan clearly identifies all facilities and services to be provided by the City of Lakeland with public funds in accordance with the adopted five-year Capital Improvements Program.

A concurrency test will be made of the following public facilities and services for which level of service standards have been established in this plan:

- (1) Roadways
- (2) Potable Water
- (3) Wastewater
- (4) Solid Waste
- (5) Drainage
- (6) Parks and Recreation
- (7) Mass Transit

The concurrency test for all public facilities and services will be determined by comparing the available capacity of a facility or service to the demand created by the proposed project. Available capacity will be determined by adding together the total excess capacity of existing facilities and the total capacity of any new facilities which meet the previously defined concurrency standards and subtracting any capacity committed through concurrency reservations or previously approved development orders.

CONCURRENCY DETERMINATION PROCEDURES

An applicant may wish to determine quickly if there is sufficient capacity to accommodate their project. The Community Development Department staff will make an informal non-binding determination of whether there appears to be sufficient capacity in the public facilities and services to satisfy the demands of the proposed project. The staff will then make a determination of what public facilities or services would be deficient if the development were approved.

There are certain development actions which are ineligible to receive a concurrency reservation because they are too conceptual and, consequently, do not allow an accurate assessment of public facility impacts. These development actions include land use amendments to the comprehensive plan and rezoning requests. Development actions of this type will receive a non-binding concurrency determination as part of the project review process.

Any concurrency determination, whether requested as part of an application for development action or without an application for development action, is a non-binding determination of what public facilities and services are available at the date of inquiry. The specific procedures for receiving a concurrency determination for each level of service facility are outlined below.

Concurrency Determination - Roadways

1. The City of Lakeland will provide level of service information provided by the Polk Transportation Planning Organization as set forth in the adopted Lakeland Comprehensive Plan. The level-of-service information must be utilized in any “major traffic analysis” required for proposed developments generating at least 750 daily trips. The impact area to be evaluated must consist of any collector or arterial roadway segment where the development project is expected to consume five percent or more of the adopted peak-hour, peak season, peak directional service volume. If the preliminary level of service information indicates a level of service failure, the developer has two alternatives:
 - a. Accept the level of service information as set forth in the comprehensive plan;
 - b. Prepare a more detailed Highway Capacity Analysis as outlined in the most current edition of the Highway Capacity Manual, Special Report 209 or using updated methodologies approved by the City. Also prepare a Speed and Delay study following the procedures outlined by the Florida Department of Transportation, Traffic Engineering Office in its Manual for Uniform Traffic Studies.
 - c. Per the City’s 2006 Memorandum of Understanding regarding administration of Proportionate Fair Share Programs, the Polk TPO Roadway Network Database shall be utilized and recognized as the official source for purposes of establishing the generalized existing level of service on network segments including recognizing segments that have a failing level of service. Repeated detailed segment studies shall not be utilized to “debate” what the TPO Director and County staff recognize as a failing level of service where at least one or more detailed segment study has already been performed for said segment.

2. If the developer chooses to do a more detailed analysis, the following procedure will be followed:
 - a. Planning staff will provide the developer with the acceptable methodology for preparing the alternative analysis.
 - b. The developer will submit the completed alternative analysis to planning staff for review.
 - c. Planning staff will review the alternative analysis for accuracy and appropriate application of the methodology.
3. If the alternative methodology, after review and acceptance by the Planning staff, indicates an acceptable level of service where the comprehensive plan indicates a level of service failure, the alternative methodology will be used.
4. If the developer is at the application stage for the project, this alternative methodology can be used to obtain a Concurrency Determination - Roadways. This Concurrency Determination - Roadways is a non-binding determination that, at the date of application, adequate roadway facility capacity and levels of service are available.
5. If the developer is at the final approval stage for the project, this alternative methodology can be used to obtain a Certificate of Concurrency, the specifics of which are set forth in the Concurrency Management System Ordinance.
6. Any proposed development generating more than 750 trips a day will be required to provide a trip distribution model in addition to the requirements outlined above.

Concurrency Determination - Potable Water

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Wastewater

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Solid Waste

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Drainage

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Parks And Recreation

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

Concurrency Determination - Mass Transit

1. The City of Lakeland will provide level of service information as set forth in the adopted Lakeland Comprehensive Plan.
2. If the level of service information indicates that the proposed project would not result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was available at the date of application or inquiry.
3. If the level of service information indicates that the proposed project would result in a level of service failure, the concurrency determination would be that adequate facility capacity at acceptable levels of service was not available at the date of application or inquiry.

CERTIFICATE OF CONCURRENCY

A Certificate of Concurrency will only be issued upon final development approval and indicates that concurrency will be met for all monitored facilities and services. The Certificate of Concurrency will remain in effect for the same period of time as the development order with which it was issued. If the development approval does not have an expiration date, the Certificate of Concurrency will be valid for twelve months from the date of issuance.

III. TRANSPORTATION

INTRODUCTION

Transportation is a word that means different things to different people. To the truck driver and bicyclist it means roads; to a child it means sidewalks; to the elderly or handicapped it means buses or lift equipped vans; to the pilot it means airports; to the trainmaster it means railroads; to everyone it means a link. Transportation is the thread that links people and places.

As the Lakeland area continues to grow, moving people and goods becomes both more important and more difficult. The Transportation Element of the Lakeland Comprehensive Plan will be the foundation for future decision making that will affect not only how people are to be transported in the future, but also how hundreds of millions of public dollars are to be spent.

Transportation plays a key role in influencing growth patterns. The creation or improvement of roads can open up land to new development, change travel routes in ways that immediately change individual land use decisions, and eventually can redirect land use patterns. Because of this close interrelationship, the Transportation Element must be developed and reviewed in terms of its consistency with other elements of the comprehensive plan, especially the Future Land Use Element.

The Transportation Element is divided into several major sections, which address legislative requirements for content, including traffic circulation, mass transit, and aviation and related facilities (rail). In the first section, existing conditions are summarized. The second section examines issues and opportunities related to the transportation system. The third section includes goal, objective and policy statements. A Future Traffic Circulation Map is also included. The final section of the element sets forth a listing of projects for a five-year and ten-year timeframe.

APPENDIX III-ONE

(A) LEVEL OF SERVICE PROJECTIONS WITHOUT IMPROVEMENTS

(B) LEVEL OF SERVICE PROJECTIONS WITH IMPROVEMENTS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX III-TWO

LEVEL OF SERVICE WITHOUT IMPROVEMENTS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX III-THREE

STATE LEVEL OF SERVICE STANDARDS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

TRAFFIC CIRCULATION

EXISTING CONDITIONS & ANALYSIS

This section of the transportation element addresses the local road network and the motorized and non-motorized vehicles which use that network.

ROAD SYSTEM

The road network within the City of Lakeland and Lakeland Planning Area is comprised of the State of Florida highway system, the Polk County collector system and City of Lakeland streets. Each roadway is assigned a functional classification based on the jurisdiction that is responsible for its maintenance (jurisdictional) and the characteristics of the traffic it serves (operational). Occasionally, a jurisdiction will have assigned a functional classification to a roadway which differs from how it now functions relative to other roadways on the network. A brief discussion of how these differing functional classifications are accounted for in the Traffic Circulation section is provided below.

FUNCTIONAL CLASSIFICATION

Maintenance Jurisdiction

The State's functional classification system can be found in the Florida Transportation Code (Chapter 334, *Florida Statutes*), which is intended "to establish the responsibilities of the State, the counties, and municipalities in the planning and development of transportation systems serving the people of the State and to assure the development of an integrated, balanced statewide transportation system." In this context, functional classifications are used as a basis for assigning maintenance responsibility and do not necessarily reflect the capacity or operating characteristics of those roads.

State Highway System: The Interstate system of highways is classified by the U.S. Department of Transportation and maintained by the Florida Department of Transportation (FDOT). Limited Access State Road 570 (Polk Parkway) is operated by FDOT's Turnpike District. As of 2000, the FDOT maintained approximately 155 miles of principal arterial roadways (including Interstate 4 and the Polk Parkway) and 92 miles of minor arterial roadways within the Lakeland Planning Area

County Road System: The County road system consists of all collector roads in the unincorporated areas, all extensions of such collector roads into and through any incorporated areas, and all local roads in the unincorporated areas.

Within the Lakeland Planning Area, Polk County maintains 202 miles of collector roads, and all local roads outside of Lakeland's Corporate Limits. It should be noted that Polk County has not identified any of its roads as arterials.

City Street System: The City street system consists of all local roads within the municipality and all collector roads within the municipality that are not on the County road system. The City of Lakeland Public Works Department is responsible for maintaining approximately 62 miles of urban collector roads. Each time the City annexes land, the local roads in that area become the responsibility of the City. As of April 2001, the City maintained 270 miles of streets and alleys serving residential, commercial and industrial areas.

FDOT has the responsibility to classify all major roadways in the State. Although this used to be required at least once every five years, it now is done on an as needed or as requested basis. The exact time at which an individual road goes from one jurisdiction's maintenance responsibility to another's, such as from State to City, is determined through an agreement between the jurisdictions. Illustration III-1 depicts the jurisdictional responsibility of the major road network within the Lakeland Urban Area.

Operational Functional Classification

The “operational” functional classification of a roadway is the most important consideration from an analysis standpoint. It provides a more meaningful indication of the trip characteristics on that road and the capacities that determine the amount of traffic it can carry—it's not just an artificial classification assigned by a maintaining jurisdiction. In fact, the existing and future level-of-service analyses that are contained in this section reflect each roadway's operational functional classification. Illustration III-2 depicts the operating functional classification of this network.

The following defines the functional classifications that are used in the Lakeland Planning Area:

Arterial Roads: Chapter 334, *Florida Statutes*, defines an arterial as “a route providing service that is relatively continuous and of relatively high traffic volume, long average trip length, high operating speed, and high mobility importance. In addition, every United States (U.S.) numbered highway is an arterial road.” Arterial roadways are given the highest capacities since they are designed to carry the greatest amount of through traffic while generally providing a lower amount of access to adjacent land uses. Within the Lakeland Planning Area, arterial roadways are further classified as principal or minor.

Principal Arterial Roads: Routes which generally serve the major centers of activity of an urban area, the highest traffic volume corridors, and the longest trip purpose and carry a high proportion of the total urban area travel, on a minimum of mileage. The routes are integrated, both internally and between major rural connections. Principal arterial roads give the greatest emphasis to the through movement of vehicles, and the least amount of access to adjacent land uses. For purposes of this plan, all principal arterial roadways are maintained by FDOT.

It should be noted that freeways and expressways, such as Interstate 4 and State Road 570 (Polk Parkway) are classified as principal arterials. Such limited access facilities are solely intended to provide for the through movement of traffic, with no direct access to adjacent land uses. In fact, access to intersecting streets is permitted only at grade-separated interchanges.

The Florida Intrastate Highway System (FIHS) roadways in the Lakeland Area include Interstate 4 and the Polk Parkway, limited access roadways, and US 98 south of the Polk Parkway to Bartow. US 98 is considered to be a controlled-access roadway, subject to the requirements contained in the adopted US 98 Corridor Access Management Plan (CAMP). While FIHS highways are intended to serve longer, regional trips, access to intersecting roads can be provided at a controlled number of at-grade intersections. Access to adjacent properties are strictly controlled in order to allow for the continued safety movement of relatively high-speed traffic.

Minor Arterial Roads: Routes which generally interconnect with, and augment urban principal arterial routes and provide service to trips of shorter length and a lower level of travel mobility. Such routes include all arterials not classified as principal and contain facilities that place more emphasis on land access than the principal arterials. Examples in the Lakeland area include State Road 37 (South Florida Avenue) and CR 37B (Lakeland Highlands Road). For the purposes of this plan, minor arterials may be maintained by either state or a local government.

Collector Roads: Routes which generally are maintained by counties or cities and “provide service which is of moderately average traffic volume, moderately average trip length, and moderately average operating speed. Such a route also collects and distributes traffic between local roads or arterial roads and serves as a linkage between land access and mobility needs” (Chapter 334, F.S.). Most collector roads in the Lakeland Area have been identified as “major collectors”.

“Other” Collectors: A few collector roads in the Lakeland Area were given this classification to show that, while they are still collectors, they tend to have lower traffic volumes and lower typical travel speeds. These are streets on which the City would generally not encourage through-traffic movements and would generally not make capacity improvements. A good example of this type of collector is Success Avenue. This street serves as an important connection between Lake Hollingsworth Drive and Lake Morton Drive; however, it only traverses a residential area, has a relatively low amount of traffic and slow travel speeds. The City of Lakeland has even included Success Avenue in its traffic calming program.

Local Roads: Chapter 334, F.S., defines local roads as “a route providing service which is of relatively low average traffic volume, short average trip length or minimal through-traffic movements, and high land access for abutting property”. In short, local roads provide the greatest amount of access to adjacent properties and have the lowest vehicle capacities.

Roadway Typologies

Most jurisdictions that assign functional classification designations to their roadway network have traditionally focused on the type of traffic using the roadway and destinations served at the end of the route, with little consideration being given to the land development and types of transportation modes along the route. Publication of FHWA's *Flexibility in Highway Design* led to the understanding that linking transportation and land use and considering a community's character and urban form are instrumental to designing roadways. Several communities around the nation have adopted this approach and developed their own set of criteria for defining functional classification, considered to be part of the Context Sensitive Design (CSD) movement. The City of Lakeland adopted a supplementary functional classification system similar to those recently established for communities such as Charlotte, North Carolina and has termed them "roadway typologies" to avoid confusion with traditional functional classification terminology.

Roadway typologies, as shown on Illustration III-2A do not replace officially adopted operational functional classification designations or nomenclature used by local governments and FDOT since funding and engineering standards are tied to arterial, collector and local street designations. This is particularly true with regard to Federal-Aid designations that are developed in cooperation with the Polk TPO and approved by the FDOT and Federal Highway Administration. Lakeland's roadway typologies will be critical in determining the most appropriate multi-modal roadway cross-sections for a particular roadway segment; access management classification is enforced by the City's Land Development Regulations.

As of 2009, the City of Lakeland embarked on the creation of a form-based land development code, which will supplement and/or replace existing Land Development Regulations to achieve design standards appropriate to the various development patterns found in urban/central city, suburban or rural area types throughout the Lakeland Planning Area. The roadway typologies identified by the City of Lakeland are intended to relate to these development patterns and area types. As a preliminary step to formulating citywide form based design standards, four primary development pattern types were identified, including:

- *Neighborhoods* (concentrated residential uses);
- *Districts* (single-use places such as the medical corridor around Lakeland Regional Medical Center or industrial uses around the Publix Industrial Complex on US 92 West);
- *Centers* (mixed or multi-use places such as Downtown Lakeland and Lakeside Village); and
- *Corridors* (linear concentrations of development such as Memorial Boulevard, South Florida Avenue and US 98 North).

In support of the on-going nationwide “complete streets” movement and the move towards multi-modal transportation concurrency requirements in Florida, the roadway typologies adopted by the City of Lakeland recognize the importance of all transportation modes by identifying specific facilities that must be considered for inclusion in the design of all public and private road projects and adjacent development. A description of each typology is included below, with associated cross-sections being shown in Illustrations III-2B(1) and III-2B(2). It is critical to note that while the cross-sections shown are desired for new or improved roadways; the specific final design of a roadway segment approved by the City, County and FDOT will depend on placement of utilities, right-of-way and environmental constraints, available funding and permitting requirements.

Typology Descriptions

Freeways/Expressways - High-speed, limited access thoroughfares with only grade separated interchanges and no pedestrian access. Includes toll ways. May include limited landscaping on each side and/or median.

- Comparable Functional Classification: *Principal Arterial*
- Likely Ownership/Maintenance: *State*
- Relationship to Design Districts: *N/A*
- Existing/Planned Transit: *Inter-county Bus or Rail, as contained in master plans for Interstate 4 in Polk County and the Tampa Bay Regional Transportation Authority.*
- Key Roadways in Classification: *Interstate 4 and SR 570 (Polk Parkway)*

Type I - Primary function is moving through traffic, including significant freight to/from intermodal facilities. Design speeds are typically 45 mph or greater. Also provide connectivity between urban core and freeways/expressways. Typically four to six lanes with shoulders, these roadways have wide landscaped medians, separate bike and pedestrian systems, and controlled access. Access management techniques such as cross-connections, services roads or improvements to parallel corridors with lower classifications will be required as part of new development or re-development activities in these corridors. Bus pull-outs should be constructed at all new or retrofitted stop locations on Type I roadways.

- Comparable Functional Classification: *Principal Arterial, Minor Arterial*
- Likely Ownership/Maintenance: *State*
- Relationship to Design Districts: *Provides high-capacity connections to Centers and between Districts*
- Existing/Planned Transit: *Premium - Bus Rapid Transit, Express Bus, Service Enhancements (Reduced Headways, Special Service Hours, etc.), Regular Fixed-Route Bus.*

- Key Roadways in Classification: *US 98, SR 33 (North of Granada), County Line Road, SR 563 (Harden Boulevard, south of Ariana Street), West Pipkin Road (west of planned SR 563 Extension) and SR 546 (Memorial Boulevard, west of Wabash Avenue)*

Type II - Emphasizes development placed away from streets and driveways that are semi-controlled. Design speeds are typically between 35 mph and 55 mph. These streets are typically four lanes (existing or planned) with sidewalks, bike lanes, and wide landscaped medians.

- Comparable Functional Classification: *Principal Arterial, Minor Arterial, Urban/Rural Major Collector*
- Likely Ownership/Maintenance: *State/County/City*
- Relationship to Design Districts: *Service within Corridors and Neighborhoods*
- Existing/Planned Transit: *Express Bus, Service Enhancements, Regular Fixed-Route Bus*
- Key Roadways in Classification: *SR 37 (South Florida Avenue, south of Ariana), SR 539 (Kathleen Road), George Jenkins Boulevard (west of Sloan), SR 572 and CR 37B (Lakeland Highlands Road).*

Type III - Designed to encourage transit use, enhance pedestrian circulation and provide access to adjoining properties. Design speeds are typically between 30 mph and 45 mph. The streets are typically two to four lanes with sidewalks, bike lanes, planting strips and frequent bus stops. On-street parking is possible in conjunction with re-development at strategic locations in the urban core. In the urban core, roadway capacity is constrained and buildings are placed close to the street. In suburban areas, these roadways are typically two lanes wide with a mix of residential and non-residential uses. Suburban non-residential uses typically contain a small area or single aisle of parking between the principal building and street instead of on-street parking.

- Comparable Functional Classification: *Minor Arterial, Urban/Rural Major Collector*
- Likely Ownership/Maintenance: *City/County*
- Relationship to Design Districts: *Provides connections to Neighborhood areas.*
- Existing/Planned Transit: *Regular Fixed-Route*
- Key Roadways in Classification: *SR 37 (South Florida Avenue in Downtown and Dixieland Districts), Edgewood Drive (east of Lakeland Highlands Road), Cleveland Heights Boulevard/Scott Lake Road (south of Westover Street).*

Special Sub-Categories of Type III:

Type III-a (Main Streets) - Designed with focus on pedestrian circulation and comfort. Buildings are placed close to the street; parking is on-street or placed at the back of the building and roadway capacity is constrained. Design speeds are approximately 30 mph. Design elements may include two travel lanes, wide sidewalks, extensive amenities, closely spaced bus stops, and pedestrian level lighting. These streets typically occur downtown or in highly walkable mixed use town center districts.

- Comparable Functional Classification: *Urban Collector, Local*
- Likely Ownership/Maintenance: *City*
- Relationship to Design Districts: *Within Centers*
- Existing/Planned Transit: *Regular Fixed-Route, Circulator Service*
- Key Roadways in Classification: *Main Street (west of US 98), Massachusetts Avenue (south of US 98), Orange Street, Kentucky Avenue*

Type III-b (Community Streets) – Tend to link the numerous lakes, community centers and parks in Lakeland. These streets should be the most complete in order to accommodate all modes of transportation. Design speeds are typically between 30 mph and 40 mph. Design elements would include on-street parking (urban core, only), wide sidewalks, pedestrian crossings/refuge islands, bike lanes, significant canopy landscaping and other amenities supportive of transit. Within the urban core, this street type is typically identified as a component of the City's Lake-to-Lake Greenway Connector Network. These streets could be identified as scenic byways, should the City of Lakeland or Polk County develop such a program in the future.

- Key Roadways in Classification: *Success Avenue, Lemon Street, Lake Hollingsworth Drive, West Lake Parker Avenue, Dr. Martin Luther King Avenue, East Main Street, Longfellow Boulevard, Parker Street*

Suburban Canopy Roads - This designation is intended to preserve the character of roadways located within suburban or rural areas that are subject to development pressure. This designation, as integrated into the LDRs, will protect tree canopy within right-of-way and will, prohibit widening beyond operational and safety improvements. Parallel corridors planned to accommodate automobile travel demand.

- Key Roadways in Classification: *Medulla Road, Yates Road, South Pipkin/Pipkin Creek Road*

Local Streets- Primarily neighborhood streets intended to provide the highest accessibility to local land uses, with special emphasis on bicycle/pedestrian movements. Design speeds are typically between 20 mph and 30 mph. The required minimum roadway width is 20-feet with on-street parking being allowed if managed to allow one open lane of travel at any given point for emergency and service vehicle access. This street type coincides with the existing local street type designation.

- Likely Ownership/Maintenance: *City/County*

- Relationship to Design Districts: *Within any District.*
- Existing/Planned Transit: *Bicycle/Pedestrian connections to transit services.*

TRAFFIC CIRCULATION SYSTEM (USED FOR LEVEL-OF-SERVICE ANALYSES)

The traffic circulation system is compromised of 310 directional roadway links or segments. The City, per Rule 9J-5, FAC, must evaluate peak hour level of service standards which requires analysis of volume on each direction on a north-south or east-west segment. The State maintains 100 directional roadway links classified as arterials, of which 20 are “freeways/expressways” classified as principal arterials, 32 are non-freeway principal arterials and 48 are minor arterials.

Polk County maintains 124 directional roadway links. For the purpose of this plan, 22 are classified as “minor arterials”, 82 as “major collectors”, and 20 as “other collectors”.

The City maintains 84 directional roadway links. For the purpose of this plan, 36 are classified as “major collectors”; 34 are classified as “minor arterials”; and 14 are classified as “other collectors”.

NUMBER OF LANES

Illustration III-3 shows the number of lanes on the existing traffic circulation network. Most of the State maintained roadways in Lakeland are four lane roadways. Of the 100 directional roadway links maintained by the State, 70 links are four lane, 22 links are two lane, 6 links are six lane, and 2 links are eight lane. Most of the County maintained roadways are two lane facilities. Of the 124 County directional roadway links in the Lakeland Area, 120 are two lane and only six are four lane. There are 84 City maintained directional links. Of these links, 68 are two lane and 16 are four lane.

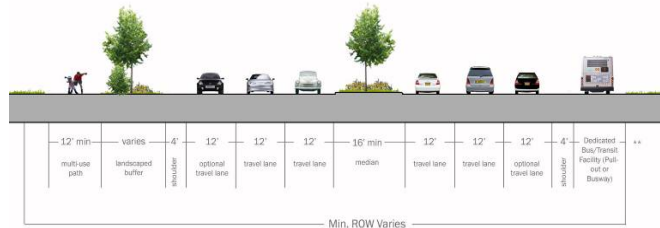
Illustration III-1: Existing Transportation System
2000 Functional Class (Jurisdictional Maintenance)

Illustration III-2: Existing Transportation System 2009 Operational Classification

Illustration III-2A: Roadway Typology Designations

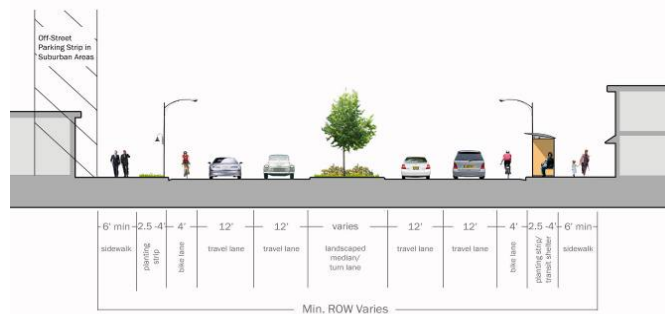
ILLUSTRATION III-2B(1) 2009 Roadway Typology Cross-Sections

TYPE I (ARTERIAL)

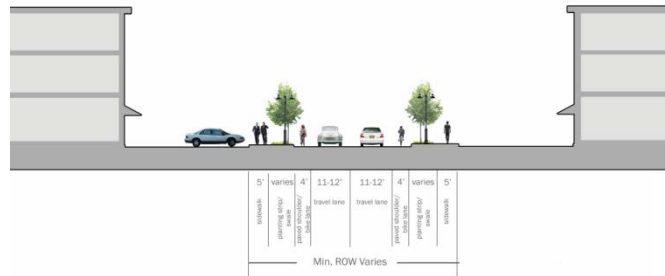


** Cross Access and/or Service Road on Adjacent Properties

TYPE II (ARTERIAL - COLLECTOR)



TYPE III (MINOR ARTERIAL/COLLECTOR)
SUBURBAN



TYPE III (MINOR ARTERIAL/COLLECTOR)
URBAN CORE

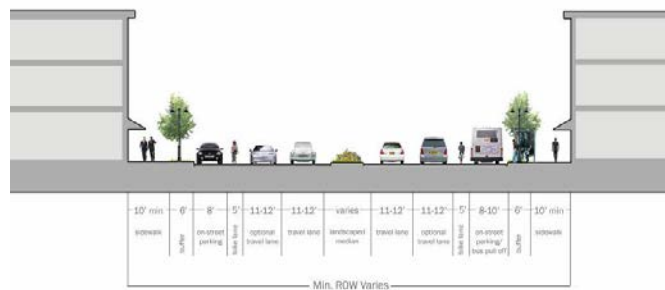
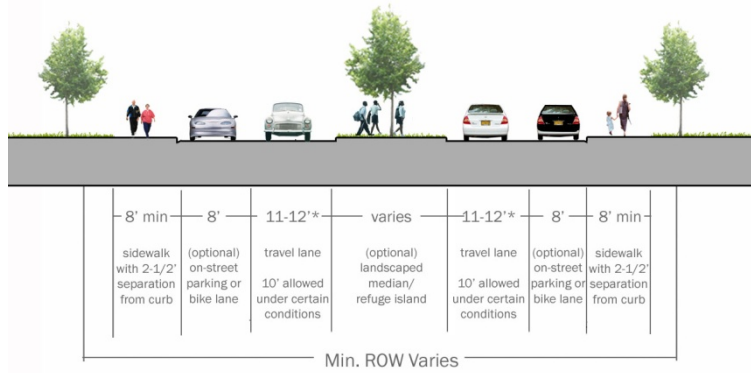
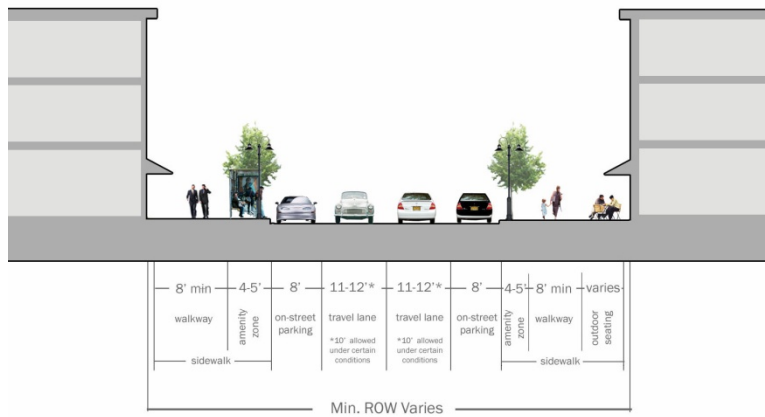


ILLUSTRATION III-2B(2) 2009 Roadway Typology Cross-Sections

COMMUNITY STREET



MAIN STREET



LOCAL STREET

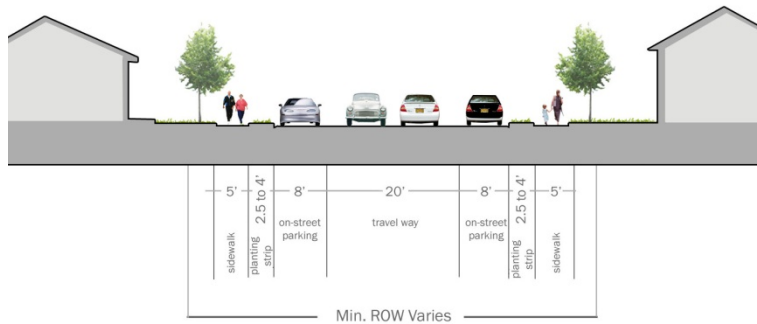


Illustration III-3: Existing Transportation System
Number Of Lanes (2000)

LEVEL OF SERVICE STANDARDS

The maintenance of acceptable levels of service on roadways is essential to preserving and enhancing interregional and interstate mobility, increasing transportation efficiency, and coordinating transportation and land development. Levels of service (LOS) are qualitative measures describing operating conditions of highways and are given designations from A through F, with A representing the best operating conditions of highways and F, the worst. Time delay and very slow speeds are predictors of failing levels of service. Definitions of each level are as follows:

- A = represents free flow.
- B = is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable.
- C = is in the range of stable flow, but marks the beginning of the range of flow in which the operation of users becomes significantly affected by interactions with other users in the traffic stream.
- D = represents high-density, but stable flow.
- E = represents operating conditions at or near the capacity level with flows often breaking down resulting in significant delays.
- F = represents forced or breakdown flow of traffic with regular delays.

Level of service standards are used to determine deficiencies, backlogs and State-wide minimums that help guide and assist the development of urban area long-range transportation plans and to help determine project priorities. The FDOT has adopted level of service standards for the Florida Intrastate Highway System (FIHS) related to number of lanes and type of area (urban, transitioning, or rural) as listed in Table III-1. These level of service standards only apply to those roads which are maintained by FDOT, and represent the minimum acceptable to the State.

**TABLE III-1
STATEWIDE MINIMUM LEVEL OF SERVICE STANDARDS
FOR THE STATE HIGHWAY SYSTEM¹**

ROADWAY TYPE	TRANSITIONING URBANIZED AREAS ² , URBAN AREAS, OR COMMUNITIES	URBANIZED AREAS ³ UNDER 500,000	URBANIZED AREAS OVER 500,000
INTRASTATE Limited Access Highway (Freeway) Controlled Access Highway	C C	C (D) C	D (E) D
OTHER STATE ROADS Other Multilane Two-Lane	C C	D D	D D

NOTE: The Polk Census adjusted urbanized area, of which Lakeland is a part, is under 500,000 population.

Source: Florida Department of Transportation, 1998 Level of Service Handbook. The full State level of service standards table and all explanatory notes are included as Appendix III-Three of the Technical Support Document.

¹Level of service standards inside of parentheses apply to general use lanes only when exclusive through lanes exist.

²Transitioning urbanized areas are the areas outside urbanized areas that are planned to be included within the urbanized areas within the next 20 years based primarily on the U.S. Bureau of Census urbanized criteria of a population density of at least 1,000 people per square mile.

³Urbanized areas are the 1990 urbanized areas designated by the U.S. Bureau of Census as well as the surrounding geographical areas as agreed upon by the FDOT, Metropolitan Planning Organization (MPO), and Federal Highway Administration (FHWA), commonly called FHWA Urbanized Area Boundaries. The over or under 500,000 classifications distinguish urbanized areas with a population over or under 500,000 based on the 1990 U.S. Census.

It should be noted that level of service standards reflect minimum acceptable levels of service. Desirable levels of service are higher in rural areas than in urban and urbanizing areas. This is intended to promote development within urbanized areas and for the efficient interregional movement of people and goods.

Table III-2 presents level of service standards for roadways as part of a multi-modal network within the City. These standards were developed initially by the Polk TPO in the update of the *Polk County Long-Range Transportation Plan* to 2025. The standards allow for a lower level of service for roadway segments where transit service is present on an hourly or 30-minute frequency and where there are sidewalks. The Lakeland bus system incorporates bike racks on the front of most buses operating inside the City. These bicycle racks are used by at least 1% of the total annual number of riders of LAMTD. The City of Lakeland is fortunate to have an extensive sidewalk network within the downtown and “core” area of the City to complement the use of transit. Thus, Lakeland can take advantage of each of the new proposed multi-modal level of service standards shown in the following table.

**TABLE III-2
MULTI-MODAL TRANSPORTATION LEVEL OF SERVICE STANDARDS**

Area			Minimum Standard (Peak Hour/Dir)		
Urban Transit Service Area			LOS “D”		
<u>Multi-Modal Transportation Districts</u>					
The Multi-Modal Transportation Districts, located within the Urban Transit Service Area, coincide with the service area of the identified fixed-route transit service.					
Standard	Highway		Transit	Pedestrian	Bicycle
	Minimum Standard	Duration			
M1	LOS “D” peak direction	Average of two highest peak hours	60 minute headway (Category II)	Sidewalk access to transit stops	Bike racks on buses
M2	LOS “E” peak direction	Average of two highest peak hours	30 minute headway (Category I)	Sidewalk access to transit stops	Bike racks on buses Bike route/system
M3	Not Applicable	Not Applicable	30 minute headway (Category I)	Extensive Sidewalk Network	Bike racks on buses Bike route/system
			route coverage: area within 1/4 mile of route		

Source: Polk County TPO, adopted December 7, 2000.

EXISTING LEVELS OF SERVICE

Roads with levels of service A, B, C or D are considered to be operating at an acceptable level of service. Historically, roads operating at level of service E and F were considered to be operating at unacceptable levels of service. The multi-modal level of service standards allow alternative modes of transportation to be emphasized where the multi-modal network is most integrated, such as the Central Business District, and alleviates the level of service concerns on some roadway links which would otherwise be shown as "failing."

Existing levels of service were determined by using 2000 average annual daily traffic counts and entering these into computer spreadsheets developed the Polk County Transportation Planning Organization (TPO), which is the Metropolitan Planning Organization for the Lakeland and Winter Haven Urbanized Areas. This predicts the current delay motorists are experiencing on roads and, where it is a state facility, uses the State level of service criteria to evaluate these roadways. Sources for current average daily traffic counts include: the Florida Department of Transportation; the Polk County TPO and its consultant, Southern Traffic Services, Inc.; and the City of Lakeland Public Works Department.

The Lakeland Urban Area roadway network is comprised of 310 “directional links” (see discussion under “Functional Classification”). The State system of 100 directional roadway links had 16 links operating at the minimum level of service (LOS) standard in 2000. Four links were operating below the multi-modal adopted LOS standard. The County system of 124 directional roadway links had 11 links operating at the minimum level of service in 2000 and eight links fell below the multi-modal adopted LOS standard. The City system of 82 directional roadway links had no links operating at the minimum level of service in 2000 and only one link, Cleveland Heights Boulevard, which fell below the multi-modal adopted LOS standard. It is important to monitor roadways which are at the minimum LOS standard, since they may quickly deteriorate below acceptable LOS. Levels of service on the existing traffic circulation system (for 2000) are shown on Illustration III-4, and listed in Table III-3.

Within the Lakeland Planning Area as of 2000, several arterial routes were experiencing congestion. There were deficits in both east to west and north to south laneage causing significant delays to motorists, especially at the busiest hour of the day (peak hour). In this category, South Florida Avenue, Memorial Boulevard and Lakeland Highlands Road operated below an acceptable level of service.

Florida Avenue (SR 37, SR 35, and US 98N) is the primary north to south route dividing Lakeland into east and west. This vital arterial road connects downtown Lakeland with suburbs to the south and to the regional shopping areas to the north. For many years this road has experienced increasing traffic congestion exacerbated by the continued development of commercial strips (shopping centers) to the south. The level of service on this important arterial has been decreased by a combination of the high number of trips generated by these commercial strips, the proliferation of driveways and their associated turning movements, increased traffic from through trips, and commuting patterns from residences in the Highlands (south of the City) to downtown work sites. Improving or stabilizing the level of service on Florida Avenue will require new north-south arterials, such as the Wabash Avenue extension.

Other major roads experiencing year 2000 level of service included Combee Road, Cleveland Heights Boulevard, Lakeland Highlands Road, Lake Miriam Drive, and Memorial Boulevard. A listing of levels of service for all arterial and collector road links in the City and selected road links outside the 2000/2001 City limits is included as Appendix III-One in the Technical Support Document.

Illustration III-4: Existing Transportation System
2000 Roadways Level of Service (Peak Hour and Direction)

**TABLE III-3
2000 ROADWAYS**

YEAR 2000 AT STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
E	Interstate 4	Hillsborough County Line	SR 570	2,989	C	3,950	C	FIHS
E	Interstate 4	SR 546	SR 539	1,888	C	2,570	C	FIHS
W	Interstate 4	SR 546	SR 539	2,289	C	2,570	C	FIHS
E	Interstate 4	SR 539	US 98	2,454	C	2,570	C	FIHS
W	Interstate 4	SR 539	US 98	2,024	C	2,570	C	FIHS
E	Interstate 4	US 98	Socrum Loop Rd	2,454	C	2,570	C	FIHS
W	Interstate 4	US 98	Socrum Loop Rd	2,024	C	2,570	C	FIHS
E	Interstate 4	Socrum Loop Rd	SR 33	1,888	C	2,570	C	FIHS
W	Interstate 4	Socrum Loop Rd	SR 33	2,289	C	2,570	C	FIHS
E	Interstate 4	SR 33	SR 559	1,938	C	2,570	C	FIHS
W	Interstate 4	SR 33	SR 559	2,349	C	2,570	C	FIHS
N	SR 659 (Combee Rd)	US 92	CR 546	746	D	790	D	M1
S	SR 659 (Combee Rd)	US 92	CR 546	615	D	790	D	M1
E	US 92	SR 659	SR 655	1,812	D	1,850	D	M1
N	US 98	Lyle Parkway	CR 540A	1,555	C	1,750	C	FIHS
S	US 98	Lyle Parkway	CR 540A	1,283	C	1,750	C	FIHS
N	US 98	CR 540A	SR 540	1,610	C	1,750	C	FIHS
S	US 98	CR 540A	SR 540	1,328	C	1,750	C	FIHS
	COUNTY ROAD							
S	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	445	D	608	D	D
S	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	634	D	760	D	D
N	CR 37B (Lakeland Highlands Rd)	CR 540A	Polk Parkway	536	D	760	D	D
S	CR 37B (Lakeland Highlands Rd)	CR 540A	Polk Parkway	746	D	760	D	D
W	CR 540 (Clubhouse Rd)	CR 37B	US 98	527	D	760	D	D
W	CR 540A (Central Barn Rd)	SR 37	CR 37B	863	D	880	D	D
N	CR 655 (Berkley Rd)	CR 546	US 92	744	D	760	D	M1
S	CR 655 (Berkley Rd)	CR 546	US 92	566	D	760	D	M1
N	East Lake Parker Dr	US 92	Old Combee Rd	256	D	448	D	M1
S	East Lake Parker Dr	US 92	Old Combee Rd	284	D	448	D	M1
W	Lake Miriam Dr	SR 37	CR 37B	528	D	760	D	M1
W	Old Polk City Rd	CR 582	Walt Williams Rd	533	D	608	D	D

YEAR 2000 BELOW STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
S	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	1,891	F	1,810	E	M2
S	SR 37 (Florida Ave)	SR 570	Ariana St	1,847	F	1,810	E	M3*
N	SR 659 (Combee Rd)	US 98	US 92	879	F	850	E	M2
E	US 92 (New Tampa Hwy)	SR 572	Wabash Ave	968	F	880	E	M2
W	Us 92/98 (Memorial Blvd)	Florida Ave	Lake Parker Ave	2,059	F	1,810	E	M3*
	COUNTY ROAD							
N	CR 35A (Kathleen Rd)	I-4	CR 542A (Galloway Rd)	914	F	789	E	M2
N	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	1,006	F	608	D	D
N	CR 37B (Lakeland Highlands Rd)	Polk Parkway	Edgewood Dr	888	F	880	D	M1
S	CR 37B (Lakeland Highlands Rd)	Polk Parkway	Edgewood Dr	1,006	F	880	D	M1
N	CR 542A (Galloway Rd)	10 th St	CR 35A	885	F	664	E	M2
E	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	717	F	704	E	M2
W	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	773	F	704	E	M2
E	Lake Miriam Dr	SR 37	CR 37B	791	F	760	D	M1
	CITY ROAD							
S	Cleveland Heights Blvd	Hallam Dr	Westover St	1,088	F	850	E	M2
W	Edgewood Dr	SR 37 (Florida Ave)	CR 37B (Lakeland Highlands Rd)	905	F	880	E	M3*
W	Main St	Lake Beulah Dr	SR 37 (Florida Ave)	540	F	396	E	M3*

Source: Post Buckley Schuh & Jernigan analysis, 2001.

* Even though these segments fail on a roadway level of service standard, they meet the City's multi-modal level of service standard.

FUTURE LEVELS OF SERVICE

Future levels of service in the Lakeland Planning Area have been determined by projecting existing traffic volumes to five, ten and fifteen year periods using a trend method. A computer spreadsheet was used to project trends. In addition to projected traffic volumes, anticipated road improvements were used to determine probable future levels of service. Since it is impossible to correct all road deficiencies, select roads must be chosen for improvement.

The City analyzed level of service both with projected roadway improvements and without such network improvements. As would be expected, the analysis indicated many more network level of service failures if no improvements were funded and implemented. That analysis is contained in Appendix III-Two of the Technical Support Document, showing which roadway links are projected to be at or below minimum level of service standards in 2005, 2010, and 2015 without future roadway improvements. The analysis of roadway level of service projections with roadway improvements implemented is discussed below.

FUTURE NUMBER OF LANES—2005

Most of the State maintained roadways in Lakeland will remain four lane roadways. Of the 100 directional roadway links maintained by the State, 58 links are four lane, 22 links are two lane, 18 links are six lane, and 2 links eight lane. Most of the County maintained roadways will remain two lane facilities. Of the 124 directional roadway links in the Lakeland Area, 104 are two lane and only 20 are four lane. There are 84 City maintained directional links. Of these links, 66 are two lane and 18 are four lane.

2005 LEVELS OF SERVICE WITH PLANNED IMPROVEMENTS

If improvements are made to the existing roadway network, there will be a noticeable improvement to the level of service on a number of roads. As indicated in Table III-4, by 2005 the State roadway system will have 12 directional links at the minimum level of service. Six links will be below the adopted LOS standard. The County roadway system will have 12 directional links at the minimum level of service. Seven links will be below the adopted LOS standard. The City roadway system will continue to have no links at the minimum level of service and only Cleveland Heights Boulevard falls below the adopted LOS standard.

**TABLE III-4
2005 ROADWAYS WITH IMPROVEMENTS**

YEAR 2005 AT STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
E	Interstate 4	Hillsborough County Line	SR 570	3,300	C	3,950	C	FIHS
W	Interstate 4	Hillsborough County Line	SR 570	2,722	C	3,950	C	FIHS
W	Interstate 4	SR 570	SR 546	2,847	C	3,950	C	FIHS
E	Interstate 4	SR 539	US 98	2,709	C	3,950	C	FIHS
E	Interstate 4	US 98	Socrum Loop Rd	2,709	C	3,950	C	FIHS
N	SR 659 (Combee Rd)	US 92	CR 546	784	D	790	D	M1
S	SR 659 (Combee Rd)	US 92	CR 546	646	D	790	D	M1
W	US 92/98 (Memorial Blvd)	Lake Parker Ave	SR 659	1,733	E	1,810	E	M2
N	US 98	Lyle Pkwy	CR 540A	1,717	C	1,750	C	FIHS
S	US 98	Lyle Pkwy	CR 540A	1,416	C	1,750	C	FIHS
N	US 98	CR 540A	SR 540	1,466	C	1,750	C	FIHS
S	US 98	Edgewood Dr	Lake Parker Ave	1,796	E	1,810	E	M3
	COUNTY ROAD							
S	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	468	D	608	D	D
S	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	666	D	760	D	D
S	CR 37B (Lakeland Highlands Rd)	CR 540A	Polk Parkway	592	D	760	D	D
W	CR 540 (Clubhouse Rd)	CR 37B	US 98	554	D	760	D	D
W	CR 546 (Saddle Creek Rd/Old Dixie Hwy)	SR 659	Lake Ariana Blvd	459	D	608	D	D
N	CR 582 (Socrum Loop Rd)	SR 33	Daughtery Rd E	1,703	E	1,750	E	M2
N	East Lake Parker Dr	US 92	Old Combee Rd	269	D	448	D	M1
S	East Lake Parker Dr	US 92	Old Combee Rd	298	D	448	D	M1
W	Lake Miriam Dr	SR 37	CR 37B	555	D	760	D	M1
E	Old Polk City Rd	CR 582	Walt Williams Rd	560	D	608	D	D
N	Reynolds Rd	SR 540	US 92	450	D	608	D	M1
E	Skyview Dr	SR 659	Reynolds Rd	466	D	760	D	M1

YEAR 2005 BELOW STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
S	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	1,988	F	1,810	E	M2
S	SR 37 (Florida Ave)	SR 570	Ariana St	1,941	F	1,810	E	M3*
N	SR 659 (Combee Rd)	US 98	US 92	924	F	850	E	M2
W	US 92 (New Tampa Hwy)	SR 572	Wabash Ave	1,017	F	880	E	M2
W	US 92/98 (Memorial Blvd)	Florida Ave	Lake Parker Ave	2,059	F	1,810	E	M3*
E	US 92	SR 659	SR 655	1,904	F	1,850	E	M1
N	US 98	CR 540A	SR 540	1,777	F	1,750	C	FIHS
S	US 98	SR 540	Edgewood Dr	1,879	F	1,850	E	M2
N	US 98S	Memorial Blvd	I-4	1,853	F	1,850	E	M3*
	COUNTY ROAD							
N	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	1,057	F	608	D	D
S	CR 37B (Lakeland Highlands Rd)	CR 540A	Polk Parkway	824	F	760	D	D
N	CR 542A (Galloway Rd)	10 th St	CR 35A	930	F	664	E	M2
E	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	753	F	704	E	M2
W	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	813	F	704	E	M2
E	Lake Miriam Dr	SR 37	CR 37B	832	F	760	D	M1
W	Pipkin Rd W	Pipkin Rd S	SR 37	673	F	664	E	M2
	CITY ROAD							
S	Cleveland Heights Blvd	Hallam Dr	Westover St	1,144	F	850	E	M2
W	Edgewood Dr	SR 37 (Florida Ave)	CR 37B (Lakeland Highlands Rd)	951	F	880	E	M3*
W	Main St	Lake Beulah Dr	SR 37 (Florida Ave)	568	F	396	E	M3*

Source: Post Buckley Schuh & Jernigan analysis, 2001.

* Even though these segments fail on a roadway level of service standard, they meet the City's multi-modal level of service standard.

FUTURE FUNCTIONAL CLASSIFICATION – 2010

Illustrations III-5 and III-6 depict the 2010 functional classification of the roadway network for purposes of maintenance and operating characteristics respectively.

FUTURE NUMBER OF LANES – 2010

Illustration III-7 depicts the expected number of lanes on the 2010 traffic circulation network. Most of the State maintained roadways in Lakeland will remain four lane roadways. Of the 100 directional roadway links maintained by the State, 52 links are four lane, 22 links are two lane, 24 links are six lane, and 2 links eight lane. Most of the County maintained roadways will remain two lane facilities. Of the 124 directional roadway links in the Lakeland Area, 102 are two lane and only 22 are four lane. There are 84 City maintained directional links. Of these links, 66 are two lane and 18 are four lane.

2010 LEVELS OF SERVICE WITH PLANNED IMPROVEMENTS

Illustration III-8 depicts the expected levels of service on most roadway links in Year 2010. Note that some roadway segments have a combined hatching because the level of service analysis is for each direction on that segment. For example, Kathleen Road shows a hatching of LOS “D” and “F” for the p.m. peak hour, peak season, by direction. See Table III-5 for specifics on the directional links at or below LOS standards and/or see Appendix III-ONE(A), projected LOS without any roadway improvements and Appendix III-ONE(B), projected LOS with anticipated improvements. Appendix III-One is found in the Technical Support Document.

If improvements are made to the existing roadway network, the number of failing roadways is not expected to increase. As indicated in Table III-5, by 2010 the State roadway system will have 13 directional links at the minimum level of service. Six links will be below the adopted LOS standard. The County roadway system will have 14 directional links at the minimum level of service. Seven links will be below the adopted LOS standard. The City roadway system will have one link at the minimum level of service and Cleveland Heights Boulevard will continue to be the only link falling below the LOS standard.

**TABLE III-5
2010 ROADWAYS WITH IMPROVEMENTS**

YEAR 2010 AT STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
E	Interstate 4	Hillsborough County Line	SR 570	3,643	C	3,950	C	FIHS
W	Interstate 4	Hillsborough County Line	SR 570	3,005	C	3,950	C	FIHS
W	Interstate 4	SR 570	SR 546	3,143	C	2,570	C	FIHS
W	Interstate 4	SR 546	SR 539	2,790	C	3,950	C	FIHS
E	Interstate 4	SR 539	US 98	2,991	C	3,950	C	FIHS
E	Interstate 4	US 98	Socrum Loop Rd	2,991	C	3,950	C	FIHS
W	Interstate 4	Socrum Loop Rd	SR 33	2,790	C	3,950	C	FIHS
W	Interstate 4	SR 33	SR 559	2,863	C	3,950	C	FIHS
N	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	1,723	C	1,810	E	M2
S	SR 659 (Combee Rd)	US 98	US 92	801	E	850	E	M2
S	SR 659 (Combee Rd)	US 92	CR 546	679	D	790	D	M1
N	US 98	Lyle Pkwy	CR 540A	1,896	C	2,640	C	FIHS
N	US 98	CR 540A	SR 540	1,962	C	2,640	C	FIHS
	COUNTY ROAD							
S	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	492	D	608	D	D
N	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	463	D	760	D	D
S	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	700	D	760	D	D
W	CR 540 (Clubhouse Rd)	CR 37B	US 98	582	D	760	D	D
W	CR 546 (Saddle Creek Rd/Old Dixie Hwy)	SR 659	Lake Ariana Blvd	482	D	608	D	D
N	CR 655 (Berkley Rd)	SR 33	CR 546	460	D	760	D	D
N	East Lake Parker Dr	US 92	Old Combee Rd	282	D	448	D	M1
S	East Lake Parker Dr	US 92	Old Combee Rd	313	D	448	D	M1
W	Lake Miriam Dr	SR 37	CR 37B	583	D	760	D	M1
E	Old Polk City Rd	CR 582	Walt Williams Rd	455	D	608	D	D
W	Old Polk City Rd	CR 582	Walt Williams Rd	589	D	608	D	D
N	Reynolds Rd	SR 540	US 92	473	D	608	D	M1
E	Skyview Dr	SR 659	Reynolds Rd	514	D	760	D	M1
N	Yates Rd	Ewell Rd	Medulla Rd	259	D	448	D	D
	CITY ROAD							
S	Cleveland Heights Blvd	Hallam Dr	Westover St	801	E	850	E	M2

YEAR 2010 BELOW STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
S	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	2,089	F	1,810	E	M2
S	SR 37 (Florida Ave)	SR 570	Ariana St	2,040	F	1,810	E	M3*
N	SR 659 (Combee Rd)	US 98	US 92	971	F	850	E	M2
N	SR 659 (Combee Rd)	US 92	CR 546	824	F	790	D	M1
E	US 92 (New Tampa Hwy)	SR 572	Wabash Ave	1,069	F	880	E	M2
W	US 92 (New Tampa Hwy)	SR 572	Wabash Ave	882	F	880	E	M2
W	US 92/98 (Memorial Blvd)	Florida Ave	Lake Parker Ave	2,059	F	1,810	E	M3*
W	US 92/98 (Memorial Blvd)	Lake Parker Ave	SR 659	1,822	F	1,810	E	M2
E	US 92	SR 659	SR 655	2,002	F	1,850	E	M1
S	US 98	Edgewood Dr	Main St	1,887	F	1,810	E	M3*
N	US 98	Memorial Blvd	I-4	1,947	F	1,850	E	M3*
	COUNTY ROAD							
N	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	1,111	F	608	D	D
N	CR 542A (Galloway Rd)	10 th St	CR 35A	978	F	664	E	M2
S	CR 582 (Socrum Loop Rd)	SR 33	Daughtery Rd E	1,789	F	1,750	E	M2
N	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	792	F	704	E	M2
S	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	854	F	704	E	M2
E	Lake Miriam Dr	SR 37	CR 37B	874	F	760	D	M1
W	Pipkin Rd W	Pipkin Rd S	SR 37	708	F	664	E	M2
	CITY ROAD							
S	Cleveland Heights Blvd	Hallam Dr	Westover St	1,202	F	850	E	M2
W	Edgewood Dr	SR 37 (Florida Ave)	CR 37B (Lakeland Highlands Rd)	1,000	F	880	E	M3*
W	Main St	Lake Beulah Dr	SR 37 (Florida Ave)	597	F	396	E	M3*

Source: Post Buckley Schuh & Jernigan analysis, 2001.

* Even though these segments fail on a roadway level of service standard, they meet the City's multi-modal level of service standard.

Illustration III-5: Future Transportation System
2010 Functional Classification (Jurisdictional Maintenance)

Illustration III-6: Future Transportation System
2010 Operational Classification

Illustration III-7: Future Transportation System
Number of Lanes (2010)

Illustration III-8: Future Transportation System
2010 Roadways Level of Service (Peak Hour and Direction)

FUTURE NUMBER OF LANES—2015

Most of the State maintained roadways in Lakeland will remain four lane roadways. Of the 100 directional roadway links maintained by the State, 54 links are anticipated to be four lane, 18 links are two lane, 26 links are six lane, and 2 links eight lane. Most of the County maintained roadways are two lane facilities. Of the 124 directional roadway links in the Lakeland Area, 100 are two lane and only 24 are four lane. There are 82 City maintained directional links. Of these links, 66 are two lane and 18 are four lane.

2015 LEVELS OF SERVICE WITH PLANNED IMPROVEMENTS

If improvements are made to the existing roadway network, a limited number of roadways will fail. As indicated in Table III-6, by 2015 the State roadway system will have 17 directional links at the minimum level of service. Nine links will be below the adopted LOS standard. The County roadway system will have 16 directional links at the minimum level of service. Nine links will be below the adopted LOS standard. The City roadway system will continue to have one link at the minimum level of service and Cleveland Heights Boulevard will continue to be the only link falling below the LOS standard.

**TABLE III-6
2015 ROADWAYS WITH IMPROVEMENTS**

YEAR 2015 AT STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
W	Interstate 4	Hillsborough County Line	SR 570	3,318	C	3,950	C	FIHS
E	Interstate 4	SR 570	SR 546	2,862	C	3,950	C	FIHS
W	Interstate 4	SR 570	SR 546	3,470	C	3,950	C	FIHS
W	Interstate 4	SR 546	SR 539	3,080	C	3,950	C	FIHS
E	Interstate 4	SR 539	US 98	3,302	C	3,950	C	FIHS
W	Interstate 4	SR 539	US 98	2,724	C	3,950	C	FIHS
E	Interstate 4	US 98	Socrum Loop Rd	3,302	C	3,950	C	FIHS
W	Interstate 4	US 98	Socrum Loop Rd	2,724	C	3,950	C	FIHS
W	Interstate 4	Socrum Loop Rd	SR 33	3,080	C	3,950	C	FIHS
W	Interstate 4	SR 33	SR 559	3,161	C	3,950	C	FIHS
N	SR 37 (Florida Ave)	SR 570	Ariana St	1,768	E	1,810	E	M3
S	SR 37 (Florida Ave)	Ariana St	Main St	1,720	E	1,810	E	M3
S	SR 659 (Combee Rd)	US 98	US 92	842	E	850	E	M2
S	SR 659 (Combee Rd)	US 92	CR 546	714	D	790	D	M1
E	US 92 (Memorial Blvd)	Wabash Ave	Florida Ave	1,777	E	1,810	E	M3
N	US 98	Lyle Pkwy	CR 540A	2,093	C	1,750	C	FIHS
N	US 98	CR 540A	SR 540	2,166	C	2,640	C	FIHS
	COUNTY ROAD							
S	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	517	D	608	D	D
N	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	487	D	760	D	D
S	CR 37A (Scott Lake Rd)	CR 540A	Hallam Dr	736	D	760	D	D
W	CR 540 (Clubhouse Rd)	CR 37B	US 98	612	D	760	D	D
W	CR 546 (Saddle Creek Rd/Old Dixie Hwy)	SR 659	Lake Ariana Blvd	507	D	608	D	D
N	CR 655 (Berkley Rd)	SR 33	CR 546	508	D	760	D	D
N	East Lake Parker Dr	US 92	Old Combee Rd	297	D	448	D	M1
S	East Lake Parker Dr	US 92	Old Combee Rd	329	D	448	D	M1
W	Lake Miriam Dr	SR 37	CR 37B	613	D	760	D	M1
E	Old Polk City Rd	CR 582	Walt Williams Rd	478	D	608	D	D
E	Reynolds Rd	SR 540	US 92	497	D	608	D	M1
W	Reynolds Rd	SR 540	US 92	460	D	608	D	M1
E	Skyview Dr	SR 659	Reynolds Rd	567	D	760	D	M1
W	Skyview Dr	SR 659	Reynolds Rd	468	D	760	D	M1
N	Yates Rd	Ewell Rd	Medulla Rd	286	D	448	D	D
S	Yates Rd	Ewell Rd	Medulla Rd	264	D	448	D	D

	CITY ROAD							
N	Cleveland Heights Blvd	Hallam Dr	Westover St	842	E	850	E	M2
YEAR 2015 BELOW STANDARD LOS								
	ROAD SEGMENT	FROM	TO	PEAK-SEASON/ DIRECTIONAL VOLUME	PEAK-SEASON/ DIRECTIONAL LOS	PEAK-HOUR DIRECTIONAL CAPACITY	ROADWAY LOS STANDARD	MULTI-MODAL LOS STANDARD
	STATE ROAD							
E	Interstate 4	Hillsborough County Line	SR 570	4,022	F	3,950	C	FIHS
N	SR 33	I-4	Old Polk City Rd	718	F	704	D	D
N	SR 37	Shepherd Rd	Pipkin Rd W	1,943	F	1,850	E	M2
N	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	1,811	F	1,810	E	M2
S	SR 37 (Florida Ave)	Pipkin Rd W	Alamo Dr	2,195	F	1,810	E	M2
S	SR 37 (Florida Ave)	SR 570	Ariana St	2,144	F	1,810	E	M3*
E	SR 540 (Winter-Lake Rd)	Us 98	PCC/USF Entrance	900	F	880	E	M2
N	SR 659 (Combee Rd)	US 98	US 92	1,020	F	850	E	M2
N	SR 659 (Combee Rd)	US 92	CR 546	866	F	790	D	M1
W	Us 92/98 (Memorial Blvd)	Florida Ave	Lake Parker Ave	2,059	F	1,810	E	M3*
W	Us 92/98 (Memorial Blvd)	Lake Parker Ave	SR 659	1,915	F	1,810	E	M2
E	US 92	SR 659	SR 655	2,104	F	1,850	E	M1
N	US 98	Memorial Blvd	I-4	2,046	F	1,850	E	M3*
	COUNTY ROAD							
N	CR 35A (Kathleen Rd)	CR 542A (Galloway Rd)	Duff Rd	1,167	F	608	D	D
N	CR 542A (Galloway Rd)	10 th St	CR 35A	1,027	F	664	E	M2
S	CR 582 (Socrum Loop Rd)	SR 33	Daughtery Rd E	1,881	F	1,750	E	M2
N	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	832	F	704	E	M2
S	Harden Blvd	Pipkin Rd	SR 570 (Polk Parkway)	898	F	704	E	M2
E	Lake Miriam Dr	SR 37	CR 37B	919	F	760	D	M1
W	Old Polk City Rd	CR 582	Walt Williams Rd	619	F	608	D	D
E	Pipkin Rd W	Pipkin Rd S	SR 37	692	F	664	E	M2
W	Pipkin Rd W	Pipkin Rd S	SR 37	744	F	664	E	M2
	CITY ROAD							
S	Cleveland Heights Blvd	Hallam Dr	Westover St	1,263	F	850	E	M2
E	Edgewood Dr	SR 37 (Florida Ave)	CR 37B (Lakeland Highlands Rd)	895	F	880	E	M3*
W	Edgewood Dr	SR 37 (Florida Ave)	CR 37B (Lakeland Highlands Rd)	1,051	F	880	E	M3*
W	Highland Dr	S Florida Ave	Cleveland Heights Blvd	684	F	664	E	M3*
E	Main St	Lake Beulah Dr	SR 37 (Florida Ave)	627	F	396	E	M3*
W	Main St	Lake Beulah Dr	SR 37 (Florida Ave)	627	F	396	E	M3*

Source: Post Buckley Schuh & Jernigan analysis, 2001.

* Even though these segments fail on a roadway level of service standard, they meet the City's multi-modal level of service standard.

POLK COUNTY 2025 LONG RANGE TRANSPORTATION PLAN

The need for a road project is determined by projecting roadway levels of service into the future. Since road improvement projects can take ten years and more from determination of need, to completion of construction, local needs have been projected over the next twenty-five years resulting in a 2025 horizon year for the *Polk County Long Range Transportation Plan* as adopted by the TPO in December 2000, and the Florida Transportation Plan (FTP) developed by the FDOT.

To develop a Year 2025 Transportation Plan, several alternative series of road improvements are tested by computer using the Florida Standard Urban Transportation Modeling Structure (FSUTMS). Using quantitative methods, the FSUTMS model indicates how travel patterns will change County-wide if a new road is constructed versus widening an existing road. Each alternative is compared for impacts to the community, the natural environment, and on meeting traffic circulation needs including goods movement. The safety of the existing roadway and other factors such as system preservation were also factored into the evaluation criteria that was used to rank each candidate project. The TPO then recommends transportation improvements with the highest net benefits.

It should be noted that the modeled data for the *2025 Long-Range Transportation Plan* (LRTP) included evaluation of various future land use scenarios. Local governments and the TPO staff met initially in 1999 as part of what became the Land Use and Transportation Forum (LUTF), an advisory committee, to discuss the issues linking land use with transportation. This led to input of variations of socioeconomic data (population, housing and employment) for specific geographic areas (groups of traffic analysis zones, TAZ) that local land planners determined were likely to experience significant changes such as high industrial or office growth. Assumptions and other data for TAZs was “confirmed” or verified as well, in order to ensure a more up-to-date forecast model. Upon release of Year 2000 U.S. Census data, the TPO will re-examine model data forecasts.

The 2025 LRTP development process also included a public involvement component that allowed the TPO staff to receive feedback on transportation-related issues that are of concern to Lakeland area residents.

The Polk Transportation Planning Organization evaluated what roadway improvements were deemed “cost feasible” based on anticipated federal, state or local revenue projections. The cost feasible projects for the 2025 LRTP were divided into Phases I and II, which were those projects which that might be funded from fiscal year 2000-2015 and those between fiscal years 2016 and 2025. Phase I, or up through 2015, is referred to as the Short-Range Component (SRC) of the LRTP. The SRC is important in that it identifies the transportation projects that will be annually prioritized by the TPO for State and Federal funding, and included in the new Florida Department of Transportation Five-Year Work Program. Illustration III-9 displays the Polk County 2015 SRC projects

targeted for the Lakeland Planning Area and Table III-7 lists the projects for that component. The TPO will develop an implementation schedule for each SRC project in Polk County as part of its annual Transportation Improvement Program, in order to identify when project development and environment study, design engineering, right-of-way acquisition, and construction should occur to ensure a timely implementation of each SRC project.

Illustration III-9: Phase One (2015) Long-Range Transportation Plan

TABLE III-7
ADOPTED POLK COUNTY 2025 LONG-RANGE TRANSPORTATION PLAN
PHASE ONE PROJECTS IN LAKELAND PLANNING AREA

ROADWAY	FROM	TO	LANES	JURISDICTION
COMMITTED PROJECTS: 2000-2005				
In-Town Bypass	North Florida Avenue	US 98 (Bartow Road)	New 4/6	FDOT
Interstate 4	W. of SR 546 (Memorial Blvd)	Osceola County Line	4 to 6	FDOT
Interstate 4	@ US 98	NA	Maj. Recst.	FDOT
US 98	N. of Carpenter's Way	Daughtery Road	4 to 6	FDOT
CR 35A (Kathleen Rd.)	Interstate 4	CR 542A (Galloway Rd.)	2 to 4	County
CR 582 (Griffin Road)	CR 35A (Kathleen Rd.)	US 98	2 to 4	County
CR 540A	Ewell Road/SR 37	CR 37B (Lkld. Highlands)	2 to 4	County
Marcum Road/N. Socrum Loop Rd.	US 98	Socrum Loop Rd. @ Old Polk City Rd.	2 to 4	County
CR 37B (Lkld. Highlands Rd.)	SR 570 (Polk Parkway)	Glendale Street	2 to 4	City
Griffin Road	US 98	SR 33 (Lakeland Hills)	2 to 4	City
Medulla Road Realignment	County Line Road	Airshow Road	New 2	City
PLANNED PROJECTS: 2006-2015				
US 98	Manor Drive (Bartow)	SR 540 (Winter Lake Rd.)	4 to 6	FDOT/ FIHS
In-Town Bypass	George Jenkins Boulevard	N. Florida Avenue	New 4	FDOT
US 98	SR 570 (Polk Parkway)	Edgewood Drive	4 to 6	FDOT
SR 563 (North-South Route)	Pipkin Road	SR 570 (Polk Parkway)	New 4	FDOT
US 92 (New Tampa Highway)	Hillsborough County Line	Wabash Avenue	2 to 4	FDOT
US 98	Edgewood Drive	In-Town Bypass	4 to 6	FDOT
CR 540A	CR 37B (Lkld. Highlands)	US 98	2 to 4 (ROW Only)	County
PUBLIC/PRIVATE PARTNERSHIPS				
Combee Road Ext.	SR 33 @ Williams DRI E-W Collector Road	Walt Williams Road	New 2	
Gapway Road Ext.	Gapway Road @ Berkley Road	Williams DRI E-W Collector Road	New 2 w/ 4 ROW	

ROADWAY	FROM	TO	LANES	JURISDICTION
Interstate 4	@ Williams DRI Entrance	NA	New Interchange	
Mount Olive Road Ext.	Williams/PCC E-W Collector Road	Existing Mount Olive Road	New 2	
SR 570 (Polk Parkway)	@ Pace Road	NA	New Interchange	
SR 570 (Polk Parkway)	@ Gapway Road	NA	New Interchange	
Polk Commerce Centre E-W Collector Road	Mount Olive Road Ext.	Berkley Road @ CR 559A	New 2 w/ 4 ROW	
Williams DRI N-S Collector Road	Williams DRI E-W Collector Road	SR 33 west of Mount Olive Road	New 2 w/ 4 ROW	
Williams DRI E-W Collector Road	Mount Olive Road Ext.	SR 33	New 2 w/ 4 ROW	

Source: Polk Transportation Planning Organization, December 7, 2000.

Perhaps the highest priority project for Lakeland in the 2025 LRTP is the In-Town Bypass—a new four- and six-lane controlled access roadway that will begin at the current terminus of Bartow Road (US 98) at Main Street, curve around downtown Lakeland along the north side of Magnolia Street, and connect with George Jenkins Boulevard at the railroad underpass. Besides providing a convenient east-west connection, the improvement would eliminate the need to add lanes around Lake Mirror or along Lemon and Main Streets through the business district. In addition, the In-Town Bypass will include grade separated crossings of the CSX railroad on both the east and west ends of downtown (eliminating the delays frequently experienced at the current at-grade crossings on North Florida Avenue and Massachusetts Avenue), and will improve freight and goods movement by providing a more convenient bypass around the existing obsolete railroad trestle on George Jenkins Boulevard west of downtown.

In an effort to create a more livable Central Business District, the City of Lakeland worked with the Florida Department of Transportation to remove South Lake Mirror Drive, which was subsequently converted to the Lake Mirror Promenade pedestrian facility. This promenade provides an exclusively non-motorized connection between the downtown employment center, the Lake Mirror Center and the privately founded Hollis Gardens. The City also initiated a program to convert existing one-way streets in the Central Business District to two-way streets. Streets that were converted by 2000 included Missouri Avenue, New York Avenue, Orange Street, Tennessee Avenue and Kentucky Avenue. Main and Lemon Streets, which were once designated as Business Routes U.S. 92 and U.S. 98, have been removed from the State highway system, and are scheduled to be converted to two-way streets in 2001.

The City also focused on adding capacity to north/south arterial roads through Lakeland in order to relieve S.R.37 (South Florida Avenue). Phase One of the LRTP (i.e. through 2015) includes an extension of State Road 563 (the North-South Route) from S.R.570 (Polk Parkway) to Pipkin Road, which will assist in stabilizing the level of service on

portions of South Florida Avenue. Phase One also contains a six-lane improvement of U.S. 98 between the Polk Parkway and downtown Lakeland. In terms of east-west corridor improvements, Phase One includes a four-lane improvement of U.S. 92 (New Tampa Highway) between Wabash Avenue and the Polk-Hillsborough county line. Overall, these planned improvements will enhance the north-south access into Lakeland and improve the east-west travel demand between the downtown and West Lakeland, in turn improving the utilization of the In-Town Bypass.

The *2010 Long-Range Transportation Plan* will be a useful tool in the identification of future right-of-way needs so that identified corridors can be protected from development. This issue is also addressed in the Future Land Use Element of the Lakeland Comprehensive Plan.

Although all of the projects in the year 2010 Transportation Needs Plan will be necessary to maintain the currently adopted levels of service, not all of these projects are financially feasible. If funding is unavailable for a needed project, the improvement is not considered to be financially feasible.

CANDIDATE PROJECTS FOR ALTERNATIVE SOURCES OF FUNDING

Transportation funds are allocated by the State or County on a “fair-share” basis, generally defined as a combination of population and amount of gas tax receipts. Impact fees assessed by local government depend on scale and location of development. Discretionary funding allocated on a regional- or state-wide basis depending on need are a third category of funding.

During the 1990’s and 2000’s new programs were developed to address specific transportation deficiencies around the State and nation. In Florida, such programs included the Intermodal Access Development Program, through which the City of Lakeland has been successful in funding the Lakeland-Linder Regional Airport southside access improvements, and the County Incentive Grant Program. Typically, good candidate projects must enhance economic development and intermodal connections, or otherwise provide relief to the State Highway System (SHS). In order to be funded, projects must be endorsed by the Transportation Planning Organization, usually must be included in the LRTP, and be received favorably by the Florida Department of Transportation or other agency that must prioritize City projects with those submitted from around the region and State. The 2025 LRTP includes projects that were evaluated as good candidates for these and other discretionary sources of funding that might be developed by 2025; the list of these projects in the Lakeland Urban Area is found in Table III-8.

TABLE III-8
ADOPTED POLK COUNTY 2025 LONG-RANGE TRANSPORTATION PLAN
CANDIDATE PROJECTS FOR ALTERNATIVE SOURCES OF FUNDING

ROADWAY	FROM	TO	LANES
County Line Road	State Road 60	Medulla Road Extension	2 to 4
Airport Southside Access Improvements	Including Medulla Road Realignment and widening of Medulla/West Pipkin Road		New 4 & 2 to 4
State Road 572 (Airport Road)	State Road 572 (Drane Field Road)	US 92 (New Tampa Highway)	2 to 4
Access Improvements to Lakeland AMTRAK Station or future High-Speed Rail Station	Various Locations		Various

Source: Polk County Long-Range Transportation Plan, 2025.

CANDIDATE PROJECTS FOR LOCAL FUNDING

The roadway projects discussed in this section are not technically considered to be financially-feasible projects in the 2025 LRTP based on the amount of local, State and Federal funding that is anticipated to be available by 2025. They are considered to be, however, priority arterial/major collector road projects for the City of Lakeland and could be financially-feasible depending on the amount of local funding, primarily impact fees plus any grant funds that may be available by 2025, and how the City chooses to spend those dollars. Also, any private construction of these roads by the private sector would be eligible for impact fee credits.

The Candidate projects for future City funding included in the 2025 LRTP are listed in Table III-9 and are intended to address two types of future highway deficiencies in the Lakeland Planning Area: 1.) good north-south routes that provide access to the Polk Parkway and Interstate 4 from the South Lakeland Area on streets other than South Florida Avenue 2.) development of a good grid network in the Northeast Lakeland Area to improve access across Interstate 4.

TABLE III-9
ADOPTED POLK COUNTY 2025 LONG-RANGE TRANSPORTATION PLAN
CANDIDATE PROJECTS FOR LOCAL FUNDING

ROADWAY	FROM	TO	LANES	JURISDICTION
Combee Road Ext.	State Road 33	Walt Williams Road	New 2	City
County Line Road	State Road 60	Medulla Road Realignment	2 to 4	County
CR 35A (Kathleen Rd.)	CR 542 (Galloway Rd.)	Duff Road	2 to 4	County
CR 37B (Lakeland Highlands Rd.)	Lake Miriam Drive	State Road 570 (Polk Parkway)	2 to 4	County/City

ROADWAY	FROM	TO	LANES	JURISDICTION
CR 37B (Lakeland Highlands Rd.)	CR 540A	Lake Miriam Drive	2 to 4	County
CR 540A	CR 37B (Lakeland Highlands Rd.)	US 98	2 to 4 (CST Phase)	County
Interstate Drive Ext.	SR 539 (Kathleen Road) @ Proposed Wabash Ave. Ext.	CR 582 (Griffin Road) @ Mall Hill Road	New 4	City
Medulla/West Pipkin Rd.	Medulla Road Realignment	State Road 563 (Proposed North-South Route)	2 to 4	City
Old Polk City Road	CR 582 (Socrum Loop Road)	Walt Williams Road	2 to 4	County
Wabash Avenue	US 92 (Memorial Boulevard)	Tenth Street	2 to 4	City
Wabash Avenue Ext. (Incl. Oakbridge Conn.)	SR 563 (Proposed North-South Route)	US 92 (New Tampa Highway)	2 to 4/ New 2 & 4	City
Wabash Ave. Ext. (North)	Tenth Street	SR 539 (Kathleen Road)	New 4	City

Source: Polk County Long-Range Transportation Plan, 2025.

MINOR CONNECTOR ROAD IMPROVEMENTS

Although improvements to arterial and major collector roadways are an important part of developing a functioning highway network, it is equally important to develop a good minor collector grid network that accommodates shorter trips (e.g., home to a corner convenience store), thereby increasing the available capacity on major roadways to accommodate longer trips such as home to work or regional shopping. The connector roads shown in Table III-10 are included in the TPO's 2025 LRTP as improvements that would be required of large residential and non-residential developments locating in the North Lakeland/Kathleen or West Lakeland Areas.

TABLE III-10
ADOPTED POLK COUNTY 2025 LONG-RANGE TRANSPORTATION PLAN
CANDIDATE LAKELAND AREA CONNECTOR ROAD IMPROVEMENTS

ROADWAY	FROM	TO	LANES
S. Tom Costine Rd. Ext.	Tom Costine Road (E. of Ridgeglen Dr.)	Old Polk City Road	New 2
N. Galloway Rd. Ext.	Galloway Road @ Gibsonia-Galloway Road	Duff Road @ Lewis Road	New 2
N. Mall Hill Rd. Ext.	Mall Hill Rd. @ SW Corner of Lakeland Square Mall	Sleepy Hill Road	New 2
W. Daughtery Rd. Ext.	W. Daughtery Rd. @ Gibsonia-Galloway Rd.	Sleepy Hill Road	New 2
Pipkin/Waring/Drane Field Connector	S. Pipkin Rd. (N. of Medulla Rd.)	Waring Rd. (S. of Drane Field) and Drane Field Rd.	New 2

Source: Polk County Long-Range Transportation Plan, 2025.

EVALUATION OF ALTERNATE LAND USE SCENARIOS

The Polk Transportation Planning Organization staff worked with local governments throughout Polk County to develop alternative land use scenarios that would be used for highway needs testing during the development of the *2025 Long-Range Transportation Plan*. Alternative population and employment forecasts were developed for the following three (3) sub-areas impacting the Lakeland Planning Area: West Lakeland, North Bartow, and the Northeast Polk Parkway.

The sub-areas analysis was used to identify transportation impacts associated with each scenario, and was forwarded to each affected local government for use in the development of their Local Comprehensive Plan Transportation Elements. This exercise was used as a way to critique the 2020 “base” population and employment totals that were developed for the *2020 Long-Range Transportation Plan* in the mid-1990's, and to determine which scenarios, if any, would be included in the population and employment control totals that would be used for 2025.

WEST LAKELAND SUB-AREA STUDY

The City of Lakeland asked the Transportation Planning Organization to evaluate two alternative land use scenarios for the West Lakeland Sub-area during the development of its *2025 Long-Range Transportation Plan*. The major difference between these scenarios is the primary employment activity that would be found in this area. Table III-11 lists the roadway improvements that were examined through the entire West Lakeland sub-area analysis, including the West Memorial area study.

Sub-area at a Glance

The West Lakeland Sub-area is bordered by County Line Road (west), the CSX Railroad/Winston Railroad Yard (east), Interstate 4/Galloway Road/Tenth Street (north) and Shepherd Road (south). In 1990, the population in this area was 16,186, while the total employment for the area was 6,974. The predominant employer in West Lakeland has been Publix Supermarkets, whose current headquarters and a number of its production and distribution facilities have been located along US 92 (New Tampa Highway) and County Line Road.

Major Issues

- In the 1990's, GEICO Insurance opened a regional call center in the Lakeland Airside Center on Medulla Road on the south side of the Airport. This 297,000 square foot facility had 1,200 employees in 2000; however, this number is expected to grow to 3,000 by 2005 with a potential for 2,000 more employees if an additional 200,000 square feet is added.
- In 2000, Publix proposed approval to construct a 600,000 square foot corporate headquarters on State Road 572 (Airport Road) just south of the State Road 570 (Polk Parkway). This facility will house 2,000 employees, some of whom will be

relocated from offices on Galloway Road and George Jenkins Boulevard while others will be new employees. The old office space will be leased, thereby encouraging a greater number of employees in the area.

By 2000 a number of significant transportation improvements had been made in this area which attracted development, including the construction of the SR 570 (Polk Parkway), the four-laning of County Line Road and the six-laning of Interstate 4 west of Memorial Boulevard. The City of Lakeland had also sought and received funding for the four-laning of Medulla Road on the south side of Lakeland-Linder Regional Airport, the realignment of Medulla Road to eliminate the S-curve on the southwest corner of the Airport property, and the four-laning of County Line Road from I-4 south to the Medulla Road Realignment.

Significant improvements were underway in 2000 at Lakeland-Linder Regional Airport, including the development of a business park on the south side of the Airport property and the construction of a new terminal that will be three times the size of the former facility.

Industrial Scenario

Under the “Industrial” scenario, it was envisioned that the West Lakeland area would continue to grow as a major distribution center. For modeling purposes, such employment would be classified as industrial, rather than service. Based on land use and economic assumptions and trends as provided by City staff to the TPO, overall employment was projected to grow by 3,300 additional jobs above 2020 projections. Almost 5,000 additional industrial employees would be expected; however, service employment projections would decrease by over 2,700.

Employment Center Scenario

Under the “Employment Center” scenario, large service employers such as GEICO, which have a higher trip generation rate, would proliferate at a rapid rate. Overall employment in West Lakeland would grow by approximately 13,000 above previous projections. Industrial employment projections would decrease by almost 2,200; however, service employment would increase by over 14,000.

Residential

In discussions with the City and Polk County Planning staff, it was determined that there would continue to be a considerable amount of population growth in the West Lakeland area (roughly 26,000 by 2020), with very little of that growth occurring in Traffic Analysis Zones (TAZs) on the north side of Shepherd Road. Carlton Arms, a 900 unit apartment complex located just west of Lunn Road which was constructed after 1990, accounted for a major increase in multi-family population for this area. For the Shepherd Road corridor as a whole, however, population projections were scaled back from what was

previously expected. Population forecasts for the West Lakeland area as a whole were increased by only 2,900 persons.

SCENARIO	2025 POPULATION	2025 EMPLOYMENT
Base	41,223	32,873
Industrial	44,098	36,176
Employment Center	44,098	45,993

West Memorial Sub-area Study

One of the major highway network constraints that could inhibit economic growth in the West Lakeland Sub-Area is the configuration of the West Memorial Boulevard/Interstate 4 interchange. This interchange only permits access to and from the west, meaning that traffic, particularly truck traffic bound for Orlando, must use local and often congested streets to reach Interstate 4. The City of Lakeland requested that the Florida Department of Transportation (FDOT) evaluate the feasibility of the following two alternative improvements to the Interstate 4/Memorial Boulevard interchange:

- **Interchange Scenario One:** The relocation of the entire interchange eastward to the vicinity of Crutchfield Drive, which would provide the necessary room to accommodate a full diamond interchange. This alternative includes the extension of Southside Frontage Road from its existing terminus at Galloway Road to the new Memorial Boulevard alignment, which will provide a needed connection to the Galloway/Airport Road Corridor on the south side of Interstate 4. This concept also includes the realignment of Galloway Road on the north side of Interstate 4 in order to accommodate a new connection to the north, thereby improving interstate access to the rapidly growing Kathleen area; and
- **Interchange Scenario Two:** The addition of an on-ramp from westbound Memorial Boulevard to eastbound Interstate 4.

The purpose of the proposed interchange improvements would include providing full access to the Interstate in order to better facilitate freight/goods movement, as well as to provide greater access for the large number of employees that are anticipated to be working in the area by 2020. This was the primary focus of the modeling effort that was conducted for this sub-area analysis.

Since the traffic congestion that would be experienced under the Employment Center scenario would be more acute, it was the population and employment zonal data set that was modeled for the adopted *2020 Long-Range Transportation Plan* Cost-Feasible Plan Network by FDOT's planning consultant. This future highway network included an extension to Wabash Avenue between SR 563 (the future North-South Route extension) and SR 539 (Kathleen Road) just south of the Interstate 4 interchange. Transportation Planning Organization staff modeled alternative networks with and without these Wabash Corridor improvements on the 2010 Short-Range Component Network. The short range component is comprised of more critical projects that are

more likely to be implemented during the horizon year of the LRTP, and therefore represents a good network to use for alternatives testing. In general, the model results indicated that the Wabash Avenue extension to Kathleen Road provided little benefit in terms of Interstate access from West Lakeland; however, the overall corridor improvements provided relief to SR 37 (South Florida Avenue) and SR 563 (Harden Boulevard) south of downtown Lakeland.

Based on both the FDOT and TPO staff evaluations of Interchange Scenarios One and Two, the TPO determined that Scenario One would be the most cost-effective improvement to include in the TPO's *2025 Long-Range Transportation Plan*, as a project that would be considered for inclusion in FDOT's 2025 FIHS Cost-Feasible Plan.

In addition to freight and goods movement, the West Memorial/Interstate 4 interchange evaluation began to examine the possible impacts of each improvement alternative on the surrounding neighborhoods, including the nearby Winston Elementary School. The TPO recommended that the community impacts of Scenario One be evaluated as part of the Interchange Justification Report (IJR) that would be required in order for the project to be implemented. In fact, this IJR will include a pilot project on the use of environmental screening and community impact assessment techniques for transportation projects.

The West Memorial Boulevard Sub-area Final Report is scheduled to be approved by the FDOT in the Spring 2001. This report will contain a final listing of the highway needs that would need to be addressed with and without the relocation of the West Memorial Boulevard/Interstate 4 interchange.

Other Highway Network Needs

The TPO identified a number of highway needs which occur under the Employment Center Scenario and which were in addition to those identified in the 2020. Some of these needs were not included in the TPO's 2025 Highway Needs Analysis for a number of reasons. For example, it was judged by the TPO staff that the County Line Road needs would be addressed by either the relocation of the Interstate 4/Memorial Boulevard interchange or the four-laning of State Road 572 (Airport Road), which was included in the *2025 Long-Range Transportation Plan* as a project that would compete for discretionary funding from a number of state-wide programs aimed at improving intermodal access or enhancing economic development.

The model also showed a number of east-west roadway needs, including the four-laning of Drane Field Road, Old Tampa Highway and US 92 (New Tampa Highway). It was judged by the TPO staff that any improvements to Drane Field Road would compete with the toll-funded State Road 570 (Polk Parkway) and that the four-laning of New Tampa Highway would alleviate the need to improve Old Tampa Highway. Four-laning Old Tampa Highway was evaluated as having major impacts on the surrounding residential areas. Improvements added on Galloway Road, between New Tampa Highway and Griffin Road, and Tenth Street, between Galloway Road and Kathleen

Road, will need to be addressed in the context of any proposed improvements to the West Memorial Boulevard/Interstate 4 interchange.

**TABLE III-11
WEST LAKELAND IDENTIFIED HIGHWAY NEEDS**

ROADWAY	FROM	TO	LANES	COMMENTS
County Line Road	US 92 (New Tampa Highway)	Interstate 4	4 to 6	Addressed in W. Memorial Study
County Line Road	Drane Field Road	US 92 (New Tampa Hwy.)	4 to 6	Would probably be addressed by any improvement to Airport Rd.
Drane Field Road	South Pipkin Road	County Line Road	2 to 4	Not included in TPO Needs Analysis—would compete with Polk Parkway
Galloway Road	US 92 (New Tampa Highway)	Griffin Road	2 to 4	Addressed in W. Memorial Study
Griffin Road	Walker Road	CR 35A (Kathleen Road)	2 to 4	TPO Staff judged that transportation model is over allocating trips onto Griffin Rd.
Interstate 4	Hillsborough County Line	US 98	6 to 10	Recommended by TPO for inclusion in updated FDOT Fl. Intrastate Highway System Cost-Feasible Plan.
Old Tampa Highway/Olive Street	Wabash Avenue	County Line Road	2 to 4	TPO staff judged that this would not be a need with the four-laning of New Tampa Hwy.
SR 572 (Airport Road)	Drane Field Road	US 92 (New Tampa Hwy.)	2 to 4	Included in 2025 L RTP as a "Candidate Project for Alternative Sources of Discretionary Funding".
Tenth Street	Galloway Road	SR 539 (Kathleen Road)	2 to 4	Need if Interstate 4/Memorial interchange is re-located. Community impacts will be addressed in Interchange Justification Report.
US 92 (New Tampa Highway)	Wabash Avenue	County Line Road	2 to 4	Included in 2025 L RTP
Wabash Avenue	US 92 (Memorial Boulevard)	Tenth Street	2 to 4	Candidate Project for Local Funding
Wabash Avenue Ext. (Incl. Oakbridge Conn.)	SR 563 (North-South Route)	US 92 (New Tampa Highway)	2 to 4 New 2 & 4	Candidate Project for Local Funding
Wabash Avenue Ext.	Tenth Street	SR 539 (Kathleen Road)	New 4	Candidate Project for Local Funding
Waring Road	Drane Field Road	SR 570 (Polk Parkway)	2 to 4	TPO staff will approach FDOT Turnpike District about future funding as access project for Polk Parkway.

Source: Polk Transportation Planning Organization, February 2001.

NORTHEAST POLK PARKWAY

Sub-area at a Glance

As the title suggests, the Northeast Parkway Sub-Area is an area defined to include the eastern corridor of the newly constructed Polk Parkway (State Road 570), between Lakeland and Auburndale north of U.S. 92. It includes the areas addressed by the Northeast Parkway Selected Area Plan (SAP) of the Polk County Comprehensive Plan, land to the west which is part of the Bridgewater Development of Regional Impact (DRI),

and Williams DRI, which was scheduled to be annexed into the City of Lakeland in 2001. The sub-area covers approximately 40 square miles. In 1990, the population for this sub-area was approximately 9,000, while the total employment for the region was 785.

Major Issues

Although there has been limited development activity since 1990, the Polk Parkway is expected to act as a catalyst for growth and development in the surrounding region. Two large-scale DRIs are located within the Parkway corridor. As initially constructed, the Polk Parkway includes two (2) lanes from CR 546 (Old Dixie Highway) to Interstate 4. The last interchange before Interstate 4 is located at CR 546. Besides the proposed 4-laning of this Parkway segment, there are additional interchanges proposed on the Parkway in the vicinity of Gapway and Pace Roads.

Development of Alternative Land Use Scenarios

The TPO's 2020 population and employment projections did not reflect the development potential associated with the DRIs in the Parkway corridor. Two (2) alternate land use scenarios, DRI Scenarios 1 and 2, were developed based on the proposed development plan and phasing for these large projects, as of March 2000.

Bridgewater DRI

The TPO's base projection included population and employment associated with the Bridgewater DRI which is located in the northwest section of the sub-area. There has been limited development activity for the Bridgewater DRI since its approval. The Florida Fish and Wildlife Conservation Commission recently purchased a substantial amount of the Bridgewater DRI, and incorporated part of it into the Tenoroc State Reserve. This purchase included parcels in the southern part of the project and, for the most part, does not affect the defined sub-area. However, both DRI scenarios include a reduction in the projected employment for this area to reflect this land purchase.

Polk Commerce Centre DRI

The proposed development plan and phasing for the Polk Commerce Centre DRI is as follows:

Phase	Year	Business Park Center (ksf)	Residential Medium (du)	Residential High (du)	Hotel (rms)
1	1998-04	5,600	1,200	600	600
2	2005-10	5,000	1,100	600	1,300
3	2011-17	5,000	1,100	600	1,300
Total		15,600	3,400	1,800	3,200

DRI Scenario 1 includes Phase 1 of the proposed development, while DRI Scenario 2 includes 2/3 of the proposed cumulative development for Phases 1 and 2.

Williams DRI

The proposed development plan and phasing for the Williams DRI is as follows:

Phase	Year	Commercial (ksf)	Business Park Center (ksf)	Single- Family Residential (du)	Multi-Family Residential (du)
1	2001-05	100	327	1,184	
2	2006-10	1,471	599	864	300
3	2011-15	907	751	662	450
Total		2,477	1,677	2,710	750

DRI Scenario 1 includes Phase 1 of the Williams DRI, and DRI Scenario 2 includes 2/3 of the proposed total development (Phases 1 - 3).

Comparison of Alternate Projections

Projection	2025 Population	2025 Employment
Base	21,564	14,815
DRI Scenario 1	22,725	22,682
DRI Scenario 2	26,348	33,728

Land Use Scenario Modeling

TPO staff requested that the FDOT's Turnpike District analyze the impacts of each DRI and their respective internal roadway networks on the existing facilities in the sub-area, including the new SR 570 (Polk Parkway). TPO staff provided the Turnpike District with population and employment projections for DRI Scenarios 1 and 2 and asked that the adopted 2020 Highway Network also reflect the internal roadways that were shown in both the Williams and Polk Commerce Centre DRI Master Plans. TPO staff adjusted these roadways to define a potential network that would serve the travel demand in the overall sub-area, as opposed to each individual DRI. The TPO staff also split the Traffic Analysis Zones (TAZs) that fall within both the Williams and Polk Commerce Centre DRIs in order to better replicate the loading of traffic onto the new internal roadways defined by both DRIs.

Representatives with the Williams DRI met with TPO, FDOT and City of Lakeland staff to discuss the results of this analysis, as well as any possible changes to the internal road network that might be needed to improve system continuity. The City of Lakeland and the Developer requested that the project shown in the previous, *TPO 2020 Long-Range Transportation Plan* as the "Combee Road Extension" be re-aligned to connect with the Williams E-W Collector road that would bisect their project. The Developer's request for a new interchange onto Interstate 4 between SR 33 and SR 570 (Polk Parkway), was also discussed. This issue is was still being addressed as of 2001.

The Turnpike District recommended that a proposed roadway along the east side of the Polk Parkway that would serve the Polk Commerce Centre DRI not be constructed to encourage through traffic, since it would likely divert trips around the mainline toll plaza that is located on the Polk Parkway north of CR 546 (Old Dixie Highway). It should be noted that the entire analysis was transmitted to representatives of the Polk Commerce Centre for their information and feedback during the 2025 LRTP development process. The final analysis of identified highway needs is presented in Table III-12 below.

**TABLE III-12
NORTHEAST POLK PARKWAY IDENTIFIED HIGHWAY NEEDS**

NORTHEAST POLK PARKWAY (DRI SCENARIO ONE)¹				
ROADWAY	FROM	TO	LANES	COMMENTS
State Road 33	Socrum Loop Road	Williams E-W Collector Road	2 to 4	The adopted 2020 LRTP model network was inadvertently re-validated without the "Combee Road Ext." that would connect SR 33 with Walt Williams. That road would likely address this need.
NORTHEAST POLK PARKWAY (DRI SCENARIO TWO)¹				
ROADWAY	FROM	TO	LANES	COMMENTS
State Road 33	Socrum Loop Road	Mount Olive Road	2 to 4	The adopted 2020 LRTP model network was inadvertently re-validated without the "Combee Road Ext." that would connect SR 33 with Walt Williams. That road would likely address this need.
Williams DRI E-W Collector Road	Mount Olive Road Ext.	State Road 33	2 to 4	Project will be funded with private or non-traditional public funds (such as those derived from a municipal benefit district).
Williams DRI N-S Collector Road (via Interstate 4 Crossing)	Williams E-W Collector Road	State Road 33 West of Mount Olive Road	2 to 4	Project will be funded with private or non-traditional public funds (such as those derived from a municipal benefit district).

¹ In addition to those public/private facilities that are included in the 2025 LRTP to accommodate development.

Source: Polk LRTD Documentation, February 2001.

BARTOW SUB-AREA

Sub-area at a Glance

The North Bartow Sub-area is generally comprised of four distinct regions that have a great deal of growth potential over the next 25 years:

- US 98 interchange at the new SR 570 (Polk Parkway) near the Lakeland Campus of Polk Community College and the University of South Florida;
- US 98 corridor between Bartow and SR 570 (Polk Parkway), which is relatively undeveloped, yet expected to grow considerably due to the extension of urban services by the Cities of Lakeland and Bartow;
- Old Florida Plantation (OFP) Development of Regional Impact (DRI) in Northeast Bartow between Lake Hancock and US 17; and
- The conceptual 16,000-acre Clear Springs (CSM) DRI located generally to the east and southeast of Bartow.

Major Issues in Lakeland Area

Although all of the North Bartow Sub-area lies outside of the current Lakeland City limits, there are a number of growth-related issues in this area that are of concern to the City and its residents. U.S. 98 is the only direct route between Lakeland and Bartow, the Polk County Seat. Many Polk County residents traverse this corridor on a daily basis to conduct County business (or work in the employment centers) in Bartow or to work in Lakeland. As of 2001, the Citrus Connection operated an hourly fixed-route service along US 98 between Lakeland and Bartow, and the *US 98 Master Plan* conducted by FDOT and the TPO evaluated the feasibility of constructing the Fort Fraser Trail adjacent to US 98 between the Polk Parkway and Bartow. US 98, a component of the Florida Intrastate Highway System (FIHS), is also a major freight/goods movement route between Lakeland and State Road 60 in Bartow, which connects with the Florida Turnpike for traffic travelling to and from Southeast Florida.

In 2001, this corridor is relatively undeveloped; however, conditions were expected to change rapidly with the provision of urban utilities by the Cities of Lakeland and Bartow. It was also anticipated that the new State Road 570 (Polk Parkway) interchange at US 98 would be a catalyst for a considerable amount of growth within the next 25 years because of its location at the crossroads of two major highways and its proximity to the Lakeland joint campus of the University of South Florida and Polk Community College.

Development of Alternative Land Use Scenarios

Old Florida Plantation DRI (Bartow)

The TPO staff used the proposed development plan and phasing under the approved development order to prepare the alternate land use scenarios for this mixed-use development recently annexed into the City of Bartow. Under Scenario 1, a 67% build-out of the total project is assumed through the year 2020, while Scenario 2 assumes an

80% build-out. It should be noted that a 67% build-out assumption is a traditional one that has been used by planning agencies for DRIs in Polk County.

Clear Springs Mine DRI (Bartow Area)

Staff estimated the Clear Springs Mine (CSM) DRI has 6,000 developable acres within the sub-area. Using this estimate, staff assumed a “full build-out” of CSM would include 33% of the developable acreage in residential land uses and 32% in non-residential, or employment-related, land uses (20% industrial, 3% commercial and 2% service). This build-out analysis resulted in a total estimate of 10,375 new residents and 10,350 new employees associated with CSM. The estimated total build-out then was used to prepare the alternate land use scenarios.

Scenario One assumes 40% of the total build-out for CSM, and Scenario Two assumes 20% and 50% of the residential and non-residential land uses, respectively.

The goal of both Scenarios was to balance the residential and non-residential components of each development in order to anticipate future market conditions in the Bartow area.

US 98 between the Polk Parkway and Highland City

Data provided by the City of Lakeland Planning staff shows that the US 98 corridor between SR 570 (Polk Parkway) and Highland City is anticipated to see a significant amount of employment growth by 2020 under a worst-case scenario—an additional 4,900 employees over what is currently shown for 2020 in the TPO’s zonal data. The data provided by the City was incorporated into both Scenarios One and Two.

US 98 North (Bartow)

It is expected that the US 98 Corridor north of Bartow will become a major commercial corridor. In anticipation of this growth, TPO staff added 600 Commercial employees to the west side of US 98 north of Lyle Parkway to accommodate a major “big box” retail development and accompanying outparcels. On the east side of US 98, 300 employees were added to account for the new Bartow Memorial Hospital, which recently opened its doors on just north of Bartow’s current commercial strip. These assumptions were included in both Scenarios One and Two.

Comparison of Alternate Projections

Projection	2025 Population	2025 Employment
Base	29,868	9,370
Scenario 1	34,952	17,719
Scenario 2	34,321	18,902

Land Use Scenario Modeling

The TPO staff first determined that Scenario Two would generate the greatest amount of traffic. The 2020 population and employment projections from Scenario Two were then used to model several alternative “Bartow Bypass” concepts, a facility that would partially extend around Bartow, on the TPO’s *2010 Short-Range Component Network*, which was based on the TPO’s *2020 Long-Range Transportation Plan* adopted in 1995. The evaluation of the alternative Bartow Bypass improvements was the focal point of the modeling efforts in this Sub-area.

The needs identified in Table III-13 for the Lakeland Area are those that support Scenarios One and Two, as well as the base conditions as identified in the *TPO’s 2020 Long-Range Transportation Plan*.

**TABLE III-13
NORTH BARTOW IDENTIFIED HIGHWAY NEEDS**

ROADWAY	FROM	TO	LANES	COMMENTS
CR 37B (Lakeland Highlands Road)	Lake Miriam Drive	SR 570 (Polk Parkway)	2 to 4	Candidate Project for Local Funding.
Crystal Lake Drive	SR 659 (Combee Rd.)	Lake Hollingsworth Dr.	2 to 4	Four-laning not pursued due to severe neighborhood impacts.
Edgewood Drive	West from CR 37B (Lakeland Highlands Road)		2 to 4	TPO staff judged that this need would be reduced by any adjustments that are made to the mainline tolls on the Polk Parkway between CR 37B and SR 37. The City is also pursuing a three-lane project for Edgewood.
SR 540 (Winterlake Road)	US 98	Reynolds Road	2 to 4	Four-lane improvement would compete against Polk Parkway (toll facility) for traffic.
SR 659 (Combee Rd.)	North from US 98		2 to 4	Previous corridor studies have determined that a four-laning project would be too costly and impactive to adjacent businesses.
US 98	Manor Drive (Bartow)	SR 570 (Polk Parkway)	4 to 6	Included in FDOT’s Florida’s Intrastate Highway System 2020 Cost-Feasible Plan. Corridor is also subject of US 98 Access Management District Interlocal Agreement.
US 98	SR 570 (Polk Parkway)	Edgewood Drive	6 to 8	Six-laning project is included in Phase One of TPO LRTP. Eight-lane demand is only marginal according to Standard Transportation Model. Operational analysis would likely show six-lane demand. This need is significant in that a full six-lane project should be pursued for inclusion in FDOT Five-Year Work Program.
US 98	North from Edgewood Drive		4 to 6	Project included in Phase One of TPO LRTP.

Source: Polk LRTP Documentation, February 2001.

Bartow Subarea Analysis Documentation, Polk TPO, June 2000.

PARKING ANALYSIS

One of the new requirements for transportation elements within local government comprehensive plans is for an identification of “significant” parking facilities and their duration. Illustration III-10, Lakeland’s Significant Parking Facilities, gives the location of most of the parking garage, surface lot and other parking facility information in downtown Lakeland. This map inventory is maintained by the City’s small Parking staff of a supervisor and one enforcement officer. The City completed a major renovation of the Orange Street Garage by early 2001. All of that garage is leased by two major downtown employers.

An analysis of the supply or capacity of these facilities is shown in Table III-14. In addition to the garage space, much of which is leased or otherwise committed, the public has several surface lots to choose from, about half of which are metered, plus on-street parking which is not metered but is limited duration (such as 2 hours). In September of 2000, the Community Development Department did an informal parking survey of the members of the Downtown Lakeland Partnership, which is comprised of most downtown business owners and some Dixieland business owners. (Dixieland is a business district lying immediately south of downtown.) Of the 140 members who received a survey, about 25% responded. The survey responses indicated that there was an actual or perceived deficit of employee parking of about 45 spaces for about 31% of the respondents. About 48% of the respondents also indicated that they receive complaints from customers related to parking issues. While several employers indicated some willingness to try a remote parking facility for their employees, most were skeptical. However, one of the larger employers in the downtown area which responded to the survey did express interest in remote parking as an alternative if shuttle service was available.

The parking staff at the City work on a regular basis with a parking task force or subcommittee of the Downtown Partnership to seek solutions to everyday needs for meeting regular and handicapped parking needs. However, a long-term strategy or plan for parking in the downtown has not been formulated. The City should explore all feasible options with the Downtown Partnership, including but not limited to additional dedicated parking spaces for downtown employees; a remote parking lot with shuttle service by the Downtown Trolley or other means; city-private sector agreements to lease portions of privately-constructed garage facilities such as the garage proposed for the Heritage office park, in order to provide additional spaces for the public and/or downtown employees; additional downtown parking improvements such as a parking deck; and establishment of a downtown Transportation Management Association (TMA) to cooperatively address downtown/Central Business District issues of parking, transit and trolley use, sidewalks and streetscapes and roadway improvements which impact the downtown area.

Illustration III-10: Central Business District Parking

**TABLE III-14
CITY PARKING SUPPLY IN LAKELAND'S CENTRAL BUSINESS DISTRICT**

CITY GARAGES							
Location	Total Spaces	Handicap Spaces	Leased	Metered Public	No Fee Public	Total # Public	Leased, Meter & Free Spaces
Main Street Garage	363	8	329	26	0	26	355
Orange Street Garage	718	14	718	0	0	0	718
Iowa Ave Garage	518	12	456	0	50	50	506
Total City Garage Spaces	1,599	34	1503	26	50	76	
% of use			94%			5%	
<i>NOTE: Orange St. Garage open to public for Mayfaire and Christmas Parade.</i>							
SURFACE LOTS							
Location	Total Spaces	Handicap Spaces	Leased	Metered Public	No Fee Public	Total # Public	Leased, Meter & Free Spaces
Lot A: S. Mass Ave.	64	2	64	0	0	0	
Lot CM: S. Mass Ave.	140	4	140	0	0	0	
Lot C: N. FL Ave	101	2	94	0	7	7	
Lot D: N. Kentucky Ave	23	2	0	0	21	21	
Lot E: Cedar/Mass	11	0	0	11	0	11	
Lot F: Bay St. (2)	96	3	48	43	0	43	
Lot G: Dixieland	49	2	6	0	41	41	
Lot M: Park St.	22	2	22	0	0	0	
Lot N: N. FL Ave	20	0	0	0	0	0	
Lot MP: Munn Park	27	2	0	25	0	25	
Total Surface Lot Parking	553	19	374	79	69	148	
% of use			67%			27%	
<i>NOTE: The City estimates 90 spaces will be available for public use on the top deck of the Heritage Building garage.</i>							
ON-STREET PARKING							
Location	Total Spaces						
Boundaries: between Oak St. & Lime St., and between Massachusetts Ave. & Missouri Ave.	346						
<i>NOTE: On street includes 2 hour zones, handicapped, Loading Zones, pick-up zones, & leased</i>							
PRIVATE GARAGES							
Location	Total Spaces	Used Now	Unused				
SunTrust	289	248	41				
Heritage (Proposed)	340	0					
Private Total	629	248					

Sources: City Parking Staff, 08/23/99 inventory; Nancy Hey (SunTrust), 08/2000; Ledger (Business Section), 08/29/00.

ACCIDENT ANALYSIS

A continuing goal of all levels of government has been to provide a safe as well as efficient transportation system for its citizens. To assist in meeting this goal, the Florida DOT, Polk County Engineering Division, and City of Lakeland Public Works Department all cooperate in collecting and analyzing data on traffic accidents by location and cause of accident.

When an accident happens within or near an intersection, then it is recorded as being influenced at or by an intersection. Different codes are used to determine how the accident happened; there are numerous factors which contribute to the cause of accidents including weather, lighting conditions and road surface conditions.

In 2000, there were a total of 2,507 accidents reported in the City of Lakeland. According to the City of Lakeland Traffic Operations Department, accidents attributable to various causes include the following:

- Environmental causes (parked or stopped vehicles; trees, crops, bushes; buildings, fixed objects that obstruct the view and signs or billboards) accounted for 213 or 8.4% of all accidents reported in 2000.
- Roadway causes such as obstruction with/without warning; road under repair or construction; loose surface materials; holes, ruts, unsafe pavement edge; standing water; and worn or polished road surfaces accounted for 45 or 1.8% of all accidents that were reported in 2000.
- Weather or lighting concerns may have impacted about 36% (895) of all reported accidents; that is, the incidents occurred in less than ideal conditions due to rain/fog (217), driving at night, with street lights (390) or when roads were slippery or wet (288).
- At least 54% of the accidents (1354) occurred due to driver error without the above causes or concerns.

Of the 2,507 accidents reported in 2000, 1200 or 48% were reported as being at or influenced by an intersection. Of the reported accidents, 23 involved pedestrians, 7 involved bicycles and 102 involved alcohol or drugs. The highest rate of accidents reported in the City of Lakeland in 2000 occurred during January (12.8%) and February (12.6%). Friday had the highest accidents by day of the week (17.6%); 3:30 p.m. to 6:30 p.m. and 11 a.m. to 1:30 p.m. were the highest accident time periods, accounting respectively for 25% and 18.7% of all accidents. In summary, about ¼ of the accidents occurred in the first two months of the year, when tourism tends to be at its peak, and accidents occurred most at the end of the work week and at lunch time and the p.m. peak hour. Thus the data reflects what common sense relates to most drivers: that when our roads may be most crowded and when drivers tend to be tired and/or rushed/impatient, accident rates rise. This time of the year also brings drivers who are unfamiliar with the road network and driving habits of the area.

The term "first harmful event" is used to describe what event started the accident. Historically, rear end collisions have tended to be the top "first harmful event"; in fact, of all accidents reported in 2000, rear end collisions were the highest with 810 (32%). Other top initial accident causes in 2000 were: angle accidents, accounting for 566 (22.6%); left turns accounting for 11.6%; side swipes accounting for 8.7%; backing accounting for 4.5%; right turns accounting for 2.0%; and head-on collisions accounting for 3%. The other 15.6 % had various causes.

High Accident Locations

The City of Lakeland's traffic data has typically examined at least the top 10 accident locations in the City each year. Table III-15 identifies the highest accident locations at or near signalized intersections in the City of Lakeland for 2000, and the leading first harmful event.

**TABLE III-15
HIGH ACCIDENT LOCATIONS, CITY OF LAKE LAND – 2000**

LOCATION	NUMBER OF ACCIDENTS	FIRST HARMFUL EVENT*	% ATTRIBUTED TO THIS CAUSE
Massachusetts at E. Parker St.	15	AC	45%
Drane Field Rd. at S. Florida Av.	13	REC	37%
S. Florida Av. at Lemon St.	12	AC	73%
Lake Parker Ave at E. Memorial Blvd.	11	REC	45%
Martin L. King Jr. Av. at W. Memorial Blvd.	10	REC & AC	33% EACH
Drane Field Rd at Harden Blvd.	9	AC	53%
Crystal Lake Dr. at Fredricksburg Ave	8	REC & AC	45% EACH
Crevasse St. At N. Road 98	8	REC	43%
George Jenkins Blvd At S. Wabash Ave	8	REC	36%
Florida Av. at W. Main St.	8	LEFT TURN	33%

Source: City of Lakeland, Traffic Operations Department, Accident Analysis, 2000.

* REC=REAR-END COLLISION AC=ANGLE COLLISION

NON-MOTORIZED TRANSPORTATION

Since the amount of highway needs always exceeds available revenue, local, county and State agencies have begun to evaluate transportation needs in terms of personal mobility, which includes but is no longer limited to automobile mobility. As the City's population increases and road congestion becomes a growing concern, the City must develop a transportation system that relies less on the automobile, and more on alternative modes such as bicycles, walking and transit. Future residential and non-residential developments should consider the needs of bicyclists and pedestrians in order to make those modes of travel a more viable alternative to the automobile.

In 2000, Florida led the nation in bicycle and pedestrian injuries and fatalities. Safety is a major issue for both bicycle and pedestrian planning within the Polk County area. This issue, however, should not eclipse other significant problems. In addition to safety, convenience and connectivity are other key factors that must be addressed in order to make non-motorized travel a viable alternative to the automobile. Roadways and developments should be designed to be comfortable to the bicyclist/pedestrian, include secure parking facilities for bicyclists, and connect with other modes, such as transit, that can be used for traveling over greater distances. Both safety measures and support facilities such as transit shelters are required to meet the needs of bicyclists and pedestrians and to encourage modes of travel which are an alternative to reliance upon the automobile. Illustration III-11 depicts the location of the various intermodal facilities in the Lakeland area, not including the extensive sidewalk network in the City.

Types of Non-Motorized Travel

Historically, bicycle and pedestrian facilities have been considered to be synonymous with one another. Planners and engineers increasingly understand that two types of facilities are needed: bicycle lanes which take into consideration the bicycle's status as a vehicle that can travel on the roadway with cars and at a considerable speed, and sidewalks or paths which are separated from adjacent street traffic (including bicycles). In general, bicycle and pedestrian trip purposes can be divided into two broad types, utilitarian (e.g., to and from work and grocery store) and recreational (e.g., exercise). Most trips will have some recreational and some utilitarian purposes. Bicycle and pedestrian trip generators are particular locations which represent a travel destination point, such as libraries, schools, employment centers, recreation areas, shopping centers, etc.

State and Local Programs: The Florida Department of Transportation's Pedestrian and Bicycle Program was established to allow for a comprehensive approach to statewide bicycle planning not limited to the design and engineering of bicycle facilities but also including the development of safety and education courses, and provision of pedestrian and bicycle law enforcement training. In addition to the staff that operates from FDOT's Safety Office in Tallahassee, each FDOT District has a staff person that is assigned to address bicycle/pedestrian issues.

The Polk Transportation Planning Organization (TPO) developed comprehensive bicycle and pedestrian plans in 1989 and 1991, respectively, which provide guidelines for policy planning for non-motorized modes and assist in their integration into the transportation system and recreational facilities in Polk County and its municipalities. The TPO's Citizens Advisory Committee also includes seats for bicycle and pedestrian advocates. While there is no longer a TPO coordinator for bicycle facilities, a staff planner has been assigned the responsibility of working with the State of Florida and Polk County Departments of Transportation in relevant issues and accepted practices. This staff planner also serves as the TPO's representative on the Polk County Community Traffic Safety Team, a committee consisting of local law enforcement, education, public works and planning representatives that meets monthly to review transportation safety issues throughout Polk County.

Illustration III-11:Existing Transportation System
Inter-Modal Facilities

Local and State Policies Regarding Transportation Facilities: The Bicycle Safety Law of 1983 defines bicycles as vehicles and accords bicyclists the same rights and responsibilities as motor vehicle operators. Florida cyclists have the right to full use of the roadway, subject to established traffic laws. To support this use and to promote safety, the City has begun to sign roadways and bike lanes with signage which alerts the motor vehicle operators as well as bicyclists and pedestrians of the intended use. Likewise, paved shoulders and bicycle lanes are being integrated into major road projects within the City such as Griffin Road, US 98 North near Lakeland Square Mall, and the In-Town Bypass. It is FDOT's policy to incorporate four-foot "paved shoulders" into most resurfacing projects for two-lane roadways and four-lane highways with open drainage systems. Although not officially designated as bicycle lanes, these paved shoulders give bicyclists the opportunity to operate on highways with a lesser degree of conflict with automobiles.

When a capacity project is undertaken with Federal dollars, FDOT must conduct a Project Development and Environment (PD&E) Study that determines where sidewalks, bicycle lanes/paved shoulders and street lighting should be included on a project. The TPO's *2025 Long-Range Transportation Plan (LRTP)* calls for even earlier coordination with FDOT on these projects in order to give local governments, and the TPO an opportunity to voice their preference on where these features should be included in a road project. The City encourages the inclusion of both sidewalks and bicycle lanes in the design of future capacity projects within its corporate limits. The City also encourages Polk County to include sidewalks and bicycle lanes into the designs of its projects within the City. Capacity projects that are constructed by the City tend to include dedicated bicycle lanes and sidewalks as standard design features.

For utilitarian trips, pedestrian facilities will tend to be quite different than those that are developed to accommodate bicyclists. Generally, concrete sidewalks must be constructed which are separated from an adjacent roadway by concrete curbs and/or a grass strip. At intersections, crosswalks must be designated and pedestrian signals must be installed to safely control automobile and pedestrian traffic.

Sidewalks: As of 2001, approximately 43 miles of the sidewalk network within the Lakeland Urban Area were maintained by the City, 34 miles were maintained by the State and nine miles were maintained by the County. Illustration III-12 shows the location of sidewalks in Lakeland as well as sidewalk gaps within the 1/4 mile buffer area surrounding the 30-minute transit routes. The City funding of sidewalk improvements has historically centered on downtown redevelopment and streetscaping therein, or upon the functional class of a roadway. That is, where a road was classified as a collector roadway, a sidewalk could be constructed if, for instance, it completed a connection in the network and/or accessed a public facility. By 2000, it became apparent that sidewalk needs should be funded on a prioritization basis that considered things such as whether or not the sidewalk was within the 1/4 mile distance to a bus route offering 30 minute service to residents, or if the City had identified the sidewalk as a need in a neighborhood plan. Polk County has historically tended to fund sidewalk needs primarily to serve public schools. An up-to-date County sidewalk inventory would

be ideal; while such an inventory would be a very labor intensive project due to the time it requires, crucial sidewalk network gaps or deficiencies could be located and act as a guide to future expenditures.

CITYWIDE PATHWAYS PLAN

The City of Lakeland's 2009-2018 Capital Improvement Plan programs approximately \$1 million per year for construction and maintenance of sidewalks on the City's public street system. These sidewalks are generally planned and designed to maximize connectivity to transit routes and provide for short trips between a neighborhood and adjacent school, retail center or recreation facilities. Bicycle lanes and unmarked paved shoulders are also evaluated for inclusion in all roadway construction projects-again with the intent of providing more localized connectivity between a mix of nearby residential and non-residential uses. The City also works with the Polk Transportation Organization (TPO), Polk County and Florida Department of Transportation (FDOT) to include sidewalks, bicycle lanes and paved shoulders on all public roadway capacity and maintenance projects in the Lakeland Planning Area.

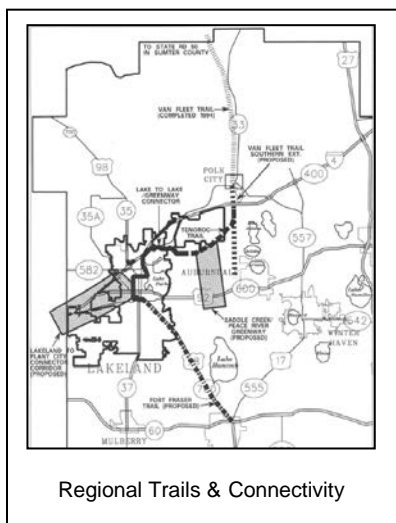
As is the case with the roadway network, it is necessary to classify and evaluate bicycle and pedestrian pathways according to the function they serve in overall mobility. In the Lakeland area, a primary pathway network is emerging that provides regional connectivity and improved accessibility to major residential communities and activity centers throughout our community. The Lake-to-Lake Bikeway and Greenway Connector network is the center of this regional trail system, ultimately connecting the Van Fleet National Trail and TECO-Auburndale Trail with the Fort Fraser Trail between Bartow and Lakeland.

Lake-to-Lake Bikeway and Greenway: The Lake-to-Lake Bikeway and Greenway Connector network, as depicted in Illustration III-13, includes primary on- and off-road pathways that link the City's recreational facilities, lakes, historic neighborhoods, activity centers. The hub of the Lake-to-Lake network is Lake Mirror Park in Downtown Lakeland, which includes Barnett Family Park, Lake Mirror Center, Hollis Gardens and the historic loggia constructed during the 1920s during the "City Beautiful" planning movement. Other major destinations on the Lake-to-Lake Network include Lake Hollingsworth and Florida Southern College, Peterson Park and Lake Bonny Park across from Lakeland High School. In addition to providing recreational corridors for walkers, joggers and bicyclists, the Lake-to-Lake network serves an important transportation function by providing attractive parallel bicycle/pedestrian corridors to constrained roadways such as South Florida Avenue in the Dixieland District. The network Lake to Lake system also enhances access to fixed-route transit (bus) services provided in the Lakeland metro area.



As of 2009, some of the Lake-to-Lake Network improvements included the designation of bicycle lanes on Lake Hunter Drive, and road-diet projects on Dr. Martin Luther King Jr. Avenue and the south side of Lake Wire Drive, near the Citrus Connection main bus terminal. A road-diet project on Parker Street east of Massachusetts Avenue was programmed in FY 2009-2010, including \$800,000 in Federal Transportation Enhancement Program and Mid-Town Community Redevelopment Area funds. This project was intended to transform a one mile section of Parker St. from a four-lane undivided collector roadway into a divided two-lane street with bicycle lanes, enhanced crosswalks, transit amenities and landscaped medians.

General Van Fleet State Trail/TECO-Auburndale Trail: Opened in 1994, the General



Van Fleet State Trail extends 29 miles north from Polk City to State Road 50 at Mabel in Sumter County. The Van Fleet trail was constructed primarily with Federal Transportation Enhancement Program funds that are available for such bicycle and pedestrian facilities. With the construction of the TECO-Auburndale Trail, Lake Myrtle Park and pending southern extension of the Van Fleet Trail, the City of Auburndale and Town of Polk City continue to make critical linkages between this regional trail facility and urbanized population centers in central Polk County. Utilizing Federal Transportation Enhancement Program dollars, Polk County will construct a 12-foot wide multi-use trail facility along the south side of its Pace Road roadway project between Berkley Road and the programmed Polk Parkway interchange in the City of Lakeland.

The Pace Road interchange design will include a continuation of the Pace Road Trail to a multi-use trail that is constructed as part of the proposed SR 33-USF/Williams East-West Road project. Combined, this new east-west trail corridor will connect the Van Fleet and TECO-Auburndale Trails with the University of South Florida Polytechnic campus scheduled to open in 2011 and eventually will connect to the City's Lake-to-Lake Bikeway and Greenway Connector network in the central part of Lakeland.

Fort Fraser Trail: Opened in 2006, the first section of the Fort Fraser Trail extends approximately seven miles south from State Road 540 (Winter Lake Road) south to State Road 60 in Bartow. Funding for this first section of the Trail was provided by FDOT with construction being managed by the City of Lakeland. Polk County provides maintenance and security along the Trail. Trailhead facilities were constructed near the Lakeland campus of the University of South Florida/Polk Community (State) College and in Highland City. The Highland City Trailhead was partially funded with FDOT Park and Ride Program grant dollars and serves as a park-and-ride facility for the



“Bartow Express” bus route serving the US 98 corridor between Lakeland and Bartow. In 2004 a U.S. 98 Corridor Access Management Plan (CAMP) was developed and adopted by FDOT in conjunction with the City of Lakeland, City of Bartow and Polk County; the CAMP limits roadway crossings of the Fort Fraser Trail along its entire length. Once the railroad line that operates along US 98 north of SR 659 (Combee Road) is abandoned, a northern extension of the Fort Fraser Trail is planned to link the trail to the Lake Mirror Park and the Lake-to-Lake Bikeway Greenway Network in Downtown Lakeland, represented by Pathway Segments #4 and #16 in Illustration III-13A. Potential trailhead facilities exist along this future trail extension at the City’s Lake Bonny Park and at a park-and-ride facility constructed beneath the US 98 (In-Town Bypass) overpass with FDOT park-and-ride and intermodal program dollars. A second connection between the Lake-to-Lake Network and Fort Fraser Trail is planned via Lakeland Highlands Road, along the south side of SR 570 (Polk Parkway), through a bicycle/pedestrian easement negotiated with the Lakeland Marketplace Shopping Center (see Pathway Segments #20 and #15.)

Pathways Vision Plan: While significant progress has been made in implementing the Lake-to-Lake Bikeway/Greenway Network, significant gaps remained as of 2009. These gaps prevent the network from achieving its full potential as a system that



encourages residents and visitors to use alternative forms of transportation such as bicycles, walking or transit for intra-city trips. Thus, the City initiated a Pathways visioning and planning effort as described below in order to identify gaps and deficiencies and obstacles, receive public input and prioritize improvements in the pathway network. Beginning in 2007, City staff and its project consultant (Renaissance

Planning Group) embarked on an effort to identify key gaps in the Lake-to-Lake Bikeway/Greenway Network and other corridors to connect the City with nearby regional trail facilities. Focus group meetings and a day-long charrette were conducted to obtain input on existing barriers and pathway opportunities that should be addressed during the Pathways Plan Update. The project consultant conducted a “handlebar” survey in the field to identify other additional barriers, critical crossings and right-of-way constraints in the Central City area. Additional input was also solicited from the Lakeland Citizen Advisory Committee and the Neighborhood Advisory Council comprised of neighborhood association officers.

Not surprisingly, the most significant barriers to a well-connected pathway system were identified as major roadway corridors such as Florida Avenue, Memorial Boulevard, Interstate 4 and Lakeland Highlands Road. The CSXT rail line traversing Downtown Lakeland was also seen as a barrier to cross-town mobility. In terms of potential pathway opportunities, corridors along natural features such as the



Pathways Vision: Planning for Connectivity

eastern shore of Lake Parker and greater use of parallel local streets and alleys were seen as routes that should be pursued for future development or enhancement and as alternatives to pathway use along congested and constrained roadway corridors such as South Florida Avenue through the Dixieland District.

Potential pathway corridors throughout the Lakeland Planning Area were prioritized using stakeholder input and the handlebar survey; other considerations in the prioritization process were corridors identified through the Polk Urban Greenways (PUGS) planning effort, the Lakeland Southwest Sector Plan, the Lakeland Parks and Recreation Master Plan and Polk Transportation Planning Organization Long-Range Transportation Plans. Candidate corridors were prioritized using the following *objective* criteria:

- **Lake-to-Lake Bikeway/Greenway Gaps:** Is the Pathway project located on a designated segment that has not been completed to date?
- **Proximity:** Project distance to schools, transit stops, lakes, parks and activity centers?
- **Network Connectivity:** Project connectivity to existing trails, sidewalks or bicycle lanes?
- **Congested Roadways:** Is the project parallel and located within ¼ mile of a congested roadway?
- **Land Use Characteristics:** Is the project located within walking distance of Community Redevelopment Areas or City's "M3" Multi-Modal Level-of-Service District?
- **Transit Emphasis Corridor:** Is the project located in close proximity to the South Florida Avenue Transit Corridor or other locations with premium transit services.
- **Connectivity between Residential and Commercial/Employment Centers:** Does the project provide connectivity between a residential use and Community or Regional Activity Center as identified on the City's Future Land Use Map?
- **Major Roadway Crossing:** Does the project traverse a major roadway?

Pathway corridor project priorities were stratified into four tiers, based on segment scoring utilizing these criteria. The top tier of pathway corridors is concentrated in the central portion of Lakeland, and includes the future northern extension of the Fort Fraser Trail and connections from it to Lake Parker Park and Lake Hollingsworth. Other high priority corridors include connections to Lake Hunter, Lake Beulah and Lake Wire north to Lake Parker Park via Bella Vista Street. Illustration III-13A and Table III-15A (Pathways Projects) include the specific corridors included in the Pathways Vision Plan and their relative priority for implementation.

Pathway Project Implementation: Through the Pathways Vision Plan, projects on the prioritized Pathway Segments may be implemented through the following methods, where feasible:

- As elements of City capital improvements, including road projects;
- Through stand-alone projects funded by the City with local funds and/or discretionary grant funds from State and Federal sources.
- Through coordination with Polk County and FDOT on road projects programmed in the Lakeland Planning Area;
- As development requirements for projects within the City of Lakeland, including Developments of Regional Impact (DRI) or Planned Unit Developments (PUDs); and
- As suggested Polk County development requirements to include pathways segments in new or modified DRIs or PUDs within the Lakeland Planning Area and/or as a means to increase regional connectivity.

However, due to factors such as budgetary, environmental and right-of-way limitations, flexibility is recommended for specific approaches taken to implement the pathway corridors identified in the Pathways Vision Plan. For example, constructing a 12-foot wide dedicated multi-use trail through Downtown Lakeland is likely not feasible; however, such a facility could be incorporated into the design of new residential or retail development in suburban or rural areas around Lakeland.

Projects to be implemented through the Pathways Vision Plan should include:

- **12-Foot Wide Multi-Use Trails** constructed within 20-foot access easements or rights-of-way as stand-alone projects or constructed in conjunction with roadway improvement projects (*Estimated Unit Cost per Polk TPO: \$515,500/mile*);
- **Sidewalks** on designated Pathways Segments in neighborhoods or business districts where bicycles can share low-volume roadways with other vehicular traffic, signed with Lake-to-Lake Network and “Bikes Sharing Roadway” advisory signage (*Estimated Unit Cost per City Public Works Dept.: \$250,000/mile*);
- **Designated Bicycle Lanes** on local or collector streets with low-volumes (*Estimated Unit Cost per City Public Works Dept. \$12,000/mile*); and
- **Unpaved Trails** within 20-foot wide access easements through natural areas or between natural and developed areas to serve an added benefit as wildfire buffer.

Funding for projects on many of the pathway segments that have been scored in the Pathways Vision Plan will be considered for inclusion in the City’s Capital Improvement Plan (CIP). For those City-funded segments, five of the highest ranking segments will be selected each year for more detailed analysis to determine the most effective and efficient approaches to providing safe and attractive pathways for non-motorized transportation. As opportunities arise, other corridors will also be evaluated for implementation in conjunction with roadway projects constructed by the City, County and FDOT and/or private development activity occurring around the City.

The following “subjective” measures will be utilized in the selection of specific projects on each Pathway Segment, for funding in the City CIP:

- **System connectivity and continuity.** This relates to the project’s ability to link on-and off -road facilities and to support a more seamless non-motorized transportation network between trip origins and destinations. The intent is to avoid ranking of piecemeal projects that may not provide much benefit to system or corridor continuity.
- **Assessment of cost feasibility (or cost-benefit),** which includes potential right-of-way acquisition and community or business impacts relative to the potential value of the connection.
- **Safety Mitigation.** The ability of the project to mitigate perceived safety or potential safety problems regardless of crash data history. This information is derived from focus groups, discussions with agency staff, community input and/or professional judgment.
- **Mitigation of Obstacles or Barriers.** Because barriers are difficult to precisely define and compare equitably, this subjective measure considers the degree to which the project helps overcome barriers, such as a wide highway, fast traffic, an interstate, drainage canal or similar feature. Many barriers were defined in the focus groups and community charrette and will be addressed under this criterion.

Some regional pathway facilities may be only partially funded by the City of Lakeland, but may be eligible for regional or statewide discretionary funding sources, such as grants provided through the Florida Department of Environmental Protection’s Office of Greenways and Trails. The Polk Transportation Planning Organization’s 2030 Long-Range Transportation Plan, adopted in 2005, includes the following Multi-Use Trail Needs, including project limits and estimated project cost:

- **Fort Fraser Trail II** - SR 540 to Downtown Lakeland (including SR 570/Polk Parkway Crossing: \$5.1 million
- **Lakeland to Plant City Connector** – Lake Hunter Boulevard to Hillsborough County Line: \$3.7 million
- **Lake Hunter to Lake Hollingsworth Trail** – Lake Hunter Trail to Lake Hollingsworth Trail: \$556,740
- **Tenoroc Trail** – Lake-to-Lake Connector to TECO-Auburndale Trail near Braddock Road: \$5.5 million
- **Williams Trail** – SR 570 (Polk Parkway) to TECO-Auburndale Trail via Mt. Olive Road: \$1.1 million
- **Williams Trail** – SR 570 (Polk Parkway) to TECO-Auburndale Trail via Pace Road
- **Williams Trail** – SR 659 (Combee Road) to Alternate B Connector: \$1.8 million

- **Williams Trail** – Alt. B Connector to SR 570 (Polk Parkway): \$644,375
- **Williams Trail** – Tenoroc FMA to Williams DRI and Alternative B: \$1.3 million

Publicly-Funded Pathway Project Examples: Bicycle and pedestrian facilities are evaluated for inclusion in all new or expanded roadway projects implemented by the City of Lakeland. The City's planned Edgewood Drive Extension project, between SR 37 (South Florida Avenue) and SR 563 (Harden Boulevard), will include Pathway Segment #5, providing an important connection between the Lake-to-Lake Network and southwestern trail corridors in the vicinity of Lakeside Village and employment centers around Lakeland-Linder Regional Airport.

The City also evaluates the feasibility of including pathways projects in resurfacing or other routine maintenance projects to be implemented by the Public Works Construction and Maintenance Division. For example, designation of bicycle lanes was made during the resurfacing projects on Lake Hunter Drive and Lake Wire Drive. Additional such improvements are expected to be evaluated for resurfacing projects on Lime Street, Lake Bonny Drive and Interlachen Parkway in order to improve the pathways connectivity between Lake Bonny Park and Lake Parker, identified as Pathway Segments #60, #9, and #56 in the Pathways Vision Plan.

Pathways Requirements for New Development Activity: In order to maximize neighborhood-neighborhood and neighborhood-activity center inter-connectivity, the City of Lakeland generally requires new residential and mixed-use developments to include dedicated bicycle and pedestrian facilities such as paved multi-use trails, bicycle lanes or natural trail facilities as conditions of Development of Regional Impact (DRI) or Planned Unit Development (PUD) approval. A few key examples are given below:

- **Williams DRI:** The amended Williams DRI Development Order approved in 2007 requires the construction of a 12-foot wide multi-use pathway adjacent to the SR 33-USF/Williams E-W Road which will traverse the area between SR 33 and the Polk Parkway (see Pathway Segment #12.) Additional multi-use trail corridors are required throughout the Williams DRI to provide connections to the USF Polytechnic campus and Tenoroc Fish Management Area. These general corridors are represented by Pathway Segments #22, #34 and #35. All of these corridors through the Williams DRI will provide critical connections between the Lake-to-Lake Network and Van Fleet/TECO-Auburndale regional trail corridors.
- **Lakeland Central Park DRI:** The Lakeland Central Park Development Order approved in 2008 requires the construction of an eight-foot wide multi-use pathway along the north side of its primary spine road, Flagler Park Boulevard, which traverses an area between SR 572 (Airport Road) and CR 542 (Old Tampa Highway). An additional paved pathway is required on SR 572 along the project frontage. An unpaved trail connection through the center of the DRI is required between Flagler Park Boulevard and CR 542 (Old Tampa Highway). These corridors are represented by Pathway Segments #17 and #32 and are intended to provide connectivity options between Lakeland and Plant City as identified in the Polk TPO 2025 Long-Range Transportation Plan. These

corridors could provide a more viable alternative routing to Pathway Segment #40, which is proposed in the TPO's 2030 Long-Range Transportation Plan.

- **Southwest Sector Plan:** The City's recently-completed Southwest Sector Plan includes the implementation of Pathway Segment #71, along Poley Creek south of SR 570 (Polk Parkway), adjacent to Wagner Elementary School and through the Towne Park and Hawthorne Mill residential communities. Alternative bicycle and pedestrian facility plans have been incorporated into the PUD regulations for both Towne Park and Hawthorne Mill and must be constructed during site development activity. This is another corridor that will improve connectivity between Polk County and Hillsborough County.

Parks Connectivity Plan: This sub-component of the Citywide Pathways Vision Plan included specific analyses of and recommendations to address access improvement needs in the vicinity of parks, recreation facilities and open spaces around Lakeland based on the following standards for each facility type.

- **Community Parks** – Community parks serve a larger population than neighborhood parks, and provide more intensive or major recreational services and activities. A community park is a land-based park and is, ideally, paired with one multi-use facility.
 - **Connectivity** – Community Parks should have dedicated pathway access to neighborhoods and other park facilities throughout the city via the Lake-to-Lake Greenway Connector Network. Since these types of parks draw from a larger geographical area, access and site design should accommodate automobiles, bicyclists, pedestrians and transit patrons.
- **Neighborhood Parks** – Neighborhood parks provide the basic recreational needs to neighborhoods. They are accessible and ideally within walking distance of the residents of each neighborhood.
 - **Connectivity** - Neighborhood Parks have a smaller service area than Community Parks and should have unobstructed access within a general $\frac{1}{4}$ to $\frac{1}{2}$ mile radius of the park site. Access should be available via dedicated pathways or sidewalks adjacent to local streets. Internal site design should include connections to these external bicycle/pedestrian facilities and include bike/bus amenities where feasible.
- **Scenic Parks** – Scenic parks are primarily passive recreation oriented parks for lakeshores, greenways, scenic views, or historical sites. These areas are generally small and attract the pedestrian rather than the motorist.
 - **Connectivity** - Scenic Parks generally draw users from the proximate vicinity near the park but can also draw users from throughout the city and therefore should be connected by multiple modes, including sidewalks and dedicated pathways. Some Scenic Parks, by design, provide connections between other types of park facilities as components of the Lake-to-Lake Greenway Connector Network.

- **Conservation Areas** – Conservation/Preservation areas in some cases could support development with special conditions to reduce environmental impacts, while maintaining their natural functions typically including floodplain functions and wetland functions. The City has designated these areas due to environmental limitations for development and/or to maintain environmental integrity and quality, including habitat, water quality and filtration, flood control, recharge, well fields, and other related purposes. Consequently, these areas will most likely remain undeveloped and are not generally accessible by the public for recreation purposes although passive recreation, trail, boardwalk or other complementary recreational uses could be proposed.
 - **Connectivity** - Due to the undeveloped nature of most Conservation Areas, dedicated connections are not always feasible or desirable. Where appropriate, Conservation Areas could be served with at least unpaved pathways to provide a natural biking and hiking environment and paved pathways where feasible for other users such as seniors or the handicapped.
- **Special Use Facilities** – Special use parks and facilities (buildings) have been created to fulfill certain unique needs of the city, such as meeting facilities.
 - **Connectivity** – Main mode of access is typically by automobile, but alternative access should be accommodated for bicyclists, pedestrians and transit patrons who do not have access to personal automobiles.
- **Urban Parks** – Urban parks serve the entire City and are located primarily in the downtown area. These parks often contain public art such as sculptures.
 - **Connectivity** – Lakeland's Urban Parks are generally located in or near the central business district. Where necessary, enhanced sidewalk and pathway connections should be made to these facilities, such as through the streetscape program for Downtown parks. It is recommended there be ¼ mile of unobstructed access to surrounding areas, containing significant number of residents and/or employees. Urban Parks draw from a large citywide geographical area, therefore connections should be made via the Lake-to-Lake Greenway Connector Network and be located in close proximity to transit routes.
- **Sport Complexes** – Sports complexes are specialized to primarily provide sports venues/field complexes, but may include other facilities such as a multi-purpose field and/or play equipment. A sports complex may include a stadium or clubhouse.
 - **Connectivity** – Sports Complexes provide major athletic facilities that draw patrons from throughout the city and region, or providing recreation facilities for a more localized population in adjacent neighborhoods. While primary access is via the automobile, site access and design should accommodate bicyclists, pedestrians and transit patrons through

sidewalks, pathways and/or on-road bicycle lanes and appropriate amenities.

The full Parks Connectivity Plan, found in Support Document V-Two in the Technical Support Document, contains two sections and sets of recommendations for each of the 73 facilities evaluated, including the Fort Fraser Trail operated by Polk County:

- Section One: Individual park analysis and connectivity recommendations; and
- Section Two: Park system promotion recommendations.

Section One focused on the ability to reach parks and recreational facilities on foot or bicycle, which is crucial to achieving a truly livable community. This section of the Parks Connectivity Plan was developed with the following goals:

- Improving community and neighborhood connectivity to the City's park system;
- Identification of passive and active connections that address barriers or gaps that hinder park access, such as:
 - Missing sidewalk or bicycle network segments leading to a park facility;
 - Physical barriers such as fences, wall or ditches that preclude direct access;
 - Major highways that isolate park and recreation facilities from surrounding neighborhoods, employment centers;
 - Absence of handicap ramps along key access routes to a facility.
- Identification of specific projects to improve connectivity

Each of the 45 projects contained in the Parks Connectivity Plan fit into four general categories, also depicted in Illustration 13B:



Bicycle Lanes. Indicated when the addition of designated bicycle lanes is necessary to support a recommended connection.



Enhanced Pedestrian Crossing. Enhance an existing crossing to increase automobile and pedestrian visibility and to emphasize connections between communities and park facilities. Improvements for enhancement should include a textured pavement, painting the crossing beyond simple stripes, placing signage along the roadway to notify drivers of crossing and/or a median refuge.



Create Pedestrian Crossing. Defines where an existing crossing is identified, but should be enhanced to better convey the importance and connection to the park connectivity system.



Neighborhood Connector – Provides non-motorized connections between parks and neighborhoods, via select corridors. Connectors could include sidewalks, multi-use pathways and trails connections.

The City Parks and Recreation Department will be responsible for the periodic review and prioritization of these connectivity projects, which will be considered for incorporation into other Pathways Plan projects throughout Lakeland or as stand-alone projects to be programmed in the City's Capital Improvement Plan. City staff will also request that Parks Connectivity projects be included into any City, County or FDOT resurfacing or maintenance projects on adjacent streets including FDOT projects on US 92 (Memorial Boulevard), US 98 (North Florida Avenue) and SR 33 (Lakeland Hills Boulevard).

Section Two identified steps that can be taken to better promote the City's Parks facilities and the Lake-to-Lake Bikeway Greenway Connector network, such as through a dedicated Web page, increased wayfinding signage and maps of the parks and Lake-to-Lake systems:

Safety: The City of Lakeland has addressed the issue of safety for bicyclists and pedestrians, and continues to promote safety-mindedness for bicyclists, pedestrians, and motorists. Bicycle routes are being designated and marked by means of bike lanes, sidewalks, "bikes sharing roadway" signs, Lake to Lake Bikeway signs, and maps. Flashing crosswalks (pedestrian-activated strobes located within a crosswalk that inform motorists of the pedestrians' intent to cross the street) were installed on Lime Street at the Lakeland Center, and along Ingraham Avenue on the Florida Southern College campus as part of a pilot project sponsored by FDOT. As of 2001, the City proposed that \$65,000 in local dollars be budgeted to fund additional flashing crosswalks in Fiscal Year (FY) 2006.

Traffic Calming: The City has enacted a "Neighborhood Traffic Management Program" aimed at improving safety in its residential areas through the use of various traffic calming techniques. As of 2001, the City has installed and evaluated these various measures, including:

- Street Narrowing (Prado and Palencia Place)
- Traffic Island (Success Avenue)
- Road Closure (Edgewood Alley)
- Speed Tables (Eastway Drive)
- Speed Humps (Westover Street)

The City Public Works Department's evaluations of each measure has shown that both automobile speeds and volumes tended to decrease where traffic calming measures were installed, with the exception of Prado Avenue — there, roadway volumes increased slightly. The City has budgeted \$50,000 annually in its CIP for additional traffic calming projects throughout Lakeland. Through these programs, Lakeland is actively seeking a more bicycle-friendly city, and promotes this through safety practices and safe design.

FUNDING OPTIONS

Since the 1990s, the City of Lakeland has been very successful in obtaining Federal Transportation Enhancement Program (TEP) funding for bicycle/pedestrian projects to complete Lake-to-Lake Bikeway Greenway network improvements within the City, such as the Johnson Avenue Streetscape project in the vicinity of Florida Southern College. The City has obtained approximately \$3.2 million in TEP funds between 1993 and 2008. Approximately \$400,000 per year is available to the Polk TPO for Enhancement Projects that are prioritized for funding and programmed in the FDOT Five-Year Work Program approximately two years prior to implementation. The Polk TPO has also established funding set-asides totaling \$4 million per year for “Congestion Management System” enhancement supplements to programmed FDOT resurfacing projects such as sidewalks, paved shoulders and transit stop improvements through the “Early and Continued Coordination on Road Projects” process. The TPO sets aside an additional \$1 million per year of its Federal funding allocation for multi-use trail projects that are on the regional network.

In terms of local funding, the City of Lakeland provides required local funding matches to Federal and State discretionary funding awards for pathways projects, as needed. The Dixieland, Downtown and Mid-Town Community Redevelopment Areas also provide funding for bicycle/pedestrian pathway enhancements on an as-needed basis in compliance with their redevelopment plans. The Mid-Town CRA has advanced the full \$800,000 cost to complete the Parker Street Multi-Modal Corridor Enhancement Project, with \$400,000 in TEP funding being reimbursed to the Mid-Town CRA in FY 2011/12.

The City has budgeted nearly \$3 million of local funds between FY 2000-2005, \$1.3 million of which is programmed for sidewalk repair and replacement. In addition, street improvements are programmed that will incorporate sidewalks into their designs. As explained in the Mass Transit section of this element, future sidewalk prioritization cycles will focus on linkages to transit routes, with headways of 30 minutes or less. The Polk County Board of County Commissioners has historically programmed about \$250,000 annually for sidewalk improvements on County roadways, some of which are in the Lakeland Area. Polk County places a high priority on safe connections to schools, based on such criteria as the volumes of the adjacent roads, speed of traffic and the project cost. The City must work with the County to include other considerations, such as connections to transit.

Illustration III-12: Existing Transportation System
Sidewalk Network and Sidewalk Gaps

Illustration III-13: Lake-to-Lake Bikeway/Greenway Connector

Illustration III-13A: Proposed Pathway Corridors

**TABLE III-15A
CITYWIDE PATHWAYS PLAN
Pathways Corridors**

ID	Pathway Corridor Name	From	To	Jurisdiction	Length
1	Ft. Fraser to Lake Parker Connector	L Bonney Trail @ E Lime St.	L Parker Trail @ W Lake Parker Dr.	C/M	3.93
2	Lake Hunter-to-Lake Hollingsworth Trail	Lake Hunter Trail	Lake Hollingsworth Trail	C/M	1.08
3	Lake Bonny Trail Connection South	Lake Hollingsworth Drive	Bartow Road	C/M	0.53
4	Fort Fraser Trail	North of SR 570 (Polk Parkway)	Downtown Lakeland Lake Mirror Promenade	C/M	4.07
5	Lakeland-to-Plant City Connector Alt. 1	SR 37 Florida Ave	SR 563 Harden Blvd	C/M	1.12
6	Lake Hunter Trail	Hartsell Road	Harden Blvd	C/M	0.51
7	Lake Hunter Trail	Hartsell Road	Existing Lake Hunter Trail	C/M	0.34
8	Lake Hunter Trail	Cresap Street	Waverly Place	C	0.26
9	Lake Bonny Park Connection North	Lake Bonny Park	Lake Bonny Shore	C	0.61
10	Tenoroc Trail	Lake Parker Park near SR 33	SR 659 Combee Rd south of SR33	C/M	4.49
11	Lake Beulah Trail	Lemon St	Sikes Blvd	C	0.88
12	Williams Trail Alternative 1	Walt Williams Road	SR 570 (Polk Parkway)	C/M	5.78
13	Circle B Bar Connector*	Fort Fraser Trail @ PCC Entrance Rd	Circle B Bar Reserve	NC	2.27
14	Lakeland-to-Plant City Connector Alt. 2	SR 563 Harden Blvd	Lake Hunter Blvd	C/M	0.37
15	Lakeland Highlands Trail	US 98	Lakeland Highlands Road	M	1.68
16	Fort Fraser Trail Bridge*	SR 540 (Winter Lake Rd)	North of SR 570 (Polk Parkway)	NC	0.54
17	Lakeland-to-Plant City Connector Alt. 2	SR 572 Airport Rd @ SR 570 Polk Pkwy	SR 563 Harden Blvd	C/M	3.55
18	Peace River Greenway*	SR 540 Winter Lake Rd	US 92	NC	3.90
19	Lakeland-to-Plant City Connector Alt. 1	SR 563 Harden Blvd	SR 572 Airport Rd	C/M	4.04
20	New Jersey Trail	Lakeland Highlands Road	New Jersey Road	C	0.78

ID	Pathway Corridor Name	From	To	Jurisdiction	Length
21	Williams Trail Alternative 2	SR 570 (Polk Parkway)	TECO-Auburndale Trail via Mt. Olive Road	C/M	2.23
22	Williams Trail Alternative 2	SR 659	Alt B Connector	C/M	3.54
23	Auburndale Trail*	Old Dixie Highway	Lake Myrtle Drive (southern terminus of Auburndale*)	NC	0.93
24	Cypress Trail*	Ft. Fraser Trail	Peace River Greenway	NC	8.68
25	Peace River Greenway*	Circle-B-Bar Reserve	SR 540 Winter Lake Rd	NC	1.30
26	Williams Trail Alternative 1*	SR 570 (Polk Parkway)	TECI-Auburndale Trail via Pace Road	NC	1.35
27	Auburndale Trail Bridge*	West of CR 655	East of CR 655	NC	0.09
28	Van Fleet Extension*	Post Road	SR 33 (southern terminus of Van Fleet Nat. Rec. T*)	NC	0.92
29	Peace River Greenway*	US 92	CR 546 Saddle Creek Rd	NC	2.05
30	Williams Trail Alt. 1 Connector West	Tenoroc Trail	Williams Trail Alternative 1	C/M	1.09
31	Williams Trail Alternative 1 Connector East	Williams Trail Alternative 1	Williams DRI Town Center-USF	C	0.58
32	Lakeland-to-Plant City Connector Alt. 1	SR 572 Airport Rd	CR 542 Old Tampa Hwy	C	2.30
33	Tenoroc Trail*	Tenoroc Mine Rd	Auburndale Trail at Braddock Road	NC	3.66
34	Williams Trail Alternative 2 Connector	Tenoroc FMA	Williams DRI and Alt. B	C/M	2.45
35	Williams Trail Alternative 2	Alt B Connector	SR 570 (Polk Parkway)	C/M	1.25
36	Tenoroc Trail	SR 659 Combee Rd south of SR33	Tenoroc Mine Rd	C/M	2.49
37	Lakeland-to-Plant City Connector Alt. 2	SR 572 Airport Rd	SR 572 Airport Rd @ SR 570 Polk Pk	C/M	0.40
38	Peace River Greenway*	CR 546 Saddle Creek Rd	Tenoroc State Reserve	NC	2.34
39	Ft Fraser Trail to Bartow Eagle Lake Trail*	Cypress Trail	Bartow Eagle Lake Trail	NC	2.09
40	Lakeland-to-Plant City Connector Alt. 2	Hillsborough County Line	SR 572 Airport Rd	C/M	2.83
41	Lakeland-to-Plant City Connector Alt. 1	Hillsborough County Line	CR 542 Old Tampa Hwy	C/M	1.36
42	Lake to Lake Bike-Orange St	Iowa Ave	New York Ave	C	0.37

ID	Pathway Corridor Name	From	To	Jurisdiction	Length
43	Lake to Lake Bike-Lemon St	Missouri Ave	Lake Beulah Dr	C/M	0.57
44	Lake to Lake Bike-Lake Beulah Dr	Lake Beulah Dr Loop	Lake Beulah Dr Loop	C/M	0.68
45	Lake to Lake Bike-Belvedere St	Lake Hollingsworth Dr	Camphor Dr	C/M	0.64
46	Lake to Lake Bike-Woodland Hills Ave	Cleveland Hts Blvd	Carolina Ave	C	0.97
47	Lake to Lake Bike-Orange St	Ingraham Ave	Iowa Ave	C/M	0.50
48	Lake to Lake Bike-Bella Vista St	Lake Parker	W 10th St	C/M	1.55
49	Lake to Lake Bike-Main St	Bartow Rd	Lake Mirror Promenade	C/M	0.20
50	Lake to Lake Bike-Hartsell Ave	Lake Beulah Dr	Sikes Blvd	C/M	0.21
51	Lake to Lake Bike-Sikes Blvd	Lake Hunter Dr	The Ledge Driveway	C/M	0.89
52	Lake to Lake Bike-New Jersey Rd	SR 570 Polk Pkwy	Willow Ave	C/M	0.93
53	Lake to Lake Bike-Collins Ln	Lake Hollingsworth Dr	Easton Dr	C/M	0.49
54	Lake to Lake Bike-Collins Ave	Easton Dr	Glendale St	C	0.54
55	Lake to Lake Bike-Lake Bonny Dr	Main St	George St	C	0.26
56	Lake to Lake Bike-Lake Bonny Dr	George St	Lime St	C	0.07
57	Lake to Lake Bike-Lake Bonny Trail	Lake Bonny Dr W	Lake Hollingsworth Dr	C/M	1.18
58	Lake to Lake Bike-Lake Parker Dr	Bella Vista St	Parker St	C/M	1.43
59	Lake to Lake Bike-Parker St	Lakeshore Dr	Gary Rd	C/M	0.69
60	Lake to Lake Bike-Interlachen Py	Main St	Holly Rd	C/M	0.32
61	Lake to Lake Bike-Shore Acres Dr	Holly Rd	Gary Rd	C/M	0.40
62	Lake to Lake Bike-Rose St	Lake Av	Lake Mirror Dr	C	0.06
63	Lake to Lake Bike-MLK JR Ave	Memorial Blvd	Peachtree St	C/M	0.45
64	Lake to Lake Ped-Woodland Hills Ave	Carolina Ave		C	0.72
65	Lake to Lake Ped-Easton Dr	Buckingham Ave	Kerneywood St	C	0.55

ID	Pathway Corridor Name	From	To	Jurisdiction	Length
66	Lake to Lake Ped-Carolina Ave	Kerneywood St	Carolina Ave	C	0.04
67	Lake to Lake Ped-Hollingsworth Rd	Bartow Rd	Palmetto St	C	0.10
68	Lake to Lake Ped-Rose St	Lake Av	Lake Mirror Dr	C/M	0.08
69	Lake to Lake Ped-Buckingham Ave	Lake Hollingsworth Dr	Edgewood Drive	C/M	0.39
70	Lake to Lake Ped-Buckingham Ave	Cleveland Heights Blvd	Edgewood Drive	C/M	0.62
71	Southwest Corridor	SR 570 (Polk Parkway)	County Line Rd	C/M	6.78
72	East Lake Parker Trail	Lake Mirror Promenade	Tenoroc Trail	C/M	5.47
73	Westgate - Central Trail	Lake Beulah	Ariana Street at Harden Boulevard	C	1.29
74	Paul A. Diggs - Webster Park Loop	Tenth St. at Martin Luther King, Jr. Ave.	Martin Luther King, Jr. Ave. at Tucker Street	C	2.44
75	Lincoln-Imperial Canal Trail	Lincoln Avenue at Edgewood Drive	Imperial Boulevard at Florida Avenue	C	0.51

*regional funding required

Jurisdiction
C – City****
NC – Not City
M – Multiple

**** City Jurisdiction could result in direct CIP funding for construction/maintenance, city management using State/Federal funds or privately-funded/maintained as a condition of development approval.

Illustration III-13B: Parks Connectivity Projects

Illustration III-14: Polk County Trail System

MASS TRANSIT

The summary of findings for the mass transit portion of this element deals with the public transportation system in the Lakeland Planning Area, specifically, the Lakeland Area Mass Transit District (LAMTD). The information used in this summary represents a compilation of research and data from resources such as the Transit Development Plan prepared by the Transportation Planning Organization (TPO), the LAMTD route schedules, various articles, and information gathered from the Transit Director.

LAKELAND TRANSIT SERVICE AREA BACKGROUND

The City of Lakeland is a part of the Lakeland urbanized area which is one of two urbanized areas within Polk County, Florida. The role of Lakeland as a growing commercial, industrial distribution and corporate office area, is increasingly emphasized by its position as the most populous city between Orlando and Tampa as well as within Polk County. Lakeland is becoming more involved with regional economic and travel patterns. The Lakeland Urban Area's diversity of age groups and income levels continues to ensure significant annual ridership figures reflecting the increasing demand for transit services. As the population and roadway congestion levels increase, transit services will continue to be a viable alternative for meeting future transportation needs. Creative use of transit services and development designs which are transit friendly will further assist in meeting future demand for transit in the Lakeland area.

The LAMTD was created by County ordinance approved in 1980, with service beginning in 1982. A special taxing district with authority to levy about a half mil, or 50¢ per \$1,000 of assessed valuation, was also established. That assessment primarily funds transit services and administration within the district. The LAMTD taxing district has historically fallen just outside the City of Lakeland boundaries. The City of Lakeland, which has continued to annex new territories, may include areas which are not in the transit district. Likewise, the portion of Lakeland urban area residents which reside outside the corporate limits of the City may be within the transit district service area. In fact, as LAMTD expands to the south, west and east, and as it adds links to countywide services, its services will become more regional in nature. Joint City-County efforts will be increasingly important in regard to addressing transit related issues under this scenario. Regional service is discussed under the Issues and Opportunities section of this element.

EXISTING CONDITIONS

Illustration III-15, Lakeland Area Mass Transit District and Connector Service, depicts the existing LAMTD service area for greater Lakeland. In year 2000, LAMTD district boundaries extended well beyond the Lakeland city limits in some areas. The District's staff office and bus garage is located at 1212 George Jenkins Boulevard, west of downtown. The bus terminal is located on North Florida Avenue, about a block north of Main Street and within walking distance of downtown's Munn Park Historic District and other retail areas. By October 2000, LAMTD included Monday through Saturday

services on 15 existing fixed routes plus Handy Bus or demand responsive services and a downtown (Lakeland Central Business District) circulator route. The fixed routes include an express service to Bartow and a connector to Winter Haven's transit service area via Auburndale. This connector route allows, in theory, for riders originating from rural areas of eastern and south Polk County and using the April 2000-initiated County intercity bus system, to travel through Winter Haven and then to an ultimate destination in Lakeland or Bartow, the County seat. The Winter Haven Area Transit Service (WHAT) was initiated in March of 1999 for fixed route services in that area.

LAMTD's bus service, known as the "Citrus Connection," has historically provided fixed route service 6:15 a.m. to 7:15 p.m. on weekdays on 15 fixed routes (see Illustration III-16, Lakeland Area Bus Routes). A "Night Ride" service was initiated by LAMTD in mid-2000 in conjunction with the Polk County Workforce Board to provide service home from work or night classes and childcare facilities to those persons making the transition from welfare to work. LAMTD was expected to provide over 1.2 million one-way passenger trips in fiscal year 1999/2000, and 1.6 million are expected by 2003. Note that from 1990 to 1999, ridership grew by over 170 percent, but much of that occurred in the first half of the decade, with a relatively smaller increase of 30 percent occurring between 1995 and 1999.

**TABLE III-16
LAMTD RIDERSHIP TRENDS**

Fiscal Year	Passenger Ridership (Thousands)		
	Citrus Connection	Handy Bus	LAMTD Total
1985	259	N/A	259
1986	325	N/A	325
1987	363	7	370
1988	407	14	421
1989	452	22	474
1990	513	41	554
1991	704	45	749
1992	783	58	840
1993	861	75	935
1994	982	61	1,043
1995	1,076	62	1,138
1996	1,135	61	1,223
1997	1,242	83	1,325
1998	1,386	97	1,483
1999	1,393	106	1,499

Source: Polk County TPO, Transit Development Plan, Oct 2000.

Service is provided at a minimum frequency or "headway" of every hour for each stop on each route for 10 of the 15 City routes and every 30 minutes for five other routes. (See Illustration III-17, Lakeland 30 Minute Service Areas.) These are minimums, with some of the routes providing service at less than 60 minutes but more than 30 minutes, while other routes or portions of a route may have 30 minute service, such as the Parker Street area.

ILLUSTRATION III-15
LAMTD District Boundaries and Connectors

ILLUSTRATION III-16
Lakeland Area Bus Routes

ILLUSTRATION III-17
Lakeland Area Bus Routes
30 Minute Service Areas

In 2000, the downtown circulator route provided service every 15 minutes between 11 a.m. and 1:55 p.m. at no charge. This downtown trolley-style service was initiated in February 1999 and was expected to provide 22,000 passenger trips in FY 1999/2000. The trolley service was intended to provide citizens (employees and patrons) with an alternative mode of transportation to get to shops, restaurants, parks, and other downtown destinations. The trolley has been and can be further utilized for special events in the downtown, such as Mayfaire or conventions at the Lakeland Center. Another option is weekend or expanded-hour service intended to ease traffic congestion and link to the streetscaped downtown pedestrian sidewalk network.

LAMTD also operates 14 mini-buses for its Handy Bus paratransit service, offering door-to-door pickup and drop off, for what is referred to as the “transportation disadvantaged”, including elderly and/or disabled patrons, usually with limited incomes. Handy Bus service costs were \$1 each way in 2000, with service provided on weekdays and Saturdays. The boundaries for this service are the same as for the regular bus service.

As a congestion management strategy, LAMTD purchased and utilizes six vans for a vanpool program designed to serve groups of passengers with similar or same trip origins and destinations. The vans are leased to groups and operated by social service agencies, and can travel outside the transit district.

Existing Capacity

As discussed below, historically, traditional level of service measurements for transit service provision have focused upon ridership levels. As per Rule 9J-5, FAC, governing the minimum content for local government comprehensive plans, a peak hour figure for level of service is required. Based upon the bus capacity and number of buses assigned to each route, a capacity figure per route can be determined. As of year 2000, the five 30 minute headway routes have a peak capacity of 88 while the remaining 10 fixed service routes have a peak capacity of 44. No capacity problems are anticipated. In the Issues and Opportunities section of this Element is a discussion of the multi-modal level of service standards proposed for the Lakeland Area in the 2000-2010 planning period. Tables and illustrations within the discussion directly address future transit level of service standards recommended for the LAMTD, WHAT (Winter Haven) and Polk County transit service areas.

Performance Standards

Overall, transit services are being provided both efficiently and effectively according to the various performance standards found in the 2001-2006 Transit Development Plan adopted by the TPO in June of 2000 and shown on Table III-17, LAMTD Performance Standards, FY 1999/00. While the LAMTD exceeded, met or came very close to most of the standards in FY 1999/00, the operating ratio was one standard not met; it was 18.7% compared to the standard of 20% although this still represented a slight improvement over the FY 1998/99 rate of 18.5%.

**TABLE III-17
PERFORMANCE STANDARDS**

Performance Standard	Objective/Policy	FY 1999/00 Performance
Marketing	Policy 2.1A – The LAMTD shall allocate at least 2% of the total operating budget for marketing efforts.	1.75%
Service To Densely Populated Areas	Objective 2.3 – Provide a level of fixed-route service to densely populated areas as follows: Population density per sq. mile \geq 4,000 90% of population less than ¼ mile from route Population density per sq. mile \geq 2,000 and < 4,000 95% of population less than ¼ mile from route	90% 94%
Operating Ratio	Objective 3.1 – Achieve an operating ratio (Farebox Revenue/Total Operating Expenses) of at least 20%.	18.5%
Maintenance Cost	Objective 3.2 – Hold maintenance cost to less than 22% of total operating cost.	22.5%
Administrative Cost	Objective 3.3 – Hold administrative cost to less than 21% of total operating cost.	16.7%
Deadhead Miles	Objective 4.3 – Allow no more than 10% of miles of service as deadhead miles.	3.1%
Accident Rate	Objective 4.4 – Less than 8.4 accidents per 100,000 miles of revenue service.	0.4/100,000
Spare Ratio	Policy 4.6B – The LAMTD shall maintain a spare ratio of 30% for its fixed rate service (vehicles required for maximum revenue service compared to vehicles available for service).	33%

Source: Polk County TPO, Lakeland Area Mass Transit District Transit Development Plan Years 2001-2006; June 2000.

Demographic-Based Transit Potential

Trip generators/attractors are shown in Illustration III-16, Lakeland Area Bus Routes, and in Illustration III-18, Citrus Connection Major Trip Generators, which indicates the average number of passengers per run. Lakeland Square Mall generated, on average, the greatest number of passengers per run for the Citrus Connection in 1995. Primarily trip attractors are commercial centers as well as educational and medical facilities. As the urban area grows through infill and new development, new trip destinations will be added.

The LAMTD Transit Development Plan (TDP), adopted in June of 1996, analyzed socio-economic data to determine relative transit potential in the LAMTD and surrounding areas. Block Group data from the 1990 Census were used to examine the following factors, each of which was weighted and converted to a numeric composite value:

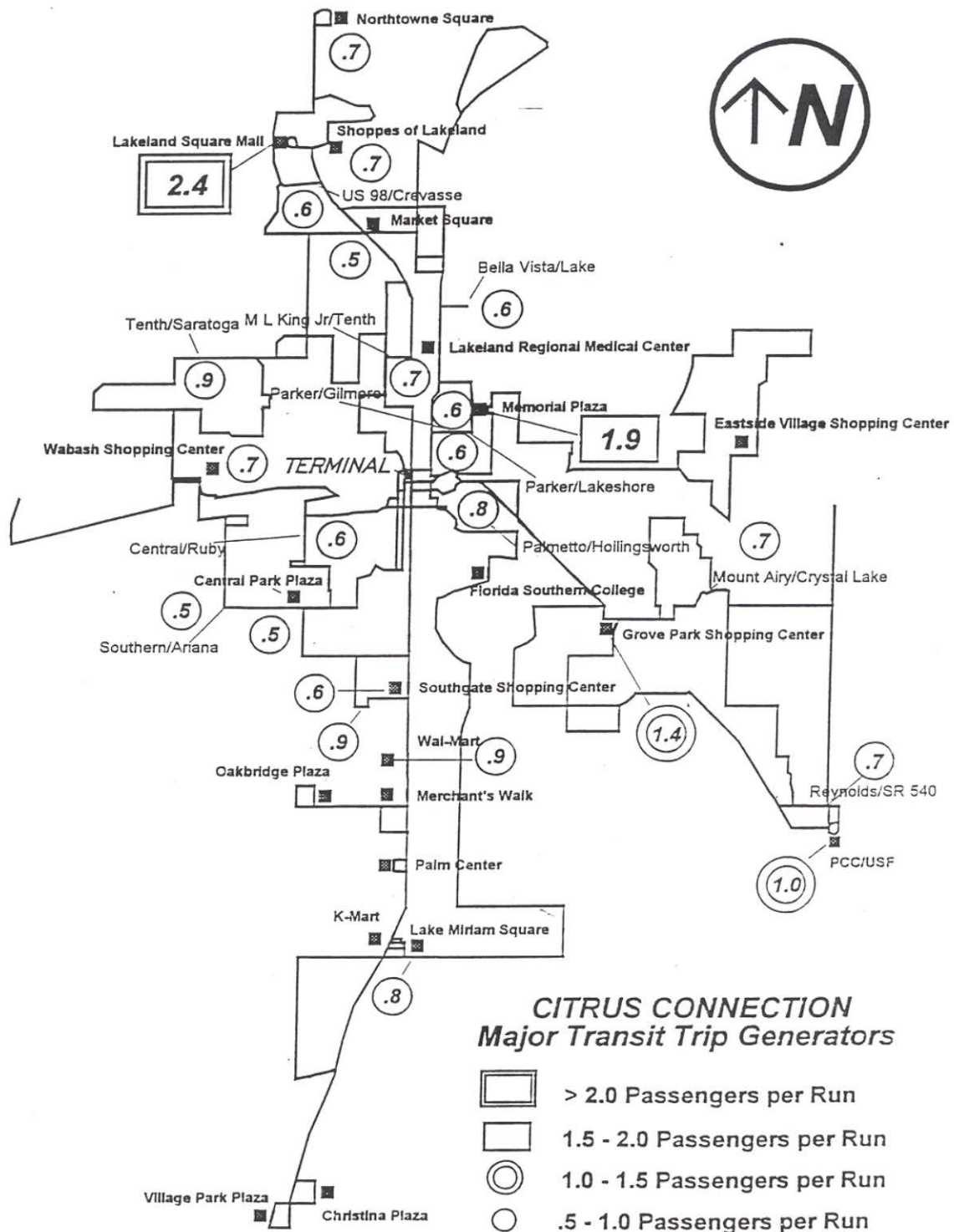
- | | |
|------------------------------|--------------|
| 1. Youth (<16) population | (15% weight) |
| 2. Elderly (>65) population | (15% weight) |
| 3. Female population | (5% weight) |
| 4. Population density | (15% weight) |
| 5. Dwelling unit density | (10% weight) |
| 6. Very low income status | (15% weight) |
| 7. Per capita income | (10% weight) |
| 8. Ethnic origin (non-white) | (15% weight) |

A high transit potential for a Block Group was indicated for that factor if it ranked in the upper third (above 67th percentile) of all Block Groups, a medium potential if it ranked in the middle third (between 33rd and 67th percentile), and a low potential if it ranked in the lower third (below 33rd percentile). (Summary data and a detailed explanation of the factors used for this analysis are reported in the 1995 LAMTD TDP Update.) The Polk County TPO updates this data periodically and Illustration III-19, Lakeland Area Transit Potential, identifies the results of the year 2000 version of the analysis.

Based on a 1993 estimate, the LAMTD served a population of approximately 110,000 persons. Although other demographic characteristics have not been estimated for the entire LAMTD, 1990 Census data for the City of Lakeland provide the best available indication of socio-economic characteristics relevant to transit need. (The analysis in the Transit Development Plan, discussed above, was based on relative values only.)

- ❑ **Poverty and income status:** Of the 67,951 persons in Lakeland whose poverty status was determined, 9,483 (13.9%) were below poverty level. Of 29,791 households, 15,231 (51%) had an annual household income of less than \$25,000.
- ❑ **Vehicle ownership:** Of a total of 29,656 occupied housing units in Lakeland, 3,770 (13%) of such households did not own at least one vehicle.
- ❑ **Youth and elderly population:** Of a total of 70,576 persons in Lakeland in 1990, 13,310 (18.8%) were age 16 and under and 16,011 (22.6%) were age 65 and over.
- ❑ **Special needs:** Of 56,034 persons age 16 and over, 3,202 (5.7%) had a mobility limitation.
- ❑ **Non-white population:** Of the 70,576 persons in Lakeland, 15,449 (21.8%) were non-white.

ILLUSTRATION III-18 **CITRUS CONNECTION MAJOR TRANSIT TRIP GENERATORS**



Source: Lakeland/Winter Haven MPO, 1995.

ILLUSTRATION III-19
Lakeland Area Transit Potential

Future Trip Generators & Expansion of District

Four Lakeland area Developments of Regional Impact (DRI) are expected to have an impact on the LAMTD's future transit trip generation. Specifically, two DRIs in southwest Lakeland, will generate more revenue (tax base) and potentially more trips: the previously approved mall expected within the Oakbridge DRI, to be located at the northwest intersection of Harden Boulevard and the Drane Field Frontage Road (near the Polk Parkway) and the new Publix DRI corporate headquarters located at the southeast quadrant of the Polk Parkway and Airport Road, just north of Drane Field Road.

Over the next 15 years, the proposed residential, commercial and office/business park type development within the Williams and Bridgewater DRIs, will add to LAMTD's future service demands and its revenue/tax base.

In late 2000, the LAMTD Board discussed possible expansion of the District's boundaries to the east. This would incorporate an area that would include:

- the Williams DRI and the "K-Ville" unincorporated residential area,
- an area to the south of Mulberry which would service the unincorporated communities of Pinedale, Pierce and Bradley, and
- the area of Winston Elementary School and the intersection of Griffin and Kathleen Roads.

These proposed future transit district boundaries are generally shown in Illustration III-20 and subject to voter approvals. District expansion efforts are expected in these areas sometime in the early part of the planning period (2001/2002).

Future (10-20 years) road projects that may impact transit service include:

- In-Town Bypass (funded), due to the Bypass serving partially as a truck route and thereby relieving some of the truck traffic on traditional City streets such as Edgewood Drive.
- North-South Route extension – the project connects S.R. 37 to Harden Blvd. at Polk Parkway; this project is funded. By extending Harden Blvd., a north-south roadway, the project enhances future north-south travel patterns.
- Wabash Avenue extension, not funded unless by local impact fee and gas tax revenues. This project would provide a major reliever for the heavy north-south traffic demand and serve some of the lower income areas in which transit service is most used. Essentially the project would extend Wabash from 10th Street north to Kathleen Road, and if financially possible, to Mall Hill Drive near the Lakeland Square Mall. The southern portion of the project would extend Wabash to the southeast from New Tampa Highway to Harden Blvd. near the Drane Field Frontage Road. This would allow a route to the existing mall in North Lakeland all the way south to the planned Oakbridge Mall, grocery and other shopping centers nearby.
- The City's Amtrak rail station is several blocks east of the bus terminal; Lakeland proposes to build a sidewalk along the railroad tracks to improve the linkage of the two facilities and enhance intermodal connections.

ILLUSTRATION III-20
LAMTD Potential District Boundaries

Fares and Fiscal Resources

LAMTD has had a base fare of 75 cents since 1988. This was the fare for adults in year 2000, with a 50 cent fare for students, 35 cents for senior or handicapped citizens, and no charge for children under 6 who ride with an adult. In addition, LAMTD offers rider passes at discounted rates. According to the Polk County TPO, LAMTD, like most transit systems, has four key categories of revenues: federal, state, local and system generated (primarily farebox).

System generated funds include revenues from passenger fares and advertising; local funds include revenue sources such as general appropriations and property taxes from the district assessments. Federal and state revenue sources include a variety of programs but generally, as transit systems grow, there is an increased reliance on local and system generated revenues. This is primarily due to the finite amount of available federal and state funding and restrictions on the use of federal funds for use in paying operating costs (i.e. vs. capital and equipment costs.) Also, once the urbanized area, as defined by the U.S. Census and served by the transit district, exceeds a population count of 200,000, then significant federal funds for operating costs are eliminated. This is due to the theory that once a transit system is servicing such a large population, the local population (or local governments serving that population) should support the majority of the costs to operate the system. This allows the federal government to focus on funding or subsidizing operating costs of smaller and sometimes relatively young or new transit systems.

According to the TPO, in fiscal year 1999, LAMTD had over \$4.6 million in revenues that were derived as follows:

- 31% Federal Funds
- 14% State Funds
- 18% System Generated
- 37% Local (District) Funds.

Federal and state funding comprised 45% of the total revenues for LAMTD and system generated funds were the smallest revenue source at 18%. This may be compared to more mature transit systems with a larger population base such as Tallahassee's or Orlando's transit systems, where in FY 1997 system generated funding comprised 31% and 35% of revenues and local funding sources comprise 50 and 48 percent of the revenues. On the other end of the spectrum, the WHAT system for Winter Haven derived 71% of its revenues from federal and state resources and only 6% was system generated in the start-up period of March 1999 through February of 2000.

Table III-18 shows forecasted revenues and expenses with a balance (deficits shown in parentheses) for the LAMTD system for fiscal years 2000/01 through 2005/06. The LAMTD system is expected to face an annual operating deficit where available revenues are less than operating and capital expenses. LAMTD's substantial cash reserves will probably hold off the deficit until at least FY 2003/04. At that point, when state and federal funding for service development projects like the connector services

end, and if costs have not been reduced and/or revenues not increased, there could be a deficit of over \$950,000. However, the potential district boundary expansions may add to the revenue base, if approved by voters in those areas. On the other hand, if the population for the urban area exceeds 200,000 as per the 2000 U.S. Census data and/or if the \$1.25 million in federal grant funding for operational costs enjoyed in the past several years does not continue to be awarded each year, then the operational revenues for the system could be dramatically reduced. Even under the best of scenarios, revenues sources like farebox revenue and federal and state revenues are likely to remain relatively flat/unchanged in proportion to costs. Also, grant revenues are unpredictable resources, i.e. not annually dedicated on a long term basis. Passenger fares are also near the 20% operating ratio objective as shown in the above performance standard data. This scenario suggests targeting efforts to increase local funding sources for the transit service area.

**TABLE III-18
LAMTD REVENUE & OPERATING EXPENSE FORECAST
FOR YEARS 2000/01-2005/06**

REVENUE	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
PASSENGER FARES	\$629,588	\$648,476	\$667,930	\$687,968	\$708,607	\$729,865
ADVERTISING REVENUE	\$60,000	\$80,000	\$100,000	\$100,000	\$100,000	\$100,000
INVESTMENT INCOME (A.)	\$187,163	\$172,830	\$145,607	\$103,680	\$40,656	\$0
INVESTMENT INCOME (B.)	\$105,000	\$110,250	\$115,763	\$121,551	\$127,628	\$134,010
STATE GRANTS	\$647,262	\$695,589	\$762,309	\$786,056	\$786,056	\$786,056
FEDERAL GRANTS	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000
MISC. INCOME	\$500	\$500	\$500	\$500	\$500	\$500
SUBTOTAL	\$2,879,513	\$2,957,645	\$3,042,108	\$3,049,754	\$3,013,447	\$3,000,431
PROP. TAXES @ .488 MIL	\$1,596,354	\$1,644,245	\$1,693,572	\$1,744,379	\$1,796,710	\$1,850,612
TOTAL	\$4,475,867	\$4,601,889	\$4,735,680	\$4,794,134	\$4,810,157	\$4,851,042
EXPENSE	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
LABOR	\$2,369,591	\$2,582,854	\$2,815,311	\$3,068,690	\$3,344,871	\$3,645,909
FRINGE	\$885,119	\$952,997	\$1,026,798	\$1,107,042	\$1,194,381	\$1,289,399
ADVERTISING FEES	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
PROFESSIONAL FEES	\$66,000	\$72,600	\$79,860	\$87,846	\$96,631	\$106,294
CONTRACT MAINT SERV	\$16,500	\$18,150	\$19,965	\$21,962	\$24,158	\$26,573
OTHER SERVICES	\$75,900	\$83,490	\$91,839	\$101,023	\$111,125	\$122,238
FUEL & LUBRICANTS	\$297,832	\$327,615	\$360,377	\$396,414	\$436,056	\$479,661
TIRE REPAIR	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
OTHER MAT. & SUPPLIES	\$275,391	\$302,930	\$333,223	\$366,545	\$403,200	\$443,520
UTILITIES	\$38,486	\$39,641	\$40,830	\$42,055	\$43,316	\$44,616
INSURANCE	\$190,873	\$208,761	\$228,436	\$250,080	\$273,888	\$300,077
LICENSING & REGISTRA.	\$200	\$200	\$200	\$200	\$200	\$200
DUES & SUBSCRIPTIONS	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
TRAVEL & MEETINGS	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500
ADV. & PROMOTIONS	\$88,000	\$96,800	\$106,480	\$117,128	\$128,841	\$141,725
MISC. EXPENSE	\$32,670	\$35,937	\$39,531	\$43,484	\$47,832	\$52,615
RENTALS	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TAX COLLECTOR COMM, APPRAISER'S FEES, LDDA TAX	\$113,381	\$115,649	\$117,961	\$120,320	\$122,727	\$125,182
TOTAL	\$4,471,443	\$4,859,124	\$5,282,310	\$5,744,289	\$6,248,726	\$6,799,509
REVENUE – EXPENSE	\$4,424	(\$257,235)	(\$546,630)	(\$950,155)	(\$1,438,568)	(\$1,948,467)

SOURCE: Source: Polk Transportation Planning Organization, Lakeland Area Mass Transit District
Transit Development Plan Years 2001-2006; June 2000.

PORT FACILITIES

As the City of Lakeland is located in Polk County, an inland county, there are no ports or related facilities.

AVIATION FACILITIES

HISTORY

The information on local aviation facilities is based on the 1995 Lakeland Linder Regional Airport Master Plan Update. The emphasis of the policies contained in the Master Plan is directed toward sound management of the airport land uses, facilities, and the surrounding lands and environments.

The City's original airport site was located on the westerly bank of Lake Parker and was referred to as "Lodwick Field". This original site is now developed in housing and City of Lakeland recreational areas. The City purchased 640 acres of land and began construction of the present airport just prior to World War II. The facility was named "Drane Field" and the site is situated on a tract approximately four miles southwest of Lakeland's central business district. National Airlines used the airport to serve Lakeland in the early years. In 1942 the City turned the airport over to the Federal government which completed construction of the runways and used the facilities to train 4000 cadets. Additional lands were acquired by the Federal government and, following World War II, the airport was deeded back to the City. The present airport, referred to as "Lakeland Linder Regional Airport" serves as a full service general aviation airport.

EXISTING FACILITIES

The City owns over 1600 acres of land at and surrounding the Lakeland Linder Regional Airport facility in order to ensure future land use compatibility and to meet future facility needs. Lakeland Linder Regional Airport is classified as a general aviation airport and is designated as a reliever airport for Tampa International Airport in the National Plan of Integrated Airport Systems (NPIAS), and the Florida Airport System Plan (FASP). The airport has served private airplane owners, corporate plane service, and aviation flight school operations, in addition to the annual Experimental Aircraft Association event known as the "Sun 'n Fun EAA Fly-In." The continued development of Lakeland Linder Regional Airport is compatible with the existing Polk County Comprehensive Plan and the FASP, both of which are currently being updated. There are no known major environmental constraints that would prevent continued development of the airport.

An update of the information regarding the Lakeland Linder Regional Airport facility was made in 1995; the Master Plan Update addresses the period of 1993 through the year 2012 and uses base data from 1992. Per the 1995 Master Plan update, the following is an inventory of on-ground facilities.

The airport terminal on the north side of the Lakeland Linder Regional Airport (LAL) is located south of the airport entrance road, and is one of the most active buildings at the airport. This single-story building, built in 1960, contains approximately 9,234 square feet of space. Airport management offices, a restaurant, fixed base operator (FBO) offices and service desk, car rental services, a flight planning room, and a weather information area are uses in the existing terminal. The terminal layout is depicted in Illustration III-21. City and State funding have been allocated for a new, larger terminal building for the Lakeland Linder Regional Airport due to be completed by 2001. The new terminal will be about 27,000 square feet, or three times as large as the previous terminal.

The air traffic control tower (ATCT) is located adjacent to the airport terminal. Built in 1980, this structure contains the ATCT cab which is typically manned by 2 to 3 controllers, and the ATCT Chief's office. The airport layout is depicted in Illustration III-22. A new ATCT is planned within the planning period but will be delayed two to three years due to higher than expected costs for the terminal. The new tower will cost about \$1.7 million and should include a radar system for air traffic controllers to utilize (versus using only visual) methods. The new terminal will be located about 250 yards to the north, closer to Drane Field Road.

The airport fuel farm is located on a 0.7 acre site between the airport entrance road and FBO apron. The fuel farm was constructed in 1989 and is maintained by the FBO. The facility includes three 15,000 gallon tanks, which store jet fuel and aviation gasoline.

Aircraft based at LAL are stored in enclosed hangars or parked in tie-down spaces. A full inventory of aircraft based at LAL is provided in Chapter 3.0 of the Master Plan (Table 3.3). The City of Lakeland leases 35 T-hangars, Hawthorne-Lakeland leases 20 T-hangars, and Lakeland Executive Hangers has 24 units. Piedmont-Hawthorne also leases apron space. The Army Air National Guard Unit at LAL moved to Brooksville in October 2000.

The airport maintenance building is located on the east side of the airport near Taxiway "C". The facility stores some airport maintenance supplies, grass-cutting equipment and fuel storage tanks for use of maintenance vehicles only.

ILLUSTRATION III-21
Terminal Area Plan

ILLUSTRATION III-22
Airport Layout Plan

The Lakeland Linder Regional Airport does not have an onsite Aircraft Rescue and Firefighting Facility (ARFF). Firefighting service is provided by the City of Lakeland from the Beacon Road and S. Florida Avenue station and is supported by Polk County Fire Services. Polk County operates a Hazardous Materials recovery unit. Five fire hydrants are located in the terminal area. Additional hydrants are located in the adjacent Airpark, Sun 'N Fun area, Lakeland Air Center and along Drane Field Road and Medulla Road. The fire equipment staging area is located near the intersection of Taxiways "B" and "C". The police and ambulance staging area is located in the automobile parking lot west of the terminal building. An on-site fire station, specialized for handling airplane disasters/fires, would be required for any future FAA approval of commercial airline service.

As will be discussed in the Issues section, the LAL will seek to continue to acquire properties surrounding the airport in order to manage development near the airport and to maintain land use compatibility, protect clear zones (see Illustration III-23) and to enhance the current Lakeland Airside Center Business and Aviation Complex which includes aviation related businesses. Funding for such acquisitions are typically included in the City's adopted 5 year Capital Improvements Plan.

INGRESS AND EGRESS POINTS

The Lakeland Linder Regional Airport is accessed by vehicular transportation using the network of streets in the area. Illustration III-24 depicts the airport access routes. The most direct existing access from the Lakeland Central Business District (CBD), is S.R. 37 and S.R. 572, also known as Drane Field Road. State Road 37 is a heavily traveled, four-lane north/south route with some five-lane access. Drane Field Road has provided two-lane access in an east/west direction; a portion of this road (east of Waring Road) has become a one-lane and one-direction frontage service road for the new Polk County Parkway.

The most direct existing access from Interstate 4 to the airport is via County Line Road to Drane Field Road, or via US 92 (Tampa Highway) and SR 572 (Airport Road). County Line Road is currently undergoing widening from two to four lanes, from I-4 south to Medulla Road. This four laning will be extended to the realigned Medulla Road in 2004. The Polk County Parkway, a limited access toll facility, provides access to the airport from I-4 near Clark Road and at interchanges located at SR 572 (Airport Road) and Waring Road near the Lakeland Linder Regional Airport Facility. The Polk County Parkway connects to I-4 again on the east, north of the city of Auburndale. In general, the new Polk County Parkway should significantly increase vehicular access to the Lakeland Linder Regional Airport. In addition, the City has pursued what is referred to as the "Medulla Road Realignment," which extends the existing Medulla Road due west to County Line Road beginning south of the airport in the "s" curve. The realignment is targeted for construction in 2001 and completion by early 2002, and provides additional enhanced access to the southside of the Lakeland Linder Regional Airport, Airside Center, and Sun 'N Fun facilities.

ILLUSTRATION III-23
Runway Protection Zone (RPZ) Plan

ILLUSTRATION III-24
Lakeland-Linder Regional
Airport Access Routes

EXISTING SERVICE DEMAND AND SYSTEM NEEDS

According to the LAL Master Plan 1995 Update (Table 3.3), there were 201 aircraft based at LAL, 63 percent of which were single engine planes. Another 23 percent were multi-engine planes and 4 percent were jets. About six helicopters are based at LAL.

In regard to total aircraft operations for the Lakeland Linder Regional Airport, there were 219,720 total operations in 1999; this figure does not include operations during hours that the tower was closed.

In general, existing facilities are adequate to meet existing needs with proper maintenance. Existing regulations at the City level (land development regulations) and County level (Joint Airport Zoning Board, JAZB or JAZBA, Board of Appeals) continue to ensure compatibility between adjacent proposed land uses and the LAL. Longer term facility needs requiring funding from the City of Lakeland are outlined in the City's adopted Capital Improvement Plan.

FORECAST OF AVIATION DEMAND

It is the policy of the City of Lakeland to encourage continued development of the airport. The Lakeland Linder Regional Airport Master Plan depicts the recommended improvements which will enable the airport to meet forecasted aviation demand and serve a variety of current and potential users. The plan also identifies areas of land acquisition needed to meet development standards and other requirements.

The forecasts developed in the 1981 and 1986 Master Plans, on which the 1990 Lakeland Comprehensive Plan Aviation Element was based, overestimated future activity levels at LAL. The forecasts were based on a number of assumptions which did not come to fruition, such as a strong national and local economy throughout the 1980's and the continuation of a commuter service. Actual activity levels (based on LAL tower records, not including operations after the tower closes) are shown in Table III-19.

Various forecasts of aviation activity at LAL have been developed in recent years. Sources include the 1981 Master Plan, the 1986 Master Plan, the 1990 FAA National Plan of Integrated Airport Systems (NPIAS), the 1992 Florida Aviation System Plan (FASP), and the 1993 FAA Terminal Area Forecast (TAF). These forecasts are also outlined in Table 3.5 of the 1995 Airport Master Plan, included in this element as Table III-19. The 1992 FASP forecast appears to be more in line with current activity levels.

**TABLE III-19
PREVIOUS OPERATIONS FORECASTS
LAKELAND LINDER REGIONAL AIRPORT**

YEAR	ACTUAL OPERATIONS	1981 MASTER PLAN	1986 MASTER PLAN	1990 NPIAS	1992 FASP	1993 FAA-TAF
1981	105,340					
1982	104,780					
1983	89,808					
1984	108,908					
1985	94,267	223,760	134,300			
1986	92,364					
1987	131,127					
1988	130,981					
1989	125,920					
1990	158,249	243,130	175,500	128,000	162,039	
1991	136,275					
1992	144,990					
1993	145,893*					
1994	165,669*					
1995	173,578	268,500	198,600	125,000	181,982	174,000
1996						178,000
2000		293,700	225,400	141,000	199,676	194,000
2005			250,000		217,733	215,000
2010					236,447	

Sources: Actual Operations, LAL Air Traffic Control Tower Records
1981 Master Plan Report, Lakeland Municipal Airport, Greiner, Inc.
1986 Airport Master Plan, Lakeland Municipal Airport, Delta Associates Inc.
1990-1999 National Plan of Integrated Airport Systems (NPIAS)
1992-2010 Florida Aviation System Plan
1992-2005 FAA Terminal Area Forecasts, July 1992
1993 – Compiled by Greiner, Inc.
1995 – *: Added from ATCT records.

As the attached graph, Illustration III-25 shows, the growth of traffic has been impressive in recent years. There are two flight schools, doing a considerable amount of flight training. The annual EAA Sun 'N Fun Fly-In alone has involved over 45,000 landings and take-offs over the week-long event.

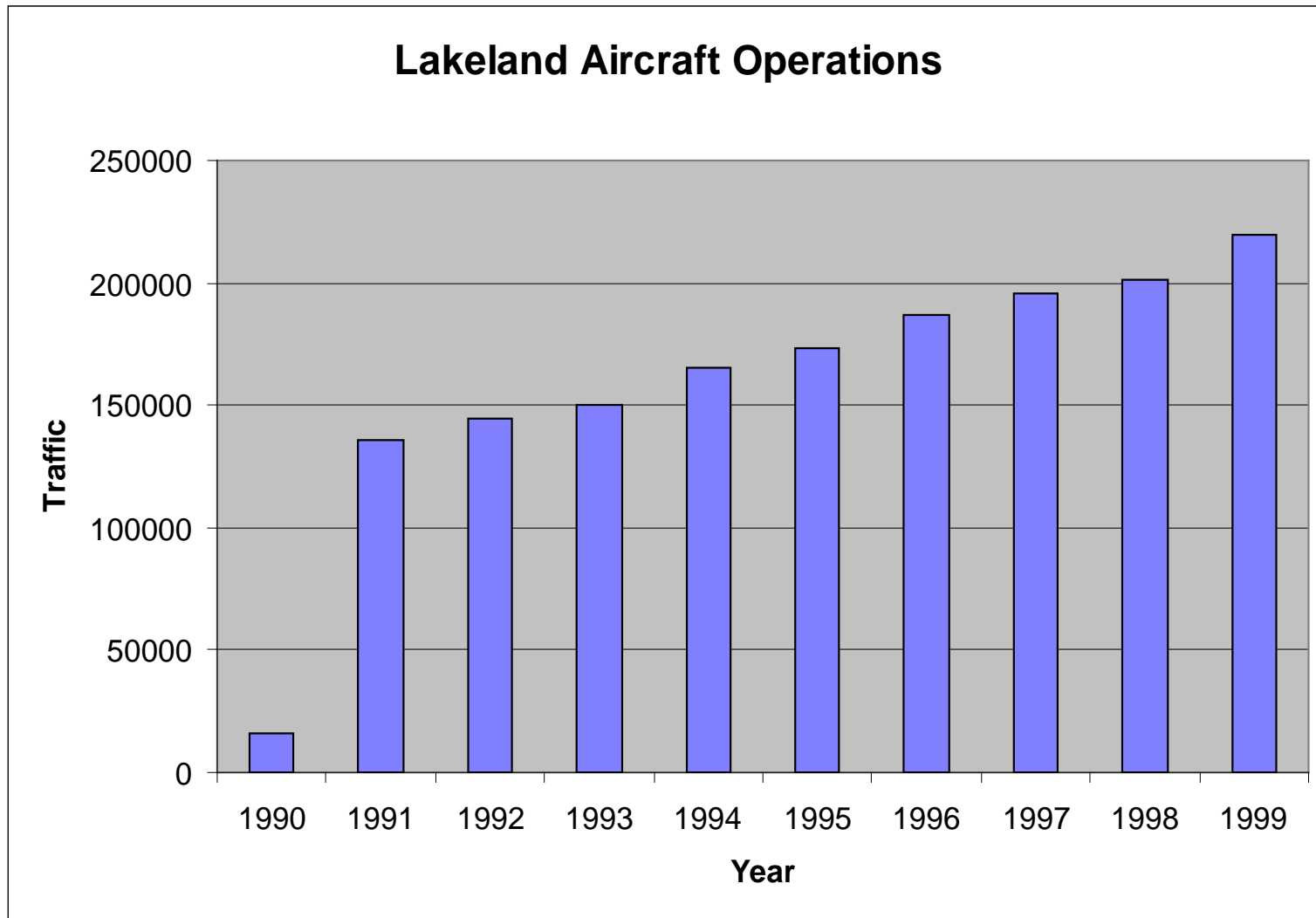
Identified future system needs include the new terminal building, new control tower, and two (new) landing strips, one paved and the other grass. Runway 9-27, an 8,500 foot existing runway, was rehabilitated in 2000 at a cost of \$4.9 million dollars. This improvement added 25' shoulders, lightning-resistant lighting, and pavement which could support commercial air service, should such service ever become feasible in Lakeland.

A grass landing strip and a paved runway (Runway 8/26) are also planned in the existing airport master plan. Both potential runways would be located south of existing runway 9-27. The paved runway would basically parallel existing runway 9-27. Per the 1995 Master Plan (Chapter 6, Table 6.1), other recommended future improvements at the Lakeland Linder Regional Airport will have mostly minimal impacts on environmental factors such as water quality/drainage. Impacts include increased impervious surfaces, and moderate social impacts from the potential relocation of some residences to facilitate future airport land acquisition to accommodate Runway 8-26.

Future noise contours in year 2012 indicate no future problems with the slightly enlarged noise contours due to airport improvements as shown in Illustration III-26. As a general policy guideline, however, the City and County should discourage future residential development within the Airport Noise Sensitive Zone (see Future Land Uses on Illustration III-27.) Although residential use within the 65 Ldn contour is not specifically prohibited, experience has shown that residential encroachment under airport approach paths leads to controversy which could be avoided with appropriate land use controls and if a thorough public education program is undertaken to explain the reason for a proposed use. The LAL Airport Airspace Plan shows an area of concern which has a radius of about 2.5 miles in any direction from the airport (see Illustration III-28). Land use compatibility for factors of airport noise, tall structures, and off-site impacts of proposed uses (smoke, light, etc.) should be generally considered in this radius. The City can specifically refer to JAZB regulations, which control these impacts, as part of its development review process.

The City of Lakeland has been vigilant in protecting the airport's airspace with the result that there are no identified airspace obstructions in the Lakeland Planning Area. In the larger Polk County area (outside the Lakeland Planning Area), the Department of Transportation has identified a few airspace obstructions.

ILLUSTRATION III-25



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ILLUSTRATION III-26
Future Noise Contours - 2012

ILLUSTRATION III-27
Future Land Uses Surrounding Lakeland Linder Regional Airport

ILLUSTRATION III-28
Proposed Clear Zone Plan and Profile

RAIL FACILITIES FOR FREIGHT AND PASSENGERS

The summary of findings for the rail portion of this element addresses both passenger and freight rail.

CURRENT RAILROAD OPERATIONS

CSX Transportation Inc. and its business unit, CSX Rail Transport, is responsible for the operation of train service over the rail network and the maintenance of rail right-of-way and engineering activity in Polk County and the Lakeland Urban Area. The company also manages assets related to train operations including yards, tracks and locomotives.

Winston Yard, annexed in 1997 and owned and operated by CSX, is the site where trains are put together and where switching operations occur for rail freight in the Lakeland area. It is located a little over a mile northeast of the Lakeland Regional Airport and comprises an area of over five hundred acres, about 360 acres of which is used for the railyard area and tracks. The service area for the Winston Yard includes the Lakeland city limits and the yard itself. The total number of Lakeland business (customers) served by CSX Rail Transport in 2000 was thirty-one. Engineers, trainmen and maintenance personnel work in the diesel shop, the yard and in the field.

As of 2000, a total of thirty-one scheduled, or manifest, freight trains passed through Lakeland's Winston Yard on a daily basis. In addition to the scheduled freights, a variable number of unclassified trains run on a daily basis. These include local freights, road switchers and yard engine assignments. The through freights that run through Winston Yard on a daily basis include four to the Orlando area, eight to Baldwin, three to Tampa, and five to the Mulberry area for a total of about twelve daily through trains.

Phosphate fertilizer has historically constituted the primary cargo of the freights. Paper, pulp board, grain feed, perishables, coal and intermodal/piggyback cargo are also transported on a regular basis. There are no piggyback or intermodal transfer facilities in Polk County; the nearest facility is Tampa. These are stations where truck trailers on rail cars could be loaded off to waiting truck rigs.

In 2000, CSX Transportation employed approximately 175 persons in the Lakeland area; however, many of these employees could be classified as temporary or transient. The Polk County area has been described as being "extremely important" to CSX operations due to the fact that the Polk County rail complex constitutes a major part of the core system and represents a significant company investment.

In addition the CSX freight services, Amtrak offers passenger service in the Lakeland area. Amtrak uses the CSX rail lines, however, and all of its facilities are maintained by CSX Rail Transport. In year 2000, Amtrak was providing Lakeland with train service to Miami via the Silver Star route (Jacksonville to Miami) which passes through downtown Lakeland to Miami in the morning and returns late in the evening. The passenger terminal is located on Lake Mirror. Passengers stopping at Lakeland's train depot can take buses to other train stops,

such as Winter Haven, to get to other Amtrak routes. In the late spring of 2000, Amtrak officials announced that expanded service of trains running through Lakeland to other destinations will be considered. Amtrak is considering adding additional stops in Lakeland on two routes: the route between Jacksonville and Tampa, and the route between Tampa and Orlando. With the expanded Amtrak plan, increased direct access to train routes would be significantly enhanced for Lakeland train station passengers.

HIGH SPEED RAIL

Central Florida has been waiting for the arrival of a dynamic, high-tech transportation system in the form of high speed train travel since it was first discussed in 1982. The objective was a system which would safely and swiftly link the major population centers of Hillsborough/Pinellas, Orange and Dade counties, with Polk County having a stop at least in Lakeland.

High Speed has been identified as those systems employing trains capable of running at speeds in excess of 120 mph. Speed is not the only factor qualifying the system as "High Speed Rail." The key issue is to provide a competitive trip, both in comfort, convenience and time for comparable journeys between origination and destination points as compared with other travel modes including automobile and airline.

In April 1982, Executive Order 82-34 was issued by Governor Bob Graham creating the Florida High Speed Rail Committee, followed in the 1984 session of the Florida Legislature by a law creating the Florida High Speed Rail Transportation Commission. The High Speed Rail Transportation Commission Act was signed into law by Governor Bob Graham June 14, 1984. This Act is considered a landmark law not duplicated elsewhere in the United States. The act empowered the Governor to appoint a commission to award a franchise for the development, construction, maintenance and operation of a high speed rail system. The FDOT began work with consultants for a master plan for Interchange 4 to an ultimate of ten lanes, four lanes each direction plus high occupancy vehicle lanes and a corridor for high speed rail within the median. This plan required DOT to reconstruct all interchanges/bridges appropriately for high speed rail in the median area.

However, in January 1999, Governor Bush terminated the second attempt by the private sector to successfully implement proposals made to the Commission. Funds for the project were disbursed for highway projects specifically to add to I-4 an interim third lane in each direction.

Since the last high speed rail proposal (by Florida Overland Express, or FOX) was rejected as too costly to the public, increased pressures have mounted to develop alternatives for intrastate transportation beyond vehicular travel on Interstates 4 and 95. One such alternative is for a "light" rail or commuter rail system linking at least between Pinellas, Hillsborough and Polk Counties. One factor adding to the desire for some type of alternative to I-4 is the potential for the Central Florida area to host the 2012 Summer Olympics.

COMMUTER RAIL SERVICE

The City of Lakeland is a member of the Tampa Bay Commuter Rail Authority (TBCRA), which is a multi-county coordinated effort to bring commuter rail services to the cities and unincorporated areas of Tampa Bay. The TBCRC received federal funding to analyze the need for commuter rail in the corridor from Pinellas County to Lakeland in Polk County with Tampa as the “hub” of a potential system. The two aspects funded for study and recommended for system feasibility analysis were a light rail system for Hillsborough County and a commuter rail line on existing CSX tracks from Tampa, via Plant City, to downtown Lakeland.

The proposed commuter line would provide service from Union Station in Tampa to the downtown Lakeland terminal. Startup date for this service was proposed in 2010, with limited service. The full operation of the system was projected for 2015. With the current Federal and state funding alternatives, this commuter rail initiative appears stalled and is not likely to meet this projected schedule. Before plans can proceed, funding must be secured to design the system and analyze environmental impacts.

Tampa/Hillsborough County MPO and HARTLINE, the mass transit provider in Hillsborough, are managing a consultant to produce and implement an “Alternatives for Mobility Enhancement Major Investment Study” (MIS). This study was designed to determine the feasibility and need for modes of future transportation including a “light” rail system (transit fixed guideway) to accommodate commuter traffic in the study region, including between Tampa and Lakeland.

The study area is generally a corridor beginning on the west at Oldsmar in Pinellas County east through Tampa to Lakeland in Polk County (see Illustration III-29). The collection of base data for the mobility study included input of data from local governments in the study area, as well as input from relevant MPOs, environmental agencies, private sector groups and citizens. Construction of an electric streetcar system in Tampa is to be completed in 2001 and will connect major points of interest, including the seaport. Eight cars will operate on a 2.3 mile track for the first phase.

FLORIDA INTERCITY PASSENGER RAIL VISION PLAN

Another rail proposal was made by the Central Florida Technology Transit Corridor Consortium to study the possibility of a train crossing from St. Petersburg, through Tampa, south of Orlando to Port Canaveral along the “high tech” corridor. The objective is to enhance the chances of the area to attract the 2012 Olympics. The consortium proposed a \$1 million study, for which they would pay a portion, and requested the remainder from FDOT via a grant. The legislature approved \$900,000 in 2000 and required FDOT to manage the study. The FDOT will form a technical oversight committee and hold meetings with all affected local governments. The proposal uses existing CSX tracks with perhaps a few new alignments in the future. The Florida Intercity Passenger Rail Vision Plan calls for the ultimate operation (by year 2005) of six daily round trip trains between Orlando and Tampa, four round trips between Orlando and Miami and two round trips between Tampa

and Miami. Amtrak is offering to participate with the State in funding the implementation of this program on a 50-50 basis.

LOCAL RAIL

The City constructed a new train station on Lake Mirror in downtown in 1997. The station was designed architecturally to complement the historic Lake Mirror promenade. Lakeland's train station is designed to serve Amtrak service, and may serve as a future station for commuter rail. Lakeland also received funding through fiscal year 2001/2002 for constructing a multi-modal connector to enhance transfer options between passenger rail, public transit, intracity bus service, and pedestrian links throughout downtown. This connector consists of a sidewalk from the train station west to the Citrus Connection bus terminal along the north side of the rail tracks.

Amtrak runs a passenger train each day through Lakeland to and from Miami, but is considering expanding train service in the future. CSX averages 10 to 12 trains each day through downtown Lakeland, which are primarily freight trains. Five to six trains each day also cross on the Florida Tile/Kathleen Road rail section. A CSX freight train can run 30 to 100 cars per train. These trains run on demand according to customer needs, such as coal deliveries or phosphate transport. Freight rail speeds average between 40 to 60 miles per hour (mph) depending on whether they are travelling in town or in more rural stretches of the network. This is opposed to Amtrak trains which can operate up to 79 mph.

ILLUSTRATION III-29
Light Rail Study Area

ISSUES AND OPPORTUNITIES

There are numerous issues which must be considered in assuring a safe and efficient multi-modal transportation system which meets the needs of the Lakeland Planning Area. The discussion below addresses the traffic circulation system, mass transit, rail, aviation, and non-motorized issues relevant to the Transportation Element.

TRAFFIC CIRCULATION

As is true in virtually every urbanized area in Florida, increased development has decreased the efficiency of the traffic circulation system. Recognizing that the Lakeland Planning Area continues to experience steady growth, key issues in providing a safe and efficient traffic circulation system which responds to community needs includes:

1. Improve access to and through the urban core in the form of east-west and north-south roadways, transit, rail, sidewalks, bicycle facilities and/or other modal improvements;
2. Promote a centralized high density urban center which discourages urban sprawl and offers efficient and convenient service provision;
3. Coordinate the development of proposed future land use and future aviation, rail, transit, roadway and non-motorized improvements and plans;
4. Develop access management standards to protect the capacity and function of existing transportation corridors, protecting the public's investment in those corridors;
5. Integrate transit, bicycle and pedestrian facilities into the overall transportation planning, funding, and implementation processes;
6. Encourage an efficient network for goods movement which will stimulate economic vitality and provide locations for intermodal transfer facilities; and,
7. Require a street network that discourages disruption to neighborhood stability.

Giving close attention to each of these issues will help to ensure the development of a future traffic circulation plan that responds to the needs and desires of Lakeland's residents and visitors.

TRANSPORTATION CONGESTION AND PLANNED IMPROVEMENTS

Congestion occurs on the transportation system when there are more people trying to use the system during a specific period of time than the system can handle with acceptable levels of delay or inconvenience. Transportation system congestion is a critical issue for urbanized areas. Some of the effects of congestion include impeded

mobility, access, air pollution, wasted fuel, and numerous other negative impacts. Transportation system and demand management techniques paired with improvements to the transportation system are strategies used to alleviate congestion.

The Polk Transportation Planning Organization (TPO) developed a "Needs Plan" as part of the development of the Long Range Transportation Plan for 2025. The adopted plan funded approximately 50 percent of the cost of building all projects in the Needs Plan. The unfunded transportation deficiencies are primarily on State and County roads within the Lakeland Planning Area.

The City of Lakeland adopted a transportation impact fee for State, County and City roads in January, 1988 and raised those fees in January, 1991. No fee increases were made for the next decade. Polk County substantially raised its impact fees in 2000. The City has taken an aggressive stand on funding road improvements for State and County roads. Over the next twenty years, most of City-collected transportation impact fees could be spent on several projects including improving and extending key existing or future north-south and/or east-west corridors. For example, the Wabash Avenue Extension to the south and north, creating a new north-south corridor; extending existing east-west corridors such as Edgewood and/or potentially creating new east-west connections such as that between Carpenter's Way and N. Lakeland Hills Blvd. City-collected fees will also be spent on County roads such as Lakeland Highlands (CR 37B), and impact fee credits will be allotted to private development that constructs new major roadway network connectors.

Even with the City's efforts to fund transportation improvements, the State and County road systems have unfunded deficiencies. However, funding is not the only issue. With unlimited funds, the number of necessary road improvements in the Lakeland Planning Area could not be constructed in the next five years. On an average, road improvements in this area take from seven to ten years from point of preliminary planning through design and then completion of construction. Many years of growth in suburban areas using two-lane, often former citrus grove routes, cannot be addressed within a five year budgeting period.

Transportation congestion is often the result of demographic and market forces that are difficult to change. The first step is to examine how actions complement one another over the long run, and how these actions will influence future travel patterns.

A strategy for dealing with transportation congestion needs to contain several components. A program for transportation system improvements must provide cost effective system improvements that are consistent with overall comprehensive plan goals. These improvements can include physical expansion of the highway system, airport runways, bus routes, or sidewalk network, as well as operational changes to improve the performance of the existing transportation system.

In addition, a transportation demand management program must examine ways for managing transportation demand. This is especially important where the opportunity for expansion or operational improvements is limited.

Long-term strategies should pay close attention to coordination of proposed development and future land use from its potential impact on travel patterns.

The overall strategy must also examine the funding requirements necessary for implementation. In most cases, substantial funding will be necessary to deal effectively with congestion.

COST EFFECTIVE SYSTEM IMPROVEMENTS & DEMAND MANAGEMENT

An analysis of the existing and future traffic circulation system indicates the several constrained and backlogged facilities that are, or are expected to be, operating at or below minimum levels of service within the planning period. Tables in the Summary of Finding section listed these segments for 2000, 2005, 2010, and 2015. These are segments which will be close to failing, or will fail, even with planned improvements as per the Adopted LRTP for 2025. These segments are mostly on State and County roadways, throughout the Lakeland Planning Area. The issue then becomes whether to limit new development within these areas to prevent future degradation of existing transportation facilities, or to allow lower levels of service on roadway segments within these areas while promoting use of alternative modes of transportation and encouraging urban density infill development, maximizing central city infrastructure and discouraging urban sprawl.

Along with the constrained and backlogged roadway segments in the urban core, there are a number of roadway links which provide system continuity between those currently failing links. These segments are currently operating at minimum level of service, usually LOS D. In order to achieve the objective of increased transit dependence, these links must be considered the same as backlogged and constrained facilities. In order to support the urban infill objective of the Future Land Use Element and to approach the critical congestion factor required for transit and transportation demand management modes to succeed, some roadway congestion must occur.

One way to increase roadway facility efficiencies is to increase use of/ridership on bus transit systems using the roads in order to decrease the number of individual automobile travel trips. The City of Lakeland's Central Business District, central City area and west Lakeland area constitute the most significant employment centers within Polk County. Development regulations need to be amended to support the existing and planned transit system services and which manage and preserve access on existing transportation corridors.

Ensuring the continued growth and financial viability of the Lakeland area transit system may require future support in the form of local government funding. However, there are many different efficiencies that can result as a consequence of increased use of a transit system. These efficiencies can include lengthening the life of roadway network capacities, reduced energy consumption, protection of air quality, and reduction of right-of-way requirements that in turn reduces disruption to current land uses. These

efficiencies can become very significant as a community matures and finds these issues more and more critical to the community's continued development and quality of life.

The City of Lakeland can also work with the Polk County Transportation Planning Organization (TPO), area major employers or organizations of employers, and the Florida Department of Transportation regarding implementation of Transportation Demand Management (TDM) concepts. These concepts can include car or van pooling, flex time, commuter services, and provision of additional bus shelters on key transit routes as well as at the location of new, major developments in order to encourage transit ridership. Implementation of TDM strategies may assist the City in providing cost effective transportation improvements and delay or reduce the need for additional roadway construction.

Promotion of compact and contiguous land use patterns is another key element in controlling the cost and maximizing the effectiveness of the transportation system. By encouraging infilling of vacant parcels in developed areas and by limiting leapfrog and strip development in outlying areas, the City is better able to limit sprawl and maximize efficiencies in use of facilities and services necessary to support development and redevelopment.

Application of new urbanist and transit friendly design principles in high density and/or mixed use development or redevelopment can also reduce the demand for new roads or transportation improvements by promoting internal trip capture and encouraging use of alternative travel modes such as walking and bicycling. This type of development must be incorporated within a comprehensive pedestrian and bicycle friendly circulation system in order to limit increased demand on the existing road network. Appropriate land development regulations will need to be developed to encourage the use of these design principles within the City.

COORDINATION WITH FUTURE LAND USE

The City of Lakeland is committed to infill development and redevelopment at densities which will ensure more efficient transportation choices in the future. To effectively utilize alternative modes of transportation to the individual automobile, certain circumstances must occur. To promote mass transit, ridesharing, transportation demand management techniques, bicycle and pedestrian travel, several key factors are required:

1. A critical density;
2. Parking restrictions; and
3. Congestion on major routes.

The City has proposed a Future Land Use Map which designates the highest density development to occur in the Central Business District. This district is then surrounded by the Central City and urban development area, which contains two regional activity centers, several community and neighborhood activity centers, and high and medium

density residential uses. Beyond this urban development area most densities fall to medium and low density residential densities. This land use pattern is critical to achieving both a more efficient urban living environment within the City and to encouraging alternative modes of transportation, particularly transit.

Currently, the City of Lakeland allows a large area of the Central Business District to develop without providing on-site parking for individual buildings and businesses. Fringe areas outside the CBD have lower parking space ratios than those located in the suburban fringe areas of the City. Studies have proven that if you continue to provide surface parking spaces adjacent to employment and business, you will not encourage transit use or make transportation demand alternatives attractive enough to support individual transit usage.

If roadway levels of service are the same for suburban, the urban development, and the central business district areas of the City, the critical congestion factor will not be reached. Urban travelers must experience some delay in travel time in order to consider a less convenient mode of travel. Thus, the City of Lakeland must consider allowing some congestion within the urban development and CBD areas of the City if alternative transportation modes are to be viable. This plan's multi-modal level of service standards are intended to achieve a better future balance of use between vehicular and non-vehicular and transit modes.

MULTIMODAL LEVELS OF SERVICE

As part of the 2025 update to the Long Range Transportation Plan for Polk County, the Polk TPO drafted a multi-modal approach to transportation level of service. After review and adoption by the TPO Board, this approach was urged for adoption by all major municipalities in the County in order to ensure that citizens and developers could count on a consistent level of service standard for transportation facilities regardless of which jurisdiction's regulations they were using or reviewing.

The multi-modal level of service standard seeks to recognize that in Polk County there are several areas where transit service is provided, usually with bicycle facilities on the buses, and that transit is connected to the sidewalk (or bike path) networks in the community. The frequency of bus service, 30 minutes, 60 minutes or more, and the extent of the sidewalk network might vary by location and where these factors were present, the level of service on the roadway could be lowered in an appropriate corresponding manner. The concept of multi-modal level of service standards is consistent with the statewide priority to reduce urban sprawl by allowing some additional roadway congestion as an incentive to develop or redevelop within urban centers where most required public services and facilities have been made available. This approach would then maximize the public investment made into the development of those urban services and facilities. Lakeland has some areas with 30 minute transit service and an extensive sidewalk network and other areas with 60 minute service and fewer sidewalks. Table III-20 outlines the multi-modal level of service standards and Illustration III-30 generally depicts where the standards would apply.

Table III-20
Multi-Modal Transportation Level of Service Standards

Base Highway Level-of-Service (LOS) Standards

Area	Minimum Standard (Peak Hour/Dir)
Urban Transit Service Area	LOS "D"
Rural Transit Service Area	LOS "C"

Multi-Modal Transportation Districts

The Multi-Modal Transportation Districts, located within the Urban Transit Service Area, coincide with the service area of the identified fixed-route transit service.

Standard	Highway		Transit	Pedestrian	Bicycle
	Minimum Standard	Duration			
M1	LOS "D" peak direction	Average of two highest peak hours	60 minute headway (Category II)	Sidewalk access to transit stops	Bike racks on buses
M2	LOS "E" peak direction	Average of two highest peak hours	30 minute headway (Category I)	Sidewalk access to transit stops	Bike racks on buses Bike route/system
M3	Not Applicable	Not Applicable	30 minute headway (Category I)	Extensive Sidewalk Network	Bike racks on buses Bike route/system
			route coverage: area within ¼ mile of route		

Source: Polk County TPO, Sept., 2000.

Illustration III-30
Lakeland Area Multi-Modal Level of Service Standards.

ACCESS MANAGEMENT

Traditional transportation planning philosophy has been to spend money on providing additional highway capacity through the addition of lanes, which can be extremely costly and inconvenient. In recent years, more of an emphasis was placed on allocated dollars to Transportation System Management (TSM) projects that focus on relatively low-cost operational improvements that can improve the overall efficiency of the highway network. Such improvements include intersection geometric improvements (e.g. addition of turn lanes) or the coordination of traffic signal timing along a corridor. Another tool that can be used to maintain and improve the operational efficiency of our transportation network is access management. Access management techniques can include the coordination of driveways for joint access (which in turn limit the number of median and curb cuts along a highway), and the development of a parallel local/collector road network to serve shorter trips to adjacent land uses.

U.S. Highway 98 Corridor Access Management District

U.S. Highway 98, also known as Bartow Road near Lakeland, is the only highway which provides a direct north-south link Lakeland to Bartow, the County seat. U.S. 98 is an important freight and goods movement route since it links State Road 570 (Polk Parkway, which provides a limited access connection to Interstate 4) with State Road 60, the primary route between the Lakeland area and Florida's Turnpike to Southeast Florida. With the exception of the Highland City area, this corridor had been mostly undeveloped between Bartow and the Polk Parkway. By 2001, there were impending Bartow annexation and development/redevelopment activities underway along the corridor from State Road 60 on the south to CR 540-A on the north. North of Clubhouse Rd/C.R. 540, a major mixed-use development has been proposed as the University Parkway/Banana Lake Selected Area Plan, just south and west of the Polk Community College and University of South Florida (PCC/USF) joint campus. While Lakeland City limits as of 2001 did not extend to Winter Lake Road, the City's 10-year annexation plan and existing water line service extend to CR 540A and City wastewater service lines extend to Clubhouse Rd/CR 540 near Highland City.

Given these facts, the TPO, Polk County, FDOT and cities of Bartow and Lakeland have proposed to enter into an interlocal agreement to designate the corridor, shown in Illustration III-31, from Bartow to East Main Street at the In-Town Bypass in Lakeland, as the "US 98 Access Management District". Through this agreement, FDOT will develop a Comprehensive Access Management Plan (CAMP), pursuant to Rule 14-97, F.A.C., which will offer various access management options to all three local governments to consider adopting as part of a future amendment to their land development regulations. Significant public and property owner/stake holder input will be required as part of the development of the CAMP. In the interim, representatives of each locality, the TPO and FDOT would comprise an advisory committee to review proposed access requests along the corridor. Designating this portion of US 98 as a "Transportation Corridor" in the City's Comprehensive Plan, pursuant to Section 337.273, F.S., also provides a number of options to help the City and FDOT to respond

to emerging transportation issues within the corridor by coordinating transportation and land use decisions. One such provision of the applicable statute acknowledges that the “advance acquisition of property to manage land uses in transportation corridors for future use will, of necessity, require acquisition without design plans and profiles, project development, and construction information”.

Not only can the implementation of access management measures protect the capacity and function of US 98 for future vehicular travel, they also benefit transit operations, future design for and use of bicycle facilities within the corridor, and will help manage the aesthetics of the gateways to both Lakeland and Bartow found along this corridor.

The Citrus Connection operates its “Bartow Express” hourly fixed-route bus service along the 13-mile corridor between downtown Lakeland and the Polk County Courthouse/Administration Building in Bartow. Maintaining the efficient operation of U.S. 98 will enable Bartow Express to minimize its run time; thereby maintaining the existing coordination with other transit routes and operations in Polk County such as the Lakeland-Winter Haven Connector Route and the InterCity Transit Service operated by the Polk County Board of County Commissioners.

This corridor is also key in terms of future plans for the Ft. Fraser multi-use trail/bike path proposed along the CSX rail corridor, some of which has been inactive and is poised for acquisition should the required funding be made available. The Ft. Fraser trail is key to recreational plans for each locality and would connect to Lakeland's Lake-to-Lake Bikeway/Greenway, Lake Mirror Promenade, Lake Bonny Park and to regional trail systems. To minimize the number of motorized-vehicular crossings of the Trail, access management controls imposed prior to major subdividing of large land owner parcels is vital.

Illustration III-31
U.S. Highway 98 Access Management Corridor

MASS TRANSIT

ENHANCING RIDERSHIP

Mass Transit refers to all forms of high-occupancy and shared-ride services. Within the Lakeland Planning Area, the primary mode of mass transit is a fixed route bus system providing service on at least an hourly basis or even more frequently. Buses are the most flexible form of transit since they can be rerouted or rescheduled quickly to meet changing ridership demand. An important issue in providing mass transit for any area has been and will continue to be generating and maintaining an acceptable level of ridership. Transit ridership is typically enhanced by a scenario of medium to high land use densities, mixed land uses (residential and commercial), some limitations in available or convenient parking, and some roadway congestion on major transit routes.

Transit ridership is also impacted by the type of land uses approved. Land use affects the types of transit trips that are taken and the days of the week and times of the day of these trips. The City can support greater use of transit (i.e., an improved modal split between automobile use and transit use) if some roadway congestion is allowed to occur along transit service routes with frequent transit service (30 minutes or less) and if mixed land uses and medium residential densities are encouraged along transit routes. Also, new development must be required to incorporate transit friendly designs in their layout/site plans. Ensuring that downtown parking facilities are leased at market rates and accommodate the basic parking demand while not providing an overabundance of spaces is another strategy to encourage use of transit and the downtown circulator/trolley service. Given that much of Lakeland's downtown area is already developed and that new parking structures are expensive to construct and would compete with many other City fiscal priorities, the parking situation is likely to continue to favor increased use of transit.

Implementation of responsible and proactive growth management policies can support transit as a more attractive alternative mode of transportation for Lakeland residents. A number of land use guidelines and ordinances are available which favor transit use including a range of zoning and development control measures such as planned unit developments, special districts, mixed-use zones, traffic impact fees and development exactions. In addition, transit friendly design standards are crucial for ensuring the safety and feasibility of a transit stop location for riders e.g., not having to cross a sea of asphalt parking lot with uncontrolled vehicular movements by having building fronts set close to and face the street, or by providing a continuous and safe pedestrianway from the transit stop to the doorway. Providing adequate shelters and transit amenities is another issue. These issues will be examined in a new regional study proposed by the TPO and to be initiated and completed in 2001.

FUTURE TRANSIT SERVICES: A REGIONAL APPROACH

Transit service is included in the multi-modal public transportation strategy proposed in the Metro Lakeland Vision Plan (2020). The Vision Plan recognized the need for a transportation network which served greater Lakeland while maintaining the integrity of neighborhoods and the quality of environmental resources. The Metro Lakeland Vision document identified six priority issues: education, economic development, quality of life, infrastructure, government and private sector leadership. The report notes that the growing need for public transit is linked to these six issues.

In October of 2000, the Polk County Transportation Planning agency held a transit summit, a half-day meeting of elected leaders, citizens and transit patrons, and agency staff members to discuss the future or potential of transit services in Polk County. Part of the recommendations to the TPO Board, local governments and involved agencies was to look at future transit services from a more regional perspective due to the increasing linkages of the City and County transit systems. The TPO recommended a study to evaluate potential funding sources for transit services development and address recommendations for long-term transit improvements including coordination with outside county transit providers. In addition, the report recommends a standard measure for transit services throughout Polk County, including applicable municipalities; this standard is primarily based upon headway (frequency) on the route and rural versus urban area characteristics (see Table III-21, Categories of Transit Service). The geographic areas that each category of service would apply to are shown in Illustration III-32, Lakeland Area Transit Service. This standard for transit services is referenced in the Multi-Modal Transportation Level of Service Standards.

As discussed in the traffic circulation portion of this element, all modes of transportation are considered under the new level of service standards: roads, transit, sidewalks/pedestrian and, to some extent, bicycle use in that the buses have bike racks. These standards, again, would apply throughout the County and in most cities. The multimodal standard indicates that where alternative modes are readily available for transportation, a lower roadway level of service is permissible. This lower standard will occur only where there is a high frequency (30 minute headway) of transit and an existing sidewalk network available. For Lakeland, these alternative modes exist in the downtown and core city area along South Florida Avenue and adjoining streets. The theory is that as roadway congestion occurs, alternative modes of transportation will become more attractive to potential users. This, along with appropriate land use densities, can act as a significant factor to support future transit ridership. The City should prioritize future sidewalk improvements to consider where there are links missing in the network along the 30-minute routes. This effort supports a multimodal approach to transportation level of service.

**TABLE III-21
CATEGORIES OF TRANSIT SERVICE**

FIXED-ROUTE TRANSIT SERVICES

<i>Category</i>	<i>Frequency of Service</i>	<i>Geographic Coverage</i>
I	Headway \leq 30 Minutes	Fixed-route services operated within the urbanized areas and providing access to central business district and intense commercial corridors. Routes serve densely populated areas (densities typically greater than 2,000 persons/mile ² .) Emphasis placed on providing local circulation and land access.
II	30 Min < Headway \leq 60 Min	Routes operated within urbanized areas with service to densely populated residential areas and outlying commercial districts.
III	Headway > 60 Minutes	Service to/through rural and small urban areas with connection to urbanized areas and transit services available therein. Emphasis placed on mobility and express service.

DEMAND-RESPONSIVE (DOOR-TO-DOOR) TRANSIT SERVICES

<i>Category</i>	<i>Description</i>	<i>Services</i>
IV	ADA Complementary Paratransit Service	Door-to-door service provided to individuals residing within 3/4 mile of a fixed transit route who are unable to use the regular routed service. Level-of-service must be comparable that provided on fixed-route.
V	Other Demand-Responsive Services	Demand-responsive services provided countywide, with emphasis on service to the transportation disadvantaged. This category includes agency-sponsored and non-sponsored transportation services provided under the Coordinated Transportation System.

Source: Polk County TPO, Sept. 2000

Illustration III-32
Lakeland Area Transit Service

BICYCLES AND PEDESTRIANS

With increased traffic congestion and limited parking facilities in urbanized and urbanizing areas, bicycle and pedestrian travel has seen significant increases over the past two decades. Conditions in Polk County; however, suggest that relatively little consideration had traditionally been given to walking and bicycling as significant components of the transportation system. In recent years, policy changes at the Federal, State and local levels have placed a greater amount of emphasis on developing the much-needed facilities to accommodate non-motorized travel. For example, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its successor have required that ten percent (10%) of Federal Surface Transportation Program funding be set aside for such “enhancements” to the transportation system as sidewalks, bicycle paths and landscaping. Since the inception of the Transportation Enhancement Program, Lakeland has received \$2.4 million for bicycle/pedestrian improvements within the City.

Sidewalks and bicycle lanes have become standard features on State, County and City arterial capacity improvements within the City. Buses operated by the Citrus Connection include bicycle racks for those who cannot reach the bus stop by automobile. The City has programmed a number of sidewalk, traffic calming, and pedestrian crossing improvements as part of its capital improvement budgeting process, which are intended to improve its bicycle- and pedestrian-friendly environment.

Efforts are underway to plan and implement the Fort Fraser Multi-use Trail along US 98 between Bartow and the Polk Parkway, which will eventually link with the City’s Lake-to-Lake Bikeway/Greenway Connector. The City is also working to connect the “Lake-to-Lake” with the Van Fleet State Trail via the Tenoroc State Reserve and the Williams Development of Regional Impact.

Beyond the provision of adequate sidewalks and bicycle lanes, non-motorized accessibility of an area is also defined by the presence of site-related facilities, such as pedestrian connections to the door of large retail/employment centers, secure bicycle parking, shower/changing room facilities for bicycle commuters, and the selection and placement of bicycle-safe drainage grates. Site features will need to be addressed through the update of the City’s Land Development Regulations, while interior features will require user demand influence upon employers and developers.

RAIL

CSX Rail Transport operates the freight rail system in the Lakeland Urban Area through Winston Yard. Freight service availability is a crucial factor to goods movement in the County and State. It is an alternative mode of moving bulk products and as such can help our area attract industry. In addition, the rail network that CSX operates may hold the key to future commuter rail options for Lakeland.

High Speed Rail may be a long-term option in Lakeland and Polk County but its ability to operate without a substantial public subsidy has raised concerns about its viability. Other options have considered selling rights to private developers along the rail corridor as a way to raise funds for the rail project. In the meantime the Tampa Bay area has been intent upon becoming selected as a site for a future Olympics, the viability of which largely rests on transportation alternatives to I-4 vehicular travel.

Another benefit of a light or high speed rail system is the potential to utilize the system for hurricane evacuation. Currently, as shown in Illustration III-33, Interstate 4 is the main official hurricane evacuation route in the area, as is U.S. Hwy 98. Use of the Interstate-4 roadway for evacuation of coastal populations into Polk and "interior" counties requires substantial lead time to arrange effectively and could significantly impact traffic flows during that lead time. For instance, the FDOT would potentially convert all lanes to one-way lanes heading inland; this requires substantial personnel hours in setting up interchange signs and blockades.

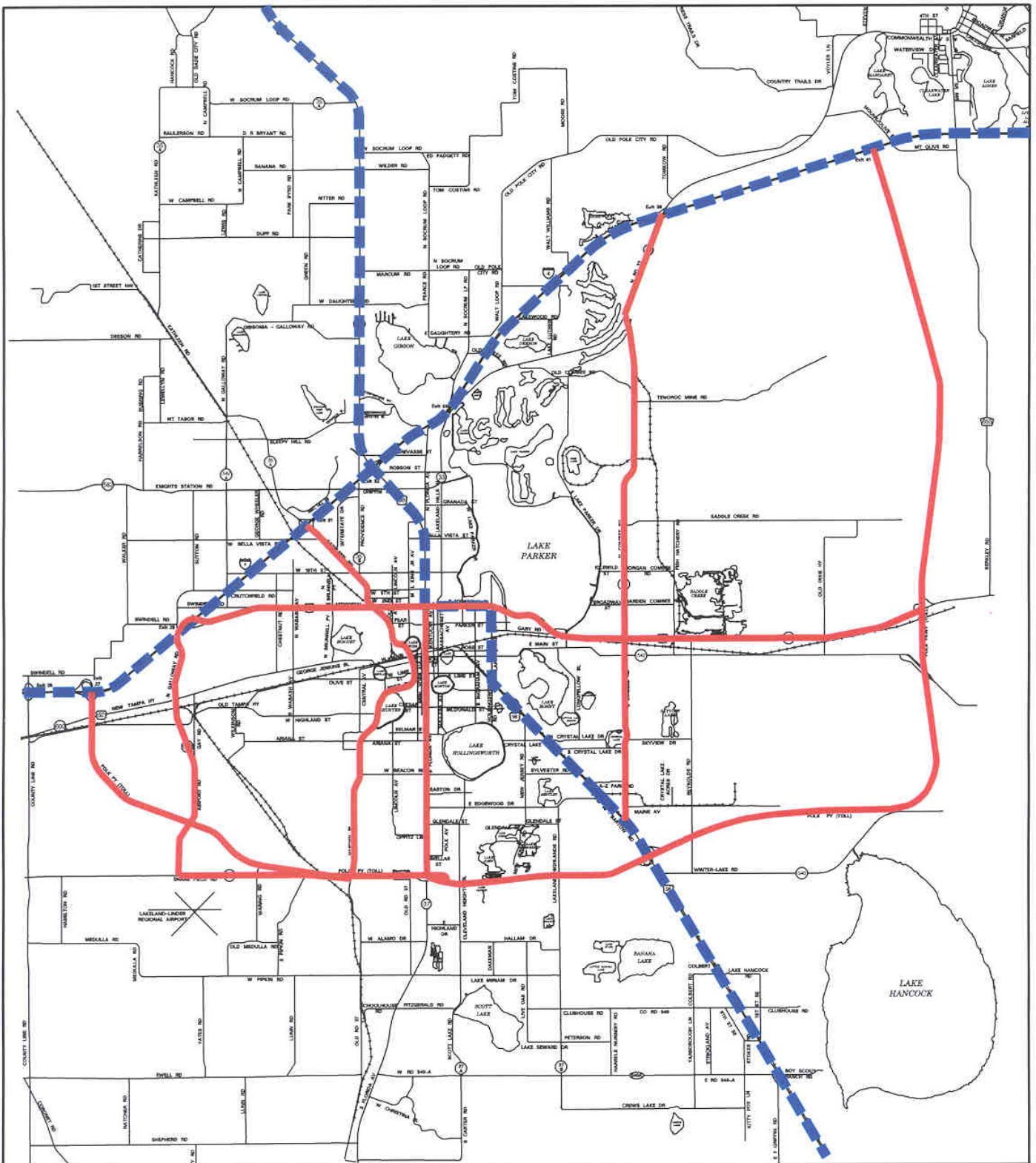
The location of a Lakeland station for high speed or commuter rail alternatives will be a key issue and will be dictated by the route for the system and/or technology for the system. Presuming that the high speed rail system is located along I-4, the Kathleen area exit has several sites in the vicinity with available land for a station location. In any future rail system, consideration should be given to interconnections with the existing LAMTD bus system and the Amtrak passenger rail station on Lake Mirror and how these facilities can be connected to future rail systems. The City's downtown bus terminal, which is slated to have a pedestrian connector to the Amtrak station, must be linked to new rail station locations in order to optimize multi-modal connections. Future park and ride lots for users of intermodal connections to the transportation network, including any high speed rail system, are another concern. These issues require local input to be sure proper planning for integrating high speed rail or light/commuter rail proposals into the existing and planned transportation network in the Lakeland area.

While the light and high speed rail projects receive widespread media attention, the effectiveness of the existing freight rail system should be noted. The CSX Winston Yard and local rail network operate daily with few actual operational problems. The on-site safety at Winston Yard includes few to no injuries at their on-site engine, car and other repair facilities over most of the 1990s. The company has a hazardous materials team in Jacksonville and could contract locally, if needed, for local emergency response to a

rail incident. When hurricanes threaten, loaded rail cars are tied (or braked) down and rail traffic may be suspended by a decision of the Tampa Division of CSX. Overall, the system transports tons of bulk products important to our local economy on a daily basis with few operational problems.

Coordination between CSX and local and State agencies is frequently challenged to meet schedules in a timely manner. Common issues include collocating other utilities in rail right-of-way, finalizing plans for rails-to-trails projects in abandoned corridors, and providing new rail crossings for public access purposes. The City has also sought to purchase a CSX owned site near Lake Bonnet for various potential uses including a park, to accommodate part of the planned In-Town Bypass route, and other possible uses appropriate to the location. It is anticipated that coordination between the City and CSX will continue to be necessary on a regular basis.

ILLUSTRATION III-33 HURRICANE EVACUATION ROUTES



Source: DCA Division of Emergency Management and Polk County TPO

- **OFFICIAL HURRICANE EVACUATION ROUTES (YEAR 2000)**
- **OTHER EVACUATION ROUTES**

EXISTING TRANSPORTATION SYSTEM

III-113

T-03-005
Ordinance #4456
Effective 09/13/2003



AVIATION

The Lakeland Linder Regional Airport currently functions as a full service general aviation facility and is designated as a reliever airport for Tampa International Airport. The primary issue is to ensure that the Lakeland Comprehensive Plan promotes implementation of the Lakeland Linder Regional Airport Master Plan. The City's Future Land Use Map and intergovernmental coordination with Polk County are two mechanisms available to help ensure long-term protection of this public facility from incompatible land uses. Where lands are not already developed residentially, careful consideration of future uses must be made with the understanding that non-residential uses are normally more compatible uses for an airport. Acquisition of surrounding properties is another local tool used to protect the future needs of the airport. Aviation agreements with proximate new residential developments can address protecting future airport activity from adverse land use compatibility concerns. The City's continued participation on the JAZB (Joint Airport Zoning Board) is also important. Encouraging non-residential land uses such as office, research, light industrial and limited commercial and retail uses appropriate to the Polk Parkway interchange areas and the airport can help protect the significant public investment made to the Airport.

The Lakeland Linder Regional Airport Master Plan, a comprehensive document, addresses identified issues concerning the existing aviation facility and proposed facility expansions. Implementation of the existing master plan will result in the provision of adequate aviation facilities to meet projected demand. A new terminal building built in 2001 will triple the facility capacity for airport users.

Protection and enhancement of the future of the Lakeland Linder Regional Airport is an issue which impacts the local economy. The airport's activity impacts the local economy and attracts growth; likewise, the airport in turn is impacted by the local business climate. The Lakeland Linder Regional Airport flight activity substantially increases on a daily basis during the annual seven days of "Sun 'n Fun," a fly-in event for the Experimental Aircraft Association, attracting pilots from all over the nation and the world. In April 2000, 45,371 take-offs and landings were associated with the fly-in event, down from just over 57,000 during 1999's event. This event has significant economic impact to the local economy, estimated by the local Chamber of Commerce at over \$32 million. Estimated attendance at the event has exceeded 680,000 people.

As the Polk Parkway was opened, the land uses near the airport have continued to gravitate toward non-residential uses such as warehousing, industrial, and office uses. The planned Publix corporate office location immediately north of the airport should increase corporate-related flight activity to the airport. This multi-state operation will attract hundreds of vendors each week, with some using general aviation to reach Lakeland. Proximity to the Polk Parkway and development of hotel uses on Harden Boulevard, and potentially on Airport Road, could also enhance the airport as an alternative mode of transportation for business travelers.

As GEICO, Publix, Rooms to Go, and other major employers, including a multitude of warehouse/industrial uses gravitate toward west Lakeland and the airport, the City has made extensive efforts to secure grant and other funding sources to implement roadway access improvements to the airport. One of these improvements, the Medulla Road realignment, will connect county Line Road with Medulla Road just west of the Airside Center, providing an alternative to the existing circuitous and highly curved route that Medulla Road historically used to connect to the County Line Road. Another improvement includes the Waring/Pipkin connector route built as part of a private development. As the airport area is expected to continue to develop as a regional employment center, transit service may require expansion to serve Airport Road and transportation management strategies will be important to implement given limited funding for continued roadway improvements. No funding for the widening of Airport Road is contained in the Long Range Transportation Plan for 2025. Also, relocation of the Memorial Blvd. interchange, as proposed, would link Galloway Road more directly to Interstate traffic. Galloway Road becomes Airport Road to the south. While this interchange relocation would improve direct access to the Interstate for businesses located in the Airport Road area, it could also significantly add to the volume of traffic on Airport Road, making transportation management strategies and transit use even more crucial to preserving the function of this area's roadway network in the future.

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to the transportation system. It should be noted that the word "transportation" refers to motorized and non-motorized modes of getting from one location to another.

For purposes of definition, goals are generalized statements of a desired end state toward which objectives and policies are directed. Objectives provide the attainable and measurable ends toward which specific efforts are directed. Policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Transportation Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan.

GOAL: To provide a safe, efficient, financially feasible, multi-modal transportation system which is responsive to community needs, is consistent with future land use policies, is environmentally sound, and fosters economic vitality.

Objective 1: By 2010, maintain the current total number of crashes thereby reducing the number of crashes per vehicle miles traveled.

Policy 1A: The City of Lakeland will monitor all crash records on a yearly basis to determine accident patterns and high accident locations.

Policy 1B: The City of Lakeland will continue to incorporate optimum traffic safety standards in revised land development regulations.

Policy 1C: The City of Lakeland will continue to implement a pavement maintenance system which allows all City collector roads to be maintained at the minimum pavement rating.

Policy 1D: The City of Lakeland will continue to participate in the Polk County Community Traffic Safety Team.

Objective 2: By 2005, establish access management standards and pursue other activities to measurably increase the operating efficiency of the roadway system within the City of Lakeland.

Policy 2A: The City of Lakeland will continue to evaluate timing sequences on all major arterials and work with the Florida Department of Transportation to implement optimum phasing at all signals on these arterials.

Policy 2B: The City of Lakeland will coordinate efforts with the Florida Department of Transportation to ensure that all railroad crossings are constructed to allow maximum speeds at crossings.

Policy 2C: By 2006, the City of Lakeland will develop citywide access management and site circulation standards, applicable to all public arterial and collector roadways in the City, in coordination with the Florida Department of Transportation and the Polk Transportation Planning Organization.

Policy 2D: The City of Lakeland will continue coordination with the Florida Department of Transportation and Polk County to ensure maximum efficiency measures are used on all new traffic control and laneage improvements in the City.

Policy 2E: The City of Lakeland will coordinate with the Transportation Planning Organization, Polk County, and the Florida Department of Transportation to implement roadway cross-sections for each appropriate Roadway Typology as part of the long- and short-range transportation planning and project production processes.

Policy 2F: By December 31, 2005, in conjunction with the City of Lakeland's designation of Bartow Road/US 98 from East Main Street to its southern corporate limits as a "Transportation Corridor", pursuant to Section 337.273 F.S., and Resolution 4345 endorsing the Corridor Access Management Plan for US Hwy 98 as adopted by FDOT District One in July 2004, the City will adopt relevant access management strategies identified through the US 98 CAMP for incorporation into its Land Development Regulations. New and redevelopment proposals for properties located within the City's portion of the U.S. Highway 98 Corridor Access Management Plan, CAMP, shall be reviewed for conformity with the CAMP, including opportunities to close substandard driveways and opportunities to promote shared or joint access.

Policy 2G: The City of Lakeland will coordinate efforts with the Florida Department of Transportation and Transportation Planning Organization to integrate consistent/complimentary Intelligent Transportation System measures into both the Lakeland Computerized System/Traffic Signal Update and any system that is developed for that portion of Interstate 4 which is within the City.

Policy 2H: The City of Lakeland will work with the Florida Department of Transportation's Turnpike District to develop access management policies/strategies appropriate to interchange areas located within the City, including for SR 570/Polk Parkway. At minimum the City will consider the use of the "Interchange Activity Center" designation for areas adjacent to existing and new interchange areas.

Policy 2I: Access management techniques such as cross-connections, service roads and/or improvements to parallel corridors with lower classification will be required for new development or re-development activities in roadway corridors with Type I roadway typology in order to minimize or eliminate driveway connections that are unnecessary for reasonable property access.

Objective 3: Upon plan adoption, any project requiring a development approval will comply with the Transportation Element and adopted levels of service within this plan.

Policy 3A: The City of Lakeland will continue to collect and expend transportation impact fees to ensure new development provides funding to maintain acceptable levels of service. Approximately every three years, the City will commence a study of its transportation impact fees to determine if any adjustments are necessary.

Policy 3B: The City of Lakeland will review development proposals including Development of Regional Impact applications, rezoning and variance requests, subdivision plats, and any project requiring site plan review for conformance with the Transportation Element.

Policy 3C: The City of Lakeland will review development proposals to ensure safe and convenient on-site motorized and non-motorized traffic flow/access and the availability of adequate parking and other facilities for motorized and non-motorized vehicles.

Policy 3D: In conjunction with access management and site circulation standards developed for City Land Development Regulations, the City will require safe and efficient accommodation of bicyclists, pedestrians and transit patrons, within applicable commercial, office, and multi-family developments.

Objective 4: Per Florida Statutes, as amended, the City declares itself a Transportation Concurrency Exception Area, or TCEA (i.e., citywide, excluding the portion of the City located within the Green Swamp ACSC). Within the City's legislatively allowed Transportation Concurrency Exception Area the City desires to provide a locally preferred and acceptable level of service as detailed in the policies below. The standards consider the existing and proposed multi-modal transportation network and the cost feasible Phase I components of the adopted Polk County Long Range Transportation Plan (see Illustration III-9 of this element).

Policy 4A.1: All new roadways constructed within the City will be designed to accommodate a minimum of Level of Service D and once constructed will not be allowed to fall below Level of Service D. Upon plan adoption, the City of Lakeland will use the following level of service standards in reviewing the impacts of new development and redevelopment upon facilities:

Base Highway Level-of-Service (LOS) Standard:

Area	Minimum Standard (Peak Hour/Dir)
<i>Urban Transit Service Area</i>	LOS "D"

Multi-Modal Transportation Districts:

The Multi-Modal Transportation Districts, located within the Urban Transit Service Area, coincide with the service area of the identified fixed-route transit service.

As part of its next major update to the Transportation Element, the City will, in coordination with the Polk TPO, refine its multi-modal LOS standards as shown below to better define when and what to require in regard to various modal improvements. At that time the City and TPO will also explore how best to protect the integrity of key intersections within M3 District corridors.

FIHS road segments shall be maintained at a minimum level of service of “C”, or as established by FDOT rules (refer to Appendix III-Three in the Technical Support Document for FIHS standards). Facility improvements funded by the Transportation Regional Incentive Program are also restricted to State LOS standards.

Approaches for intersections are normally expected to function at the same minimum LOS standard for the road link of that approach. Details of intersection standards will be outlined in the City’s LDRs but shall generally include mast arm traffic control apparatus as well as pedestrian crossing controls as approved by the City.

MULTI-MODAL LEVEL OF SERVICE STANDARDS

Multi-Modal District	Minimum Highway Standard	Transit	Pedestrian (<i>must be ADA compliant</i>)	Bicycle
M1	LOS “D” for average of two highest peak hours, peak direction	60 minute headway (Category II)	Sidewalk access to transit route	Bike racks on buses
M2	LOS “E” for average of two highest peak hours, peak direction	30 minute headway (Category I) with transit signage, shelters or benches	Sidewalk access generally within ¼ mile of transit routes or stops	Bike racks on buses Bicycle facilities on roadways, preferably within ½ mile of project*
M3**	Volume/Capacity ratio is ≤ 1.25 in peak hour, peak direction***	30 minute headway (Category I) with transit signage, shelters or benches	Extensive sidewalk network within ¼ mile of and direct sidewalk connection to transit stop.	Bike racks on buses Bicycle facilities on roadways preferably within ½ mile of project Bike rack at transit stop and/or project

* Bicycle facilities may mean paved shoulders on roadways and/or designated bike routes such as and including the City’s Lake-to-Lake Greenway Connector, and/or multi-use pathways for pedestrian and bicycle use.

**Application of M3 Standard is conditioned upon several additional factors discussed below.

*** Volume/Capacity ratio shall be based on service volumes and adopted highway LOS standard as given in the Polk TPO’s Roadway Network Database.

Application of the M3 standard is further conditioned upon the following:

- a) Project traffic shall not further degrade the operation of an existing signalized intersection. Single, non-residential re-development uses within the corridor may be allowed an exception to this criteria where other criterion are met including significantly limited passer-by traffic (i.e., limit drive-through bays) and the provision of cross or joint access as well as enhanced multi-modal access.
- b) On and/or off site multi-modal improvements shall maintain or improve mobility and/or safety within the multi-modal district. Transit related improvements must be approved by the applicable transit authority or transit director.
- c) All site plans and internal site circulation shall comply with the City's access management standards as found in Article 26 of the Lakeland Land Development Regulations.

Policy 4A.2: Concurrency related facility improvement costs shall be the responsibility of the developer but could include contribution of funding toward improvements actually made by transit authorities, local governments, FDOT or other official entities. Eligible transit or non-motorized mitigation strategies may include but are not limited to one or more of the following, on and/or off-site improvements:

- a) Funding of bus shelters and/or bike racks, including all installation costs;
- b) Set aside of land and dedicated easement, as needed, for future bus shelter and/or bike rack facilities;
- c) Off-site sidewalk improvements within the M2 or M3 Districts, or fee in lieu of as per the City's sidewalk ordinance;
- d) Funding for enhanced transit services within and/or to the M2 or M3 District;
- e) Depending on the level of congestion, additional strategies may be considered to alleviate project impacts including use of staggered work hours for employees to promote off-peak travel, establishment of employee car or van pools and/or incentive programs for employees to use transit.

Policy 4A.3: If a Transportation Concurrency Exception Area (TCEA) is created within the City limits, operational and safety related mitigation may be required of development projects to ensure continued safe mobility within the transportation network. Improvements needed for development or redevelopment may need to address any combination of the following: coordinated access (cross-access or service roads), signalization, turning lanes, bus pull-out lanes and/or geometric improvements to same. Multi-modal mitigation required under the auspices of a TCEA may include those options listed in 4.A.2 (a)-(e) above which shall be in addition to any operational and safety improvements to the road-based network.

Policy 4B: Development orders, including permits, will not be issued on projects where there is less than the minimum level of service, based on the generalized level of service assessment (Phase 1) for specific roadway links as provided in the City's Roadway Network Database and projected in Appendix III-One (found in the Technical Support Document); projects proposed on links which are

determined to fall below the adopted level of service have the option of providing a more detailed level of service analysis based on a Speed and Delay study following the procedures outlined by the Florida Department of Transportation, Traffic Engineering Office in its Manual for Uniform Traffic Studies, and a Highway Capacity Analysis as outlined in the most current edition of the Highway Capacity Manual, Special Report 209. If the more detailed analyses, after verification by Community Development Department staff, indicate an acceptable level of service, development orders may be issued. If the results of the analyses for level of service are below the adopted level of service in this Transportation Element, appropriate programming in the first three years of the City's Capital Improvements Program, and/or a CRA Trust Fund as also reflected in a local CIP of the City or County, and/or the Florida Department of Transportation Five Year Work Program must occur prior to development order approval. If two or more public access approaches are failing when subjected to Highway Capacity Analysis, the intersection will be deemed not to meet the adopted level of service.

Policy 4C: The City of Lakeland will reduce deficiencies by adding lanes, constructing new roadways, providing transit or other alternative transportation management procedures.

Policy 4D: By the end of 2005, the City of Lakeland will adopt access management standards applicable to all new developments or redeveloped parcels in order to maintain operating speed on arterials and collectors by minimizing driveway and median cuts.

Policy 4E: The City of Lakeland will coordinate efforts with the Florida Department of Transportation and with the Transportation Planning Organization to establish consistency in policies.

Policy 4F: The City of Lakeland will, as part of its Concurrency Management System, monitor the level of service on arterial and collector roadways within the City. The City of Lakeland will coordinate with Polk County TPO to conduct annual traffic counts on all roads on the concurrency network.

Policy 4G: The City of Lakeland will allow private developments to prepare Phase 2 level of service analyses as outlined in *Policy 4B* as an alternative to denial of development orders.

Objective 5: By 2010, increase by 1% from 2000 baseline data, the linear feet of routes for non-motorized travel.

Policy 5A: The City of Lakeland will install new sidewalks, where physically and environmentally feasible, on at least one side of arterial and collector roads in accordance with the prioritization criteria outlined in Policy 6C.

Policy 5B: The City of Lakeland will continue to maintain existing sidewalks in a safe condition and make sidewalk maintenance an extension of the pavement maintenance system.

Policy 5C: The City of Lakeland will continue to incorporate consideration of bicycle and pedestrian facilities in all roadway improvements, consistent with the appropriate Roadway Typology and Citywide Pathways Plan. The City will work with the Transportation Planning Organization, Florida Department of Transportation and Polk County in the identification of locations where sidewalks and bicycle lanes should be included on State and County highway improvements within the City. The City will also work with the TPO, FDOT and Polk County to incorporate bicycle and pedestrian features into intersection projects (e.g., pedestrian signals, raised concrete pedestrian refuges (“pork chops”)) and in resurfacing projects (e.g., addition of four-foot paved shoulders on open-drainage typical sections).

Policy 5D: Through the Citywide Pathways Plan, projects on prioritized Pathway Segments may be implemented through the following methods, where feasible:

- a.) As elements of City capital improvements, including road projects;
- b.) Through stand-alone projects funded by the City with local funds and/or discretionary grant funds from State and Federal sources;
- c.) Through coordination with Polk County and FDOT on road projects programmed in the Lakeland Planning Area;
- d.) As development requirements for projects within the City of Lakeland, including Developments of Regional Impact (DRI) or Planned Unit Developments (PUDs); and
- e.) As suggested Polk County development requirements to include Pathways Segments in new or modified DRIs or PUDs within the Lakeland Planning Area and/or as a means to increase regional connectivity.

Policy 5E: Projects to be implemented through the Citywide Pathways Plan should include:

- a.) 12-foot wide multi-use trails, constructed within 20-foot wide access easements or rights-of-way as stand-alone projects or constructed in conjunction with roadway improvement projects;
- b.) Sidewalks on designated Pathways Segments in neighborhoods or business districts where bicycles can share low-volume roadways with other vehicular traffic, signed with Lake-to-Lake Network and “Bikes Sharing Roadway” advisory signage;
- c.) Designated bicycle lanes on local or collector streets with low-volumes; and
- d.) Unpaved trails, constructed within 20-foot wide access easements through natural areas or between natural and developed areas to serve an added benefit as wildfire buffer.

Policy 5F: The City of Lakeland shall annually review high priority Pathways Segments to determine the feasibility of specific projects for inclusion in the Capital Improvement Plan (CIP). The following subjective measures shall be utilized in the selection of these specific pathways projects, including:

- a.) **System connectivity and continuity.** This relates to the project's ability to link on- and off -road facilities and support a more seamless non-motorized transportation network between trip origins and destinations. The intent is to avoid ranking of piecemeal projects that may not provide much benefit to system or corridor continuity.
- b.) **Assessment of cost feasibility (or cost-benefit),** which includes potential right-of-way acquisition and community or business impacts relative to the potential value of the connection.
- c.) **Safety Mitigation.** The ability of the project to mitigate perceived safety or potential safety problems regardless of crash data history. This information is derived from focus groups, discussions with agency staff, community input and/or professional judgment.
- d.) **Mitigation of Obstacles or Barriers.** Because barriers are difficult to precisely define and compare equitably, this subjective measure considers the degree to which the project helps overcome barriers, such as a wide highway, fast traffic, an interstate, drainage canal or similar feature. Barriers defined in the Pathways Planning public input process as well as the support documentation for the Parks Connectivity component should be addressed under this criterion.

Policy 5G: Connectivity shall be established by Park type to implement the Parks Connectivity Plan, as discussed in the Transportation Element. Specific improvements shall be implemented where feasible and in accord with the needs and recommended projects identified in the support documentation (Section One and Section Two) for the City's Parks Connectivity Plan.

Policy 5 H: The City of Lakeland will, by the end of 2006, consider incorporating standards in the City Land Development Regulations which require private sector construction of sidewalks within subdivisions. These standards shall also address bicycle/pedestrian access and circulation in non-residential and multi-family residential developments.

Policy 5 I: The City of Lakeland will continue to develop the Greenway system discussed in the Recreation and Open Space Element in order to increase the number of bicycle and pedestrian trips.

Policy 5 J: The City of Lakeland will continue to utilize and when needed to update its Engineering Standards Manual to include standard typical sections for all public and privately funded collector and arterial roadways to be constructed within the City. Future updates to the Engineering Standards Manual shall consider modifications

based on the Roadway Typology cross-sections discussed in the Transportation Element. At a minimum, these typical sections shall include five-foot sidewalks on one or both sides of the street and include standard-width bicycle lanes, where appropriate, on-street parking where appropriate and provisions for transit. These typical sections shall also apply to privately funded streets that will serve as a component of a frontage, backage or other access road system for new multiple developments.

Objective 6: By 2010, increase ridership of the transit system by 30% from year 2000 levels.

Policy 6A: As part of any given neighborhood plan, the City of Lakeland will analyze the existing sidewalk network and identify key gaps in pedestrian routes, including near schools and transit stops.

Policy 6B: Funding priorities for future sidewalk improvements shall support transit use and the City's multi-modal transportation level of service standards. The following funding prioritization shall apply within City limits and any of the following may include network improvements for the disabled (e.g., curb cuts for ramps):

- (a) a critical public safety concern or emergency;
- (b) improvements to the existing network along LAMTD routes providing 30 minute headways, and secondarily, improvements to the network within ¼ mile of these routes;
- (c) specific pedestrian needs identified by elementary schools;
- (d) pedestrian needs identified in City neighborhood improvement plans, including improved access to City parks;
- (e) improvements to enhance multi-modal corridors (including along designated greenways or trails such as the Lake-to-Lake Connector)
- (f) non-elementary school-related pedestrian needs;
- (g) other identified system needs.

Policy 6C: Identified sidewalk gaps and deficiencies along and within ¼ mile of the LAMTD 30 minute routes, including general cost estimates for addressing needed improvements, shall generally be given high priority in capital improvements budgeting for sidewalk construction or reconstruction, as consistent with Policy 6B.

(GOPs continued on next page)

Policy 6D: The City of Lakeland will encourage private sector support of transit services through development incentives. Use of transit friendly site or subdivision plan designs shall be encouraged throughout the Central City area; it shall be required in all new DRIs and all new major commercial development located at a transit stop and along any portion of a transit route with a 30 minute headway as per illustrations within this Element or the Land Development Regulations, whichever is more up-to-date. Major commercial development for purposes of this policy shall mean, at a minimum all new shopping centers/plazas or supercenter stores, or commercial infill at an existing transit stop.

Policy 6E: The City shall evaluate the transit design standards recommended by the 2001 TPO transit study in conjunction with consideration of new urbanist and other design standards, for potential amendments to the Lakeland land development regulations.

Policy 6F: The City of Lakeland will continue coordination with the Lakeland Area Mass Transit District, the Transportation Planning Organization, and the Florida Department of Transportation to ensure maximum consideration be given to transit services in planning and programming of all agencies. By 2006 and in coordination with the FDOT, the City will construct Phase One of a transit/multi-modal Park and Ride Lot located beneath the In-Town Bypass and within Downtown Lakeland, as recommended by the Polk Countywide Transit Study. Where feasible, the City shall pursue enhancement and/or expansion of the Downtown Park and Ride Lot to accommodate additional vehicles and patron needs.

Policy 6G: The City of Lakeland will implement land use policies in support of increased transit, which includes encouraging mixed use developments and medium or higher residential densities within ¼ mile of any transit route with a 30 minute headway.

Objective 7: By 2010, provide planning and programming to meet highway access deficiencies to air and rail terminals.

Policy 7A: The City of Lakeland will coordinate efforts with the Transportation Planning Organization and the Florida Department of Transportation in assigning priority status to projects which are identified in airport and rail facility master plans.

Policy 7B: The City of Lakeland will develop incentives to private development which use passenger rail or air to provide a major portion of commuter trips.

Policy 7C: The City of Lakeland will develop alternative corridor improvement criteria to evaluate local and collector road traffic deficiencies, including on links which access airport, rail, and other multi-modal facilities.

Policy 7D: If the decision is made to build a segment of the high-speed rail line in Lakeland, the City will work in cooperation with the High Speed Rail Authority as well as State and private agencies involved in the development of the system to ensure that

environmental, noise or other significant external impacts associated with the system are fully assessed and that reasonable attempts are made to mitigate impacts and ensure consistency with the Lakeland Comprehensive Plan.

Policy 7E: The City of Lakeland will work with the Lakeland Area Mass Transit District (LAMTD), the Florida Department of Transportation and the Polk Transportation Planning Organization to plan and program appropriate types and levels of public transit or enhanced surface access to maximize intermodal connections (e.g., transit, automobile, non-motorized) should a station site that is intended to serve Florida's intrastate high-speed rail system be located within the City.

Policy 7F: The City shall promote and support programs designed to capture and enhance the secondary technological or other benefits of high speed rail projects including educational programs and centers, design and manufacturing firms, and research and development projects.

Policy 7G: The City of Lakeland will coordinate with Polk County, Hillsborough County, the City of Plant City, and the Polk Transportation Planning Organization to address concurrency and access management issues concerning County Line Road.

Objective 8: Continue to develop and implement policies which will discourage disruption of neighborhoods by increased traffic.

Policy 8A: Conduct a re-evaluation of truck routes Citywide.

Policy 8B: The City of Lakeland will incorporate motorized and non-motorized traffic issues in all neighborhood plans developed by the City.

(GOPs continued on the next page)

Policy 8C: The City of Lakeland will continue to implement and evaluate the effectiveness of the traffic calming strategies detailed in its “Neighborhood Traffic Management Program”.

Objective 9: By 2010, provide a traffic circulation system which will meet adopted Levels of Service standards and support the uses shown on the Future Land Use Map or map series.

Policy 9A: The City of Lakeland will prioritize highway system improvements based upon correction of existing deficiencies, available right-of-way system continuity, development of central core, development of infill areas, and consistency with needs generated by future land uses.

Policy 9B: The City of Lakeland will continue to base development approvals upon adequate system capacities at acceptable levels of service, as established in Policy 4A, to accommodate the impacts of the proposed development concurrent with the impacts of development.

Policy 9C: The City of Lakeland will monitor the major transportation network annually.

Policy 9D: The City of Lakeland will coordinate efforts with the Transportation Planning Organization, the Florida Department of Transportation, Polk County and other municipalities in data sharing, standards interpretation, and concurrency management issues relating to roadway levels of service.

Policy 9E: The City of Lakeland will participate in the any future updates of the 2025 Long Range Transportation Plan through the Transportation Planning Organization planning process.

Policy 9F: The City of Lakeland will assess the annual status of City, County, and FDOT five year work programs for their effect on anticipated levels of service and system capacities.

Policy 9G: The City of Lakeland will establish a mechanism, through the Transportation Planning Organization, of prioritizing "backlogged" facilities on the State road system in order to support County and municipal land use plans.

Policy 9H: The City of Lakeland will coordinate with the Transportation Planning Organization, Lakeland Area Mass Transit District and Florida Department of Transportation to establish strategies to reduce reliance on single occupancy automobile trips, such as encouraging large employers to develop commuter assistance incentives for employees that carpool/vanpool, and/or utilize transit or non-motorized modes for commuting trips. The City will also coordinate with entities such as Bay Area Commuter Services to publicize such alternatives and to assist with data collection

efforts that might be needed to address regional commuter patterns (e.g., Hillsborough and Pinellas County to Lakeland and vice versa).

Policy 9I: The City of Lakeland will coordinate with the Lakeland Area Mass Transit District, Transportation Planning Organization and Florida Department of Transportation to implement plans for Lakeland area park-and-ride lots, as identified in *the 2025 Long-Range Transportation Plan*.

Objective 10: All roadway, aviation and rail improvements will be evaluated to measure impacts to the natural, neighborhood and cultural resources affected by such improvements.

Policy 10A: Construction of all roadway, aviation, and rail improvements, including expansion and new facility sitings, will minimize the disruption of wetlands, wildlife habitats, parks and other areas vital to a healthy ecological balance. The City's Land development regulation's section on Natural Resources addresses impacts to natural resources.

Policy 10B: Construction of new transportation projects will meet, or exceed, the minimum requirements for stormwater retention and treatment as set by Federal, State, regional or local regulations.

Policy 10C: The City of Lakeland will minimize disruption to the historic environment in designated neighborhoods as well as individual historic buildings that result from construction of new transportation projects.

Objective 11: Continue to develop a safe and convenient multi-modal transportation network that supports economic diversification and stability, including in the Central Business District.

Policy 11A: The City of Lakeland will work with the Transportation Planning Organization to ensure that the 2015 Long Range Transportation Plan provides an adequate network for ease of goods movement.

Policy 11B: The City of Lakeland will enhance multi-modal transfer facilities through Transportation Planning Organization priority setting.

Policy 11C: The City of Lakeland will give consideration to local goods movement in truck routing considerations for all neighborhood plans.

Policy 11D: The City of Lakeland will support and promote implementation of the Master Plan for Lakeland Regional Airport, ensure that the plan is updated periodically, and maintains consistency with the Lakeland Comprehensive Plan.

Policy 11E: The City of Lakeland will continue to direct proposed non-residential developments, where appropriate to seek sites in the industrial park adjacent to the airport or within the airport facility.

Policy 11F: The City will refer to the regulations of the Joint Airport Zoning Board (JAZB) regarding height, noise, and land use compatibility consideration for proposed development near the Lakeland Linder Regional Airport.

Policy 11G: The City shall require aviation agreements for new residential subdivisions or multi-family developments located near the City's airport property.

Policy 11H: The City shall address any safety issues for city parking facilities as a top priority within its regular physical maintenance activity for these facilities.

Policy 11I: Future or renewed City leased parking agreements shall consider area market rates and "at-cost" fee schedules to accommodate employee parking needs.

Policy 11J: The City shall consider formation of a Transportation Management Association (TMA) whose membership should include City representatives, an LDDA representative, and membership of the Downtown Lakeland Partnership and/or its Board. The TMA should coordinate with FDOT and the Polk TPO staff, as needed. The purpose of the TMA would be to explore alternatives for meeting downtown transportation and parking demands including the use of intermodal facilities for transit, rail, walking, use of remote parking with shuttle service, and provision for bicycle lanes and racks. Maximizing available parking in the Central Business District should include examination of the use of flex schedules by downtown employers, public-private partnerships for funding of parking improvements including any new garages or parking decks, remote parking lots, transit shelters, and additional on-street parking as part of any new roadway improvements which directly impact the Central Business District. The TMA may also wish to consider review of all such roadway projects for provisions of compatible street design including streetscapes/sidewalks, bike lanes and transit amenities.

Objective 12: Develop a program to protect existing and future traffic circulation, aviation and mass transit rights-of-way from encroachment by development.

Policy 12A: The City of Lakeland will evaluate program options that could potentially stabilize the cost of right-of-way acquisition for construction of transportation improvements. Implementation efforts must consider the legal issues and constraints posed by taking concerns.

Policy 12B: The City of Lakeland will explore the feasibility of regulations which establish a right-of-way reservation program for all projects in the 2015 Short-Range Component of the 2025 Long Range Transportation Plan.

Policy 12C: The City of Lakeland will coordinate efforts with Polk County and the Florida Department of Transportation to ensure right-of-way protection on State and County roads.

Policy 12D: The City of Lakeland will include the needs of the Lakeland Area Mass Transit District in its right-of-way reservation and acquisition programs.

Objective 13: Continue to identify major transit trip generators and attractors and, to the maximum extent possible, coordinate and communicate with the LAMTD where the City has plans to expand City boundaries and/or wastewater line service.

Policy 13A: The City of Lakeland will work with the Lakeland Area Mass Transit District to coordinate proposed mass transit service area expansions with identified major trip generators and attractors.

Policy 13B: Where the City extends wastewater service to an area outside but contiguous to the boundaries of the Lakeland Area Mass Transit District, and/or where a property has voluntarily annexed into the City and is outside and contiguous to the District, the owners shall petition for voluntary inclusion into the transit district prior to the adoption of City zoning. Nothing in this policy shall bind the LAMTD to accept such petition.

Objective 14: Continue to coordinate mass transit plans with the plans and programs of the Transportation Planning Organization and the Florida Department of Transportation Five-Year Plan and increase ridership by a minimum of six (6) percent per year.

Policy 14A: The City of Lakeland will review proposed Lakeland Area Mass Transit District plans to ensure consistency with appropriate local and State transportation plans as well as the Lakeland Comprehensive Plan.

Policy 14B: The City of Lakeland and Lakeland Area Mass Transit District establish a coordinated level of service for mass transit as per the multi-modal level of service standards found in Policy 4A above.

Policy 14C: The City of Lakeland will monitor the financial viability of the LAMTD system as per the TPO annual updates to the Transit Development Plans and the meetings of the LAMTD Board. The City will generally support actions that may enhance the long-term financial viability of LAMTD, including but not limited to cost efficiencies in services and administration, revenue increases through taxing district expansions, and other options proposed by LAMTD.

Policy 14D: The City will support LAMTD applications for federal or state grant programs and service developments which enhance transit ridership including amenities such as shelters and/or applications for funding of multi-modal connections, including

facilities such as park and ride lots or remote parking areas with shuttle/express services for employees.

Objective 15: Coordinate proposed road, airport and non-motorized improvements with the plans and programs of the Polk Transportation Planning Organization, Polk County, the Florida Department of Transportation, other appropriate agencies and ensure consistency with the Lakeland Comprehensive Plan.

Policy 15A: The City of Lakeland will review expansion of existing transportation facilities or new facility proposals for consistency with all related policies in the Lakeland Comprehensive Plan.

Policy 15B: The City of Lakeland will protect airports and other transportation facilities from encroachment of incompatible land uses through implementation of the Future Land Use and Conservation Elements of the Lakeland Comprehensive Plan.

Policy 15C: The City of Lakeland will encourage coordinated intermodal management of surface and air transportation to maximize the efficiency of the overall transportation system.

Objective 16: Develop non-capital transportation improvement techniques to maximize the existing transportation system.

Policy 16A: The City of Lakeland will develop updated traffic circulation networks to examine such issues as one-way pairs, opening platted rights-of-way, and improving signage.

Policy 16B: The City of Lakeland will give consideration to low cost improvements to the transportation system, including intersection signalization adjustments, signage improvements, and other techniques in its capital budgeting process.

Policy 16C: Neighborhood plans will consider the street as a public place where the existing street system is enhanced through various techniques such as streetscaping and traffic calming to encourage the use of non-motorized modes of travel and transit on at least those facilities that operate as collector or local roads.

Objective 17: Coordinate the expansion of existing or siting of new air, rail, road or related transportation facilities with the Future Land Use and Conservation Elements of this comprehensive plan.

Policy 17A: The City of Lakeland will review all transportation projects for consistency with the Future Land Use and Conservation Elements of the Lakeland Comprehensive Plan.

Policy 17B: The City of Lakeland will require strategies that mitigate adverse structural and non-structural impacts upon adjacent natural resources and land uses resulting from transportation facility construction or expansion, consistent with the Conservation Element of this Plan and all applicable State or Federal Regulations.

APPENDIX III-ONE

(A) LEVEL OF SERVICE PROJECTIONS WITHOUT IMPROVEMENTS

(B) LEVEL OF SERVICE PROJECTIONS WITH IMPROVEMENTS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX III-TWO

LEVEL OF SERVICE WITHOUT IMPROVEMENTS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX III-THREE

STATE LEVEL OF SERVICE STANDARDS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

IV. INFRASTRUCTURE

INTRODUCTION

Infrastructure, as defined by Rule 9J-5, Florida Administrative Code, means "those man-made structures that serve the common needs of the population." This element of the Lakeland Comprehensive Plan addresses the provision of potable water, wastewater treatment, solid waste disposal, stormwater management, and protection of natural groundwater aquifer recharge areas.

Growth through new development places increased demands on all public services, but the infrastructure for water, sewer, drainage and roads are, by far, the most costly needs to address. This Plan requires that all infrastructure needed to support new development be in place concurrent with the impacts of such development. The Plan also discusses the identification of methods to ensure that new development pays its proportionate share of the cost to provide the infrastructure needed by the development. Only through strict enforcement of these measures can local governments ensure that future growth will be orderly and economical.

Data and analysis necessary for development of the Infrastructure Element are found in the technical report entitled Lakeland Infrastructure, in the City's 1998 Evaluation and Appraisal Report and in supplemental City data collected for the statutory required update to the Potable Water Section of the Element. Supplemental data and documentation for the potable water update may be found in the City's Technical Support Document.

The Infrastructure Element is divided into several major sections which address legislative requirements for the issues of potable water, wastewater, solid waste, stormwater and natural groundwater aquifer recharge. Following this introduction, the second section discusses a summary of findings or existing conditions for each infrastructure-related issue. The third section examines issues and opportunities related to the infrastructure system, while the fourth section includes goal, objective and policy statements.

SUMMARY OF FINDINGS

An important first step in the preparation of this Infrastructure Element was an inventory and analysis of Lakeland's existing potable water, wastewater, solid waste, stormwater and natural groundwater aquifer recharge facilities and functions. The primary purpose of this inventory and analysis was to determine how well the existing infrastructure system is meeting present needs and how well it can be expected to meet future needs. For purposes of clarification, population projections used for estimating future needs were derived from the 1999 supplement to the Lakeland Population support document. These population projections represent the medium range projections utilized throughout this Comprehensive Plan. However, population for the water service area is projected by the Water Utilities staff; this service area has historically extended well beyond the City limits.

POTABLE WATER

The Lakeland water system began in 1905 with a single well at the corner of Massachusetts Avenue and Cedar Street. By 1979, a system of some 33 dispersed wells had become inefficient and the Lakeland City Commission approved a water master plan to meet the City's current and long-range potable water needs. The older wells were either phased out or converted to monitoring wells to track the potentiometric surface (pressure) within the upper Floridan aquifer which serves as a primary source for drinking water wells. In the early 1980's, the City commenced a water improvement program and the Thomas B. Williams Water Treatment Plant and Northwest Wellfield were to be the City's new primary potable water source.

The raw water supply source for the water service area is drawn from a network of 13 deep wells collectively known as the Northwest Wellfield. The Northwest Wellfield area was subjected to hydrological studies prior to wellfield design. In addition, the Southwest Florida Water Management District (SWFWMD) required an aquifer performance test as a condition of its issuance of a consumptive use permit. The original hydrological studies and the aquifer performance test for the Northwest Wellfield complex were completed by Camp, Dresser, and McKee. The maximum permitted daily flow for the Northwest wellfield had been approximately 28.1 million gallons per day (MGD); however, this permit expired in late 2003 and a new permit request was submitted to the Southwest Florida Water Management District for review prior to the expiration date.

EXISTING SERVICE SYSTEMS AND DEMANDS

The City of Lakeland water service area has historically extended well beyond the city limits of Lakeland. Illustration IV-1 shows the water service area as of 2007, including changes south of the Airport as per an interlocal agreement with Polk County. The existing water service planning area contains approximately 85,540 acres, or 134 square miles. However, the planning area is not, in all cases, the same as where service currently exists, but is a potential service area. Lakeland also had owned and

operated a potable water system for Polk City but this system was sold to Polk City in January 2002. Since the wells and lines serving Polk City were located in Polk City, separate from the Lakeland system, the sale of the Polk City water system that served about 1,903 people did not have any impact on Lakeland's water operations.

Since 1982, the service area has historically been supplied water from the Northwest Wellfield and the Thomas B. Williams treatment plant; see current water facilities Illustration IV-2. Water treatment occurs at the T.B. Williams Water Treatment Plant located on the east side of Kathleen Road; treatment consists of lime softening, water stabilization, filtration, fluoridation, chlorination and disinfection. Periodic system upgrades to both the treatment plant and the water distribution system should extend the facility's life span through 2040 or later. Pump stations are expected to adequately perform through 2040. There are no current water quality problems; all finished water quality indicators meet or exceed state standards.

After water is treated, it is pumped to customers through a network of over 959 miles of pipeline, ranging in diameter from 2 to 54 inches, or the water is stored for peak use times. Primary storage for the system consists of two 5-million-gallon pre-stressed concrete tanks. Elevated storage tanks are no longer used. There is also a 3-million-gallon ground storage tank at the Lakeland Highlands Pump Station.

Until 1993, the withdrawal quantities permitted for the Northwest wellfield and treatment plant were 28.6 MGD annual average daily flow, 55 MGD maximum daily flow. A property in the northeast area of Lakeland consisting of approximately 770 acres was leased in 1989 and, then, eventually purchased in 1990 along with an additional 93.44 acres. The purchase was subject to the City being able to obtain a Water Use Permit from the Southwest Florida Water Management District for that site. This first required conducting a successful aquifer performance test (APT) on a well that was installed. The City installed five (5) production wells on that site and the District issued a Water Use Permit for that Northeast Wellfield in December 1989 for up to 9 MGD annual average daily flow and 16 MGD maximum.

The SWFWMD issued a combined water use permit in 1993 for the Northwest and Northeast wellfields. This new 1993 permit would have allowed up to 9 MGD annual average flow and 11 MGD Peak Monthly Daily from the NE Wellfield to basically supplant that much withdrawal from the NW Wellfield, should it be needed. The total permitted withdrawals for our system was decreased to 28.1 MGD AADF and 33.7 MGD Peak Month Average Day. (The maximum day value was removed and replaced with a peak month average day.) In January 2003, the SWFWMD again modified the WUP by rule with the creation and adoption of the Southern Water Use Caution Area (SWUCA). The permitted amount was lessened again to 28.03 MGD AADF.

However, except for monitoring and testing purposes, the opening of the NE Wellfield was postponed until the growth in demand for water justified the development of the NE Wellfield and the initiation of construction of the C. Wayne Combee Water Treatment Plant. This happened to coincide with the Water Utilities' request for its Water Use

Permit renewal in late 2003. The permit was renewed in March, 2008, at an increased allocation from 28.03 to 30.2 MGD. This new water treatment plant was necessary to provide redundancy for the City's potable water system and to treat and serve water pumped from the NE Wellfield; the C. Wayne Combee Water Treatment Plant located on Old Combee Rd began operation in October 2005.

The City now has a total design capacity of 59 MGD (51 MGD for Williams WTP and 8 MGD for Combee WTP.) The SWFWMD permitted withdrawals are for only 30.02 from Williams WTP alone or both treatment plants. Flows from the Combee WTP average less than 4 MGD with the Williams WTP averaging approximately 22 MGD. According to the City Water Utilities, approximately seventy percent (70%) of plant demand serves the incorporated area with the remainder, 30%, serving the unincorporated area.

The existing demand on Lakeland's water system, with a 2006 water service area functional population estimate of 170,020 persons, was about 25.6 MGD Annual Average Demand and 31.83 MGD on a Peak Monthly basis; this equates to about 148 gpd/capita for both residential and nonresidential uses.

The City of Lakeland Water Division operates as a regional water supplier in that it provides service to unincorporated areas such as Highland City as well as selling water to private franchise systems, including Polk County Utilities, Skyview Utilities, and AquaSource (Aqua Water) Utilities. In addition to these public systems, there are a number of large private water systems in the Lakeland water service planning area, as shown in Illustration IV-3. (The complete list of private facilities is in the Technical Support Document, Appendix IV-A.)

Illustration IV-1: Lakeland Water Service Area

Illustration IV-2: Lakeland Water System Existing Facilities

Illustration IV-3: Well Permits Greater than 100,000 GPD

FUTURE CONDITIONS

Water Use and Conservation: The top priority of the City of Lakeland is to provide customers within the corporate limits with an adequate and safe supply of potable water. Once the needs of City residents are met, surplus supplies are available for customers outside the corporate limits. The municipal water system currently provides potable water for residential, commercial and industrial uses. In order to ensure the availability of an adequate supply of quality potable water to meet demand, projections must be made of the future service area population.

In 1990, the Thomas B. Williams Treatment Plant serviced a population of 131,232 with a per capita consumption of approximately 183 gallons per day. In 1998, the service area population reached 156,471 and per capita consumption dropped to approximately 153 gallons per day. This reduction can be attributed, in part, to increased education and awareness of the need to practice water conservation. For the purpose of projecting future potable water needs, it is estimated that per capita consumption will continue to show a gradual decrease, as it has every year since 1981. The City has set a target or goal of per capita domestic (residential) water consumption of 150 gallons per capita per day and a long-term goal of additional reduction. The goal of reduced consumption will be achieved through the continued implementation of a City-wide water conservation plan, including the implementation of technological advances contributing to water conservation, and heightened public awareness of the significance of the decreasing supply of quality potable water and new/increased water reuse projects.

Key tools for water conservation have included implementation of an inverted-block rate structure for potable water consumption as of 1998. This encourages water conservation by increasing the cost of the service as consumption increases. For example, the City's modified rate structure implemented in October 2006 incorporated a four-block tier versus the former three-block tier. The inverted rate increases the costs for water for residences that use over 7,000 gallons per month, with a significant increase if consumption exceeds 19,000 gallons per month. Additional rate increases are likely to be proposed over time as one of many ways to support water conservation.

In March, 2000, the City Commission approved adjusting Water Utility rates or fees each year based upon the Public Service commission's Annual (Price) Index Adjustment for inflation. As a result, Lakeland is part of over 70% of the regulated utilities that utilize this price indexing option.

Other conservation efforts have included use of Florida-Friendly landscaping at City parks, City Hall, and other City properties, and increasing use of shallow aquifer wells to meet irrigation needs of new development wherever feasible. Lakeland also uses wastewater effluent to help meet cooling water needs at the City's McIntosh Power Plant. New generators scheduled to be constructed are expected to significantly increase the effluent used for cooling water. Estimates by Lakeland Electric indicate the effluent use will increase from about 4.6 MGD in 2005 up to 10 MGD by 2017.

Additionally, of the average of about 10+/- MGD of wastewater treated at the City's two wastewater treatment plants in FY 2007, as indicated below in Table IV-9, an average of about 5.39 MGD of treated effluent was used for cooling purposes at the City's power generation facility known as McIntosh. An additional average of about 4.5 MGD was utilized that year for purposes of blending with the water leaving McIntosh; due to high concentrates of brine upon emission from the power plant, this water must be diluted prior to discharge to the City's wetlands and later to the Alafia River. Thus virtually all of the City's treated wastewater was re-used. In addition to conservation measures, the City also implements a number of water conservation strategies such as promoting the use of low flow water devices, rain sensors, and public educational programs. Details of water conservation strategies can be found in the Conservation Element of the Comprehensive Plan and in the Technical Support Document, Appendix IV-Two.

Regulatory action has been taken to require the inclusion of reuse water systems in districts that may be established by the City as non-potable irrigation water service areas. In 2006 the City amended the City's Land Development Regulations to require the installation of reuse lines, at the developer's expense, for all new subdivision projects within the established non-potable water service areas. Engineering studies are currently being conducted to establish the Southwest Lakeland area as a potential reclaimed water service area to be pursued as part of a cooperative effort with Polk County to address their need to dispose of excess treated wastewater effluent.

Reducing water consumption among residents takes time. The City did not achieve a reduction in use from 180 gpd/capita to about 148 gpd overnight; it took from 1990 to 2006, or sixteen years. In addition, like many things, reducing water consumption below a certain level is expected to become very difficult and perhaps expensive to achieve per City water officials. This reflects the principle of diminishing returns; that is, beyond a certain point, water demand reductions will be slow to occur and only very expensive options will render any additional change/reduction. Given the City uses all of its wastewater effluent to meet the City's power plant cooling needs, the City by itself has no public-access reuse/reclaimed water readily available to substitute for potable water for customers' irrigation needs. Thus, the per capita rate may remain higher than communities/utilities that have that option. However, use of higher water fees/rates, pursuit of water conservation initiatives, enforcement of watering restrictions and formulation of re-use (reclaimed) water cooperatives with Polk County, Mulberry, Auburndale or others who need to dispose of effluent are some of the most viable remaining options available to the City to reduce potable water consumption.

Future Demand & Level Of Service:

Table IV-1 outlines potable water needs for the City of Lakeland through 2020. The level of service standard is not to exceed 150 gpd per capita as adopted by the City in 2000 and reiterated in 2003 as a Special Condition in the existing Water Use Permit for an agency within the Southern Water Use Caution Area (SWUCA). This requirement of 150 gpd/capita is consistent with the Public Supply guideline for per capita water use as

published in the Southwest Florida Water Management District's SWUCA II Rules adopted January 2007 in the "Basis of Review for Water Use Permit Applications", (Water Use Permit Information Manual), Section 3.6. and Section 8, page 114, of the SWFWMD Southern Water Use Caution Area (SWUCA) Recovery Strategy, March 2006 Final Report.

It is important to recognize that the minimum level of service standard is a standard used to indicate the minimum, not maximum, volume of water that the City agrees to provide to a user on a daily basis. The level of service is needed to plan capital facility capacity needs for Lakeland's potable water service system. Level of service, then, is needed to ensure an adequate water supply to new users needing to connect to the system as well as for current users. Water consumption is how much is actually used (drunk, flushed or otherwise consumed) by those receiving the water. Clearly, while water consumption and level of service are affected by each other, they are not the same. Therefore, water consumption targets can and should be separated from level of service standards.

It is also very important to recognize that Lakeland's level of service for potable water addresses both residential and non-residential consumption needs. Non-residential water use is about 23 percent of total water sales and residential comprises about 63 percent. The Lakeland Water Department indicates that, using SWUCA methodology to calculate current per capita water use as per the 2006 Southwest Florida Water Management District's "Public Supply Per Capita Water Use Survey" (Form A), after subtracting significant non-residential water users' volumes, **the per capita consumption was about 138 gpd/capita for customers of the Lakeland Water Service Area** (includes customers outside the City limits).

Table IV-1 projects only the needs of the incorporated area of the City. This does look at population driven water needs but using a per capita demand figure that is higher than the actual demand per person; that is, the 150 GPD is intended to estimate non-residential potable water needs as well as residential needs.

**TABLE IV-1
PROJECTED WATER NEEDS: 2000- 2020
CITY OF LAKELAND CORPORATE LIMITS**

YEAR	POPULATION	PROJECTED DAILY DEMAND (GPD/CAPITA)	TOTAL DAILY DEMAND (MGD)
2005	89,562	150	13.4
2010	98,000	150	14.7
2015	107,000	150	16.1
2020	112,000	150	16.8

Source: City of Lakeland, Community Development Department, 2006.

Table IV-2 outlines residential potable water demand for the anticipated Lakeland Water Service Area through 2020. Since the water service area for the Water Department and

the planning area for the Comprehensive Plan are not the same, the service area population projections from the City of Lakeland, Department of Water Utilities do not match planning area projections. The Water Department's calculations for the Lakeland Water Service Area include the total water use (residential and non-residential) projections and look at water losses and export water.

The projections for the Lakeland Water Service Area were arrived at through a process of averaging several formal forecast methodologies including that used by the SWFWMD for its ***Regional Water Supply Plan or RWSP*** as adopted in November 2006. City water pumping data and per capita demand for year 2007 reflects actual data for that year. The City estimates also considered water losses and water exports. These figures correspond to the accepted water management district methodology for calculating water data.

For projection years of 2010, 2015 and 2020 estimates were made using BEBR-based population projection methodologies and arriving at more conservative (i.e., lower) population projections than those found in the adopted SWFWMD RWSP. For future year estimates, the City used the maximum value for per capita as allowed in the designated Southern Water Use Caution Area or SWUCA to understand and be prepared for the worst case scenario. Per capita values can vary widely year to year depending on rainfall amounts. However, the City fully intends to continue its conservation and re-use strategies as discussed herein which should continue to lower our actual per capita value.

**TABLE IV-2
AVERAGE AND PEAK WATER USE PROJECTIONS: 2007-2020
LAKELAND WATER SERVICE AREA**

YEAR	POPULATION	ESTIMATED PER CAPITA DEMAND	INITIAL AVERAGE ANNUAL MGD	EXPORTED WATER & TREATMENT LOSSES	TOTAL PUMPING ANNUAL MGD	PEAK MONTH MGD
2007	180,081	133.14	23.98	0.743	24.72	29.39
2010	189,051	150	28.36	0.700	29.06	34.87
2015	205,690	150	30.85	0.700	31.55	37.86
2020	222,750	150	33.41	0.700	34.11	40.94

Source: City of Lakeland, Water Utilities Department, 2008.

Additional supporting data is found in Table IV-3 and outlines the potable water demand for all types of users, residential and non-residential, municipal, electric, resales and annual water losses. This data reveals a higher than average non-residential water demand and a lower than average water loss experience.

**TABLE IV-3
ESTIMATED WATER USE BY ACCOUNT TYPE
LAKELAND WATER SERVICE AREA**

ACCOUNT TYPE		Average # of Customer Accounts	Water Sales Per Year (1000 Gallons)	% Sales
RESIDENTIAL	Inside	27,339	3,799,606	40.05%
	Outside	18,273	2,185,795	23.04%
	TOTAL	45,612	5,985,401	63.09%
NON-RESIDENTIAL	Inside	4,136	1,788,683	18.85%
	Outside	1,576	392,183	4.13%
	TOTAL	5,712	2,180,866	22.99%
SALES FOR RESALE	Polk County	5	110,139	1.16%
	Polk County Standby	3	945	0.01%
	Skyview Utilities	6	55,145	0.06%
	Aqua Source Utilities	2	47,556	0.50%
	Auburndale Standby	1	2,658	0.03%
	Plant City Standby	2	36,146	0.38%
	TOTAL	19	252,589	2.66%
MUNICIPAL	TOTAL	527	285,453	3.01%
UTILITY USES & LOSSES (Not billed)			711,063	7.49%
ELECTRIC DEPT.	Larsen Plant	4	30,324	0.32%
	McIntosh Plant	4	26,503	0.28%
	All Other	39	14,421	0.15%
	TOTAL	47	71,248	0.75%
TOTAL CUSTOMERS		51,917	9,486,620	

Source: City of Lakeland Water Utilities Statistics Fiscal Year 2005-2006.

The residential use, 63%, and non-residential use, 23%, total 86% of all water sales within the water service area. Other uses besides Sales for Resale (3%) are relatively minor. Water losses consist of water used for things like fighting fires, flushing new utility lines for subdivisions or businesses under construction, unauthorized use, system leaks, and other losses. Water losses average about 7.5% with anything under 10% considered “good” performance for a utility (the industry norm is approximately 15%).

Probably one of the most important things to happen to water planning has been the need to account for not only normal or incremental water customer growth based on historical trends and Bureau of Economic and Business Research or BEBR projection type forecasts, but also the need to account for growth-management based development commitments. As local governments make commitments to land development projects at the time of concurrency, which is typically at time of site plan or plat, prior to building permit approval, they have had to reserve and track trips on roadway segments. They now also have to reserve estimated allocations for potable water, per Senate Bill 360, passed in 2005 by the Florida Legislature. This means local governments must track potable water amounts that are committed to both residential and non-residential projects that are typically at the engineering plan approval stage. Where the new commitment is for an unexpectedly large development such as a

Development of Regional Impact or DRI, the water demand will likely exceed anything projected in annual growth estimates based solely on historical trends which BEBR's estimates tend to produce. As the estimated potable water demands for concurrency level projects are totaled, that total represents the "committed" water flow, not yet being pumped at the City's water treatment plants. Typically these committed flows do not represent or include irrigation needs; due to the constrained nature of water resources, the City asks each developer to make every effort to utilize an alternate water source for irrigation needs and to phase development wherever possible.

The City Water Utility receives new water requests weekly within its water service territory, i.e., the geographic service area within the City and a portion of the unincorporated area. Thus, point in time committed flows do not represent all growth demands. In fact, the City had a growing waiting list for water requests above and beyond the list of committed water requests due to its delayed 2004 water use permit renewal issues, reinforcing the point that incremental growth is continuous. Normal population growth, added to normal non-residential/business growth, accounts for the incremental growth that is the subject of the typical projection methodology recognized by the Water Management District and University of Florida's Bureau of Economic and Business Research (BEBR). Therefore, our Water Utility staff made projections for normal growth using this accepted methodology. However, committed capacity for large, new projects may need to be added to this normal incremental growth projection since it may exceed historical trend projections. This is similar to the methodology used for many years in transportation planning where modelers trying to project future roadway demands consider existing road capacity minus reserved trips and projected annual (incremental) estimated growth to determine available capacity. Similarly, water projections must consider at least three factors to ascertain future demand for the planning period:

1. existing demand (average flows);
2. reserved or committed demand; and
3. projected annual demand (from incremental growth).

City Water Permit: For the 1990-2000 period, the City of Lakeland had a consumptive use permit for the Northwest and Northeast Wellfield allowing withdrawal of an average daily flow of 28.03 MGD; historically some portion of this total was technically allowed to be withdrawn from the Northeast Wellfield. The maximum design capacity of the Thomas B. Williams Treatment Plant is 51 MGD. The maximum design capacity of the C. Wayne Combee Treatment Plant is 8 MGD.

In March 2008, the SWFWMD Governing Board approved a new Water Use Permit for the City of Lakeland that reflected findings from a January 2008 judicial proceeding (Division of Administrative Hearings Case No. 07-564.) The new water use permit issued by the SWFWMD authorized the City to pump 4 MGD from the Northeast Wellfield and 28 MGD from the Northwest Wellfield, i.e. for a total of up to 32.02 MGD withdrawals. However, the March 2008 WUP only allows for a total of 30.2 MGD and is only good through year 2014. The SWFWMD March 2008-issued water use permit for these the City's two well fields did not address the potential to also utilize a groundwater

well that is located at the City's Combee Water Treatment Plant and which is estimated to be capable of providing at least 3 MGD of water.

The City of Lakeland will continue to work with the SWFWMD to pursue adequate water supply resources to meet the Water Service Area's long term needs. As required by Florida Statute, this Potable Water Supply Sub-Element must also address water facility capital needs for a 10 year period; see Tables IV-4 through IV-8.

10-Year Water Supply Plan

The City of Lakeland's 10-Year Water Supply Plan is a capital plan for developing water supplies for long-term demand. It identifies future capital projects and programs that are feasible which include the City's conservation strategy. Currently, the plan's primary focus is reuse and conservation.

Prior to adopting the Water Supply Plan the City has invested significant resources over the past 20 years to ensure sufficient water supply for residents and customers with in the City water service area. The Northeast Wellfield and the C. W. Combee Water Treatment Plant have been developed at a total cost of \$25.91 million and have been operational since 2005. The C.W. Combee Water Plant has a total design capacity of 8 million gallons per day. Table IV-4 outlines the City's investment in potable water supply from 1989 to 2005.

**TABLE IV-4
POTABLE WATER SUPPLY PROJECTS 1989-2005**

Project	Date Completed	Cost
Acquisition of NE Well Field Property	1989	\$2.24 Million
Drilling of NE Well Field and setting casings	1989	\$0.6 Million
Acquisition of C. W. Combee Water Treatment Plant Property	2000	\$0.574 Million
Pipe installation from NE Well Field to C.W. Combee Water Treatment Plant	2005	\$3.3 Million
Development/Construction of NE Well Field and C. W. Combee Water Treatment Plant	2005	\$19.2 Million
Total Cost		\$25.91 Million

Source: COL Water Department, 2007.

The Water Supply Plan currently has scheduled potable water projects to expand and upgrade the existing system. To provide new capacity for future demand additional production wells, expansion and upgrades to the C. W. Combee Water Treatment Plant are planned. The location of the new production wells is not yet determined, but if permitted by SWFWMD will be south of the Northeast wellfield. The water management district is shifting its focus to alternative water sources and encouraging local governments that have the option to do the same pursuant to the 2006 Regional Water

Supply Plan. At this time the City of Lakeland is studying the feasibility of alternative water sources. Table IV-5 outlines the 10-Year Water Supply Plan's potable water capital improvement schedule by fiscal year.

The following is a summary of each of the 10-Year Water Supply Plan's potable water capital projects:

- **New Production Wells** – Future increased demands for water may require development of new production well sites should new ground water sources be permitted. The Administrative Law Judge in DOAH Case No. 07-564 and the Governing Board of the Southwest Florida Water Management District have both endorsed the existing Combee production wellfield to be utilized to meet future water demands.
- **Northeast Plant Upgrade(CW Combee WTP)** – By 2015, most of the equipment for the Combee WTP will be 10 years old and some major items will be in need of upgrades. This equipment will be critical to the plant operation: i.e., switch gear, starters, generators, and chemical systems.
- **Northeast Plant Expansion (CW Combee WTP)** – Major construction project to expand the total capacity of the 9.0 MGD WTP to 18.0 MGD. The existing “footprint” of the WTP allows for an additional High Service Pump, an additional Transfer Pump, an additional Softening Unit, a Higher Filter Rating, and perhaps an additional 5.0 MG Ground Storage Tank. This project is to be linked with new production wells mentioned above.

**TABLE IV-5
POTABLE WATER SUPPLY PROJECTS**

PROJECT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
New Production Wells			500,000	500,000						
Northeast Plant Upgrade (C.W. Combee WTP)								100,000		
Northeast Plant Expansion (C.W. Combee WTP)			800,000	2,225,000	2,225,000					
TOTAL	0	0	1,300,000	2,725,000	2,225,000	0	0	100,000	0	0

Source: COL Water Utilities Department, 2007.

ALTERNATIVE WATER SUPPLY

In addition to the potable water supply projects the efficient utilization of wastewater will play an important role in our overall water supply. As with increased demand for potable water there will be an increase in wastewater quantities that will be available for water reuse once such a system is implemented. Table IV-6 outlines wastewater

projects included in the City's Water Supply Plan 10-Year Schedule of Projects by fiscal year.

The following is a summary of each of the 10-Year Water Supply Plan's wastewater capital projects related to potential water reuse, i.e., **potential reclaimed water projects**:

- **English Oaks** — The southwest portion of the wastewater service territory is deficient in collection or pipeline capacity. The City is actively designing and will be constructing major force mains and pump lift stations by the end 2009. Due to the transmission line availability delay, growth in this area was also delayed. This was fortuitous in that the County had approached the City regarding a potential cooperative for accepting 2 MGD or so of their wastewater effluent flows at the City's effluent wetlands site on S.R. 60. The City has also commissioned a feasibility study to evaluate establishing a reclaimed water system utilizing these excess effluent flows in dry periods to meet irrigation needs in one of the City's highest growth sectors (SW Lakeland.)
 - **English Oaks Booster Station** – An integral component of serving the southwest territory with new force mains is the addition of a high volume booster station by 2009. As opposed to conventional lift stations, the booster station is an in-line pumping station.
- **West Lakeland Waste Load Reduction Facility** – The Glendale WWTP has reached its designed treatment capacity for high strength BOD waste. The most cost effective solution is to remove 30% of the high strength waste and treating it before it reaches Glendale. By constructing the West Lakeland Waste Load Reduction Facility by 2009 and treating the waste, Glendale will be able to accept new customers. Additional effluent flows may assist in future reclaimed water project potential and/or assist in meeting growing cooling plant needs at the City's electric power plant complexes.

**TABLE IV-6
WASTEWATER RE-USE RELATED PROJECTS**

PROJECT	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
West Lakeland Facility		\$17,000,000								
English Oaks Force Mains	\$4,000,000	\$12,000,000								
English Oaks Booster		\$7,000,000								

Source: COL Water Department, 2007.

To meet State and Water Management District requirements to identify and plan for water supply alternatives to future ground water withdrawal *beyond 2014* (the end date of the city's Water Use Permit), the City of Lakeland is actively pursuing the following potential alternative water supply projects and conservation programs which are described in more detail in Support Document IV-Four (*Response letter to SWFWMD RWSP*), found in the Technical Support Document:

- **Polk County Reuse Cooperative** - Polk County plans to expand its Imperial Lakes wastewater treatment plant by 2.0 MGD and has reached an agreement

with the City of Lakeland to utilize Lakeland's wetlands system to discharge to the Alafia River. Thus, County effluent flows not used by its customers for irrigation during wet weather can be discharged through the wetland system. In addition, Polk County has indicated it would commit a portion of that projected reuse water to the City of Lakeland to form a reuse cooperative and provide alternative water for lawn irrigation demands for residential developments located within the southwest portion of the City of Lakeland's service territory. A conceptual engineering study indicated this project was feasible at a capital cost of approximately \$5,000,000.

However, Polk County and the City of Lakeland are also interested in the concept of constructing a reservoir to store the wet weather excess reuse for dry weather utilization instead of discharging to the Alafia. The reservoir would be constructed on City of Lakeland property, (wetlands) for maximum flexibility.

Both projects could be feasible; an engineering phase has begun to quantify size of reservoir, location of facilities, pipe sizes, routes, construction costs, etc. Another report is expected by end of 2008.

Implementation efforts for the above projects could possibly occur between 2010 and 2012 if funding is available. The City has determined that the projects are not eligible for State Revolving Loan funds typically used for many wastewater projects. Thus, another source of funding or funding partnerships would be required

- **City of Mulberry Reuse Cooperative** - The City of Mulberry is located adjacent to Polk County's Imperial Lakes reuse facilities but remote from the City of Lakeland's wetlands. Mulberry plans to expand its wastewater treatment, but has been directed by FDEP to eliminate its discharge to the Alafia River. Mulberry's reuse could then be included in the Polk County Reuse Cooperative project.
- **Auburndale Reuse Cooperative** - The City of Auburndale plans to expand its wastewater treatment capacity by 1 – 3 MGD, but is interested in a beneficial use instead of land application via a spray field located north of the city.

The Williams Holding Company is developing a large mixed-use development of regional impact and has donated land for the new USF / I-4 campus which will develop independently but adjacent to the DRI. The Williams Company has proposed accommodating Auburndale's reuse for its irrigation demands. The proposal is to have Auburndale supply the reuse water to the City of Lakeland, which would own and maintain the distribution system. The City would then provide the reuse flow to Williams/USF for irrigation purposes on their respective properties off-setting the use of ground water for lawn irrigation demand from both the Williams development and the USF campus. A feasibility study has begun and the project could be implemented between 2010 and 2012, if it proves

economically feasible and if approved by the governing agencies (FDEP and SWFWMD.)

- **Mosaic Water Supply** - Hillsborough County Utilities has plans to expand their wastewater treatment system but is concerned with effluent disposal through FDEP permitting. Mosaic Industries has several large ponds southwest of Lakeland that are the result of phosphate mining.

Mosaic also has a large quantity of permitted ground water used in their mining operations. Mosaic and Hillsborough County are investigating the feasibility of accepting Hillsborough's effluent into the Mosaic ponds and storing it for Mosaic's mining operations or use by Hines Energy Facility. The available ground water could then be treated and used for a regional water supply.

The City of Lakeland, Polk County Utilities, City of Mulberry and City of Bartow have met with Mosaic and are interested in this concept. Interest is based upon Mosaic selling ground water to a cooperative which would then treat and distribute the treated water to member utilities. This concept keeps the current permitted, acceptable withdrawal impacts within the same basin and eliminates the District's concern of "relocating" capacity but accounting for environmental impacts at the new location.

Anticipated implementation, if financially feasible, would be between 2013 and 2020.

Table IV-7 outlines the proposed scheduling and estimated cost of each of the alternative water supply projects.

**TABLE IV-7
PENDING ALTERNATIVE WATER SUPPLY PROJECTS**

PROJECT	ESTIMATED IMPLEMENTATION DATE	ESTIMATED COST	STATUS
SW Lakeland Reuse Line System (Polk County Cooperative)	2010-2012	5,000,000	Engineering Study Underway
Effluent Wetland System Reuse (Polk County/Mulberry Cooperative)	2010-2012	To be determined	
Auburndale Reuse Tie-in	2013-2020	\$200,000	Allowed per Williams DRI &USF agreements with COL
Mosaic Line Tie-in	2009	To be determined	SWFWMD discussing with Mosaic & other parties

Source: COL Water Utilities Department, 2007.

Table IV-8 outlines the programmed and estimated funding of each of the City's water conservation programs.

**TABLE IV-8
CONSERVATION PROGRAMS FUNDING**

CONSERVATION PROGRAMS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Co-funded/ Rebate and Retrofit Project	645,000	624,000	624,000	624,000	624,000	624,000	624,000			
Park Central Irrigation System Control			50,000						50,000	
Leak/ Theft Detection	105,400	105,400	55,400	55,400	55,400	55,400	55,400	55,400	55,400	55,400
TOTAL	750,400	729,400	679,400	679,400	679,400	679,400	679,400	55,400	55,400	55,400

Source: COL Water Utilities Dept.; Parks Dept., 2007

Overall, limited options for alternative water supply exist within the Central Florida inland region and particularly within the Polk County area and Lakeland. As a non-coastal area, desalination of ocean or salt water is not an option. Aquifer storage recovery, ASR, as a water supply technique involves storage of potable or treated effluent water types underground. This technique is still somewhat experimental and often cost-prohibitive and may be subject to some environmental concern.

Treated wastewater, or effluent, is limited as an alternative for Lakeland due to substantial commitment of that effluent flow to the Lakeland Electric power plant system; see Table IV-8 below. The primary option to re-use water for power plant cooling is groundwater; therefore, employing treated or reclaimed water as a substitute is, in the City's opinion, a very valid water conservation strategy. The Hines Energy complex in south Polk County has historically sought reuse water from several municipalities in the area for this same reason. Lakeland Electric is the primary source for electrical power supply for all of the City and Metro Lakeland which includes portions of unincorporated Polk County, and provides some power to a larger, regional municipal grid system so the local reuse water that cools the power plant is utilized to help meet local and regional energy demands. Illustration IV-4 and Table IV-9 (below) demonstrate the Lakeland Electric service area and the projected population for the same. Other effluent flows are sent to the City's artificial wetlands located off of S.R. 60, south of Lakeland, which discharges into the Alafia River system. That discharge augments the flows/volumes of the Alafia, which is used by Tampa Bay Water Authority as one of its potable water sources. Therefore, the City's reuse water serves a larger regional water need already.

**TABLE IV-9
LAKELAND EFFLUENT USES**

	Reuse Water to McIntosh Power Plant				Treated WW Sent to Wetlands						Wetlands Effluent Disposal to Alafia River		
MONTH	Glendale	Northside	TOTAL		Glendale WWTP		Polk County Discharge Intertie		TOTAL		TOTAL		
	WWTP	WWTP	Monthly	DAY	Monthly	AVG DAY	Monthly	DAY	Monthly	DAY	Monthly	#	AVG DAY
	(MG)	(MG)	(MG)	(MGD)	(MG)	(MGD)	(MG)	(MGD)	(MG)	(MGD)	(MG)	Days	(MGD)
Oct-06	72.85	98.45	171.30	5.53	204.82	6.607	3.57	0.12	208.39	6.72	0.00	31	0.00
Nov-06	36.14	94.97	131.11	4.37	211.38	7.046	21.62	0.72	233.00	7.77	0.00	30	0.00
Dec-06	39.87	96.84	136.71	4.41	232.93	7.514	24.78	0.80	257.71	8.31	0.00	31	0.00
Jan-07	39.45	108.26	147.71	4.76	236.00	7.613	21.58	0.70	257.58	8.31	0.00	31	0.00
Feb-07	55.62	94.27	149.89	5.35	212.97	7.606	19.30	0.69	232.27	8.30	320.54	28	11.45
Mar-07	82.61	90.06	172.67	5.57	197.22	6.362	9.48	0.31	206.70	6.67	420.73	31	13.57
Apr-07	56.51	54.50	111.01	3.70	233.94	7.798	0.00	0.00	233.94	7.80	0.00	30	0.00
May-07	37.50	74.80	112.30	3.62	228.50	7.371	0.12	0.00	228.62	7.37	0.00	31	0.00
Jun-07	90.45	98.56	189.01	6.30	178.23	5.941	6.63	0.22	184.86	6.16	0.00	30	0.00
Jul-07	107.34	100.88	208.22	6.72	166.66	5.376	22.97	0.74	189.63	6.12	0.00	31	0.00
Aug-07	123.35	100.71	224.06	7.23	174.69	5.635	10.16	0.33	184.85	5.96	141.52	31	4.57
Sep-07	112.24	100.61	212.85	7.10	188.70	6.290	23.09	0.77	211.79	7.06	78.36	30	2.61
FY Totals	853.93	1,112.91	1,966.84	5.39	2,466.04	6.756	163.30	0.45	2,629.34	7.20	961.15	365	2.63

Source: COL Water Utilities Department, 2007.

Illustration IV-4: Lakeland Electric Service Area

**TABLE IV-10
LAKELAND ELECTRIC SERVICE AREA
2020 PROJECTED POPULATION**

Year	Population
2007	258,681
2008	262,085
2009	266,163
2010	270,292
2011	273,989
2012	277,585
2013	281,112
2014	284,750
2015	288,313
2016	291,563
2017	294,718
2018	297,875
2019	301,087
2020	304,326

Source: Lakeland Electric, 2006

The chief alternative or option for the City of Lakeland in regard to water supply is that of additional water conservation measures, rules and programs. Please see the discussion of the City's Water Conservation Plan as found in the Conservation Element of the City's Comprehensive Plan and in its Technical Support Document, Appendix VI-Two.

The City and/or Water Utility participates in "intergovernmental coordination" dealing with water supply and resource issues. It is part of the Heartland Alliance, a non-authority made up of entities within Polk, Highlands, Hardee, and Desoto Counties. A study was performed on behalf of this alliance to identify future water demands and possible resources to meet those demands. The Utility has a presence at the Polk County Water Policy Advisory Committee meetings as well as the Public Supply Advisory Committee of the Southwest Florida Water Management District. A water official regularly attends the Basin Board meetings of the Water Management District.

The Governor has requested the three water management districts which control the Central Florida region begin to collectively organize their regulations to address the growth and future water demands of the Central Florida area. The Central Florida Coordination Area (CFCA) has been identified by these Water Management Districts. They are currently in the process of developing proposed rules which would restrict access to groundwater for demands past the year 2013. So far, water users within Polk County and a small portion of Lake County are the only ones within the SWFWMD proposed to come under CFCA jurisdiction. However, as part of drafting the proposed rules, it has been determined that existing areas in Polk County within the Southern Water Use Caution Area (SWUCA) would not be subject to the CFCA rules.

Wellfield Protection

The area around the Northwest Wellfield is highly urbanized. Due to this high level of urbanization and proximity to Interstate 4, establishing sufficient zones of protection to prevent future contamination has become increasingly difficult. While the City owns the land containing each of the wells, the surrounding site is part of a platted business park. The individual platted lots are approximately 350 feet in depth. The City has established in its land development regulations a 500-foot setback and a requirement for a monitoring plan for all businesses with restricted-use operating permits to operate within the protection zone. This has become the City's primary tool for protection of the wellfield. The zones of protection for the Northwest Wellfield are shown in Illustration IV-5.

In early 1989, following completion of hydrological studies and SWFWMD approval of a water use permit, the City of Lakeland purchased an 883-acre tract located approximately one mile north of the intersection of Interstate 4 and State Road 33. The Northeast Wellfield site, depicted in Illustration IV-5a, consists mostly of pasture and wetland areas. There are five wells at this site. Use of the Northeast Wellfield has required funding for transmission lines, pumps, and an off-site water treatment plant. This funding had been budgeted in the City's capital improvements plan (CIP) of the Capital Improvements Element. This water treatment plant and wellfield is now constructed and operational. These new facilities cost a total of \$31,000,000. The need for the Northeast Wellfield had been tempered over the last decade by water conservation/reduced pumpage as encouraged by regulations for the Southern Water Use Caution Area (SWUCA). Use of the Northeast Wellfield together with the Northwest Wellfield basically requires a cooperative effort to not exceed the requirements of the City's combined water use permit for the two wellfields.

The Northeast wellfield has historically been permitted to provide up to 9 MGD average daily flow and 16 MGD maximum daily flow. Aquifer testing of the wellfield site indicated that such flows would result in little drawdown and minimal impacts to other uses or wetland systems in the area. The largest concern about the wellfield operation was the potential for adverse impacts to the wetland areas at the site. The SWFWMD Water Use Permit therefore has required that the City monitor the health of the wetland areas and mitigate any adverse effects of wellfield operations. A detailed environmental monitoring and aquifer mitigation plan was prepared to address this concern. The City submits to the District monthly reports regarding aquifer levels, and biannual reports of infrared photographic data regarding the vegetative health of the wetlands. Prior to its 2003 water use permit renewal request in which the City again sought to permit the NE Wellfield, the City performed additional hydrological impact analyses based upon the use of the wellfield. These analyses indicated that there would be minimal impact on relevant wetland systems due to drawdown; thus the 2008 permit authorizes 4.0 MGD average annual pumpage from the Northeast Wellfield in addition to 28.03 MGD drawn from the Northwest Wellfield, for a total of 30.2 MGD combined.

The addition of the Northeast Wellfield to the City's water supply system will help ensure that the water demands of the service area can be met for many years, and add a large measure of ensured reliability by acting as a back-up wellfield should the City need to reduce pumpage at the Northwest Wellfield or deal with any contamination issues. The NE Well Field is very rural compared to the NW Well Field which is located near a large urban population and businesses. In an era of threats of acts of bioterrorism, it is in the interest of the City's approximate 52,000 customer accounts and more than 170,000 water service population to have more than one single area of aggregated water wells and more than one treatment facility. In addition, the rural nature of the site will help ensure that the wellfield is guarded against potential contaminants. A safe, reliable water supply is essential for service to the growing population in the water service area.

Illustration IV-5: Northwest Wellfield and Zones of Protection

Illustration IV-5a: Northeast Wellfield and Zones of Protection

WASTEWATER

Wastewater is defined as the waste carried by water from domestic, commercial or industrial sources. Although some wastewater may be drained directly onto the ground (washing cars, pressure cleaning buildings, etc.), generally, wastewater must be treated before its release into the environment. Wastewater is treated in the Lakeland Planning Area by one of the subregional treatment plants, mid-size package treatment plants, or individual on-site septic tanks.

EXISTING FACILITIES AND PROPORTIONAL SHARE

Per 1997 Wastewater Division records, about 10% of wastewater demand was attributable to residential and commercial users outside the City limits, while the remaining 90% of demand originated from within the City of Lakeland. Service to the unincorporated area is not expected to significantly increase due to Polk County's planned northwest regional wastewater plant and due to continued annexation by the City. Voluntary annexation agreements are required for all potential customers of the City wastewater system as part of the overall wastewater service agreement. Once the City limits become contiguous to the customer's property, the City has the option of requiring the customer to annex into the City.

Public Facilities The City of Lakeland is served by two subregional treatment plants for wastewater service: the W. Carl Dicks Water Reclamation Facility, formerly known as the Glendale Treatment Plant, and the Northside Wastewater Treatment Plant (WWTP). The Carl Dicks Facility is located on Glendale St. and the Northside WWTP is located near the McIntosh Power Plant on the northeast side of Lake Parker. In addition, some septic systems continue to function in areas of Lakeland, including areas developed prior to the availability of centralized wastewater service. Illustration IV-6 depicts the 1997 existing wastewater facilities and service area locations.

Private Facilities At the time of Plan Adoption in 1991 there were about 50 package treatment plants outside the City limits in the Lakeland Area. According to a 1994 update to the City's Wastewater Master Plan (201 Facility Plan) done by Post, Buckley, Schuh & Jernigan, Inc., of the 50 package treatment plants outside the City limits and within the Comprehensive Planning Area serving a mix of land uses, 34 of the package plants were within the utility facilities planning area. By late 1998 there were only about 29 of the original 35 facilities listed in PBS&J report (Appendix IV-Two: Wastewater-Private Wastewater Treatment Facilities Within the Lakeland Facilities Planning Area, found in the Technical Support Document) which had not yet hooked into the City's system. Some of the package wastewater treatment facilities still in operation serve shopping centers, subdivisions, and other mid-size developments. One reason package systems desire to connect to the City system is to avoid fines by the FDEP if the system is experiencing some type of failure. For residential subdivisions on package plant systems, the City has had a standard policy to not accept new customers from such systems unless, at a minimum: a) impact fees for those customers are paid, and b) sewer extensions from the plant to the City system and a pumping station are constructed at no cost to the City.

Service Area As can be seen from Illustration IV-6, an expansion of the wastewater service area occurred during the 1990s primarily to the west and north of the Lakeland Linder Regional Airport and to the north and northeast of Lake Gibson. Although some of the wastewater service area is serving the unincorporated County in these areas, the expansion of the City limits has occurred in these same general directions due to industrial growth in the west Lakeland area and mixed types of growth in the north/northeast Lakeland area.

The wastewater service planning area in Illustration IV-6 appears to be well outside the actual service areas on the east and the northwest. However, the planning area boundary actually comprises the utility planning area boundary for both water and wastewater services. It is a negotiated boundary contained in an interlocal agreement executed in April 1993 with Polk County (refer to Illustration VIII-5 in the Intergovernmental Coordination Element).

While a few of the major trunk lines for the W. Carl Dicks Facility are shown on the service area map, most distribution lines are not shown to reduce clutter. Wastewater Division staff report as of the end of 1998 that approximately 265 miles of gravity sewer (between 6 and 48 inches) and 58 miles of force main (between 4 and 24 inches) comprise the Lakeland collection system. About 116 wastewater pump stations are located throughout the wastewater service area and, as can be seen in Illustration IV-6, the W. Carl Dicks WWTP is linked by pipeline to an artificial wetlands site which treats effluent from the wastewater plant. This wetlands site is located on the north side of S.R. 60, east of Mulberry.

Plant Capacity The City's two wastewater treatment plants (also referred to as water reclamation facilities) have the following capacities: the W. Carl Dicks Facility was expanded in 1998 to a permitted capacity of 13.7 million gallons per day (MGD) annual average flow (AADF). The Northside Treatment Plant is permitted for up to 8.0 MGD, AADF. As of April 1997, the annual average flows for the W. Carl Dicks and Northside treatment plants were 7.88 MGD and 2.66 MGD respectively; however, these numbers increased to 9.73 MGD and 3.54 MGD in 1998 due to heavier than normal rainfall in this region. The capacity expansions of both plants are expected to handle the anticipated growth in service demands through at least 2008. Numerically the City has a total plant capacity good for the next 20 years. However, the City could reach the limit for organic loading at the W. Carl Dicks facility by 2006. Trunk capacities will depend on the actual rate and location of new development and redevelopment. The expansion of capacity at the W. Carl Dicks facility will help to address temporary higher flows resulting from infiltration during unusually wet years, such as the 3rd quarter of 1994 through the 3rd quarter of 1996 when an average of 2 MGD or more of infiltration was added to base sewer flow. In addition, the City's sewer rehabilitation program has been accelerated to better control infiltration (of stormwater) into lines and manholes.

T-01-004
Ordinance #4292
Effective 12/27/2001

**ILLUSTRATION IV-6
CITY OF LAKE LAND
WASTEWATER FACILITIES AND SERVICE AREAS**

Artificial Wetlands Capacity The City's Artificial Wetlands facility located east of Mulberry, south of Lakeland, began receiving treated effluent in 1987. The Wetlands are currently rated 20 MGD, AADF, and are permitted on a common NSPES permit with the W. Carl Dicks Plant. Annual average flow to the Wetlands is about 10 MGD and ranges between 8 and 11 MGD. The operating permit (together with the Dicks Plant) was renewed by the State in November 1998; the Wetlands are projected to have sufficient capacity through at least 2008.

FACILITY PERFORMANCE

The 1994 Post, Buckley, Schuh & Jernigan, Inc. report on the City's wastewater facilities listed the estimated population residency within the wastewater planning service area as 153,221 persons, served by a total flow of 15.32 MGD, or about 100 gpd/capita. The physical plants themselves are in excellent condition, both having undergone expansions that will take the expected life of the facilities out another 40 or more years (20 years for certain high speed equipment).

The data in Table IV-4, indicates that the overall performance of the W. Carl Dicks Water Reclamation Facility (formerly Glendale) and the Wetlands Effluent Treatment facility is very good. Performance indicators for the Northside Wastewater Treatment Plant, given in IV-5, also show positive performance in terms of staying within current design capacities as well as with the expanded capacity, once permitted.

**TABLE IV-4
W. CARL DICKS AND WETLANDS EFFLUENT TREATMENT FACILITIES**

INFLUENT FLOW		CONCENTRATION (mg/l)				POUNDS (lbs/day)			
	MGD	CBOD ₅	TSS	TN	TP	CBOD ₅	TSS	TN	TP
Annual Avg. 6/96-5/97	7.65					29,057	17,853	2164	559
6/96-5/97									
Max Month	8.81								
Max Day	11.55								
Max H	20.00								
PLANT EFFLUENT						335	351	890	333
Removal						28,722	17,502	1,274	226
% Removal						98.8%	98.0%	58.9%	40.4%
WETLAND EFFLUENT		1.35	3.21	1.01	3.45	51.1	121.4	38.2	130.5
Overall Removal						29,006	17,732	2,126	428
% Overall Removal						99.8%	99.3%	98.2%	76.7%
Permit Limitations		5.00	5.00	3.00	N/A				
PLANT DESIGN CAPACITY ⁽¹⁾									
Annual Avg.	10.8					24,770	16,663	3,742	
Max. Month	14.0					32,109	21,600	4,203	
% of Design Capacity									
Annual Avg.	70.8%					117.3%	107.7%	66.7%	
Max. Month	62.9%								
'97 PLANT EXPANSION DESIGN CAPACITY ⁽²⁾									
Annual Avg.	13.7					40,930	28,740	3,000	887
Max Month	18.5					44,478	31,420	3,280	970
Max Day	20.3								
Max Hour	29.0								
% of Expanded Design Capacity						71.0%	62.1%	72.1%	N/A

⁽¹⁾ April 1994 C.A.R. (p12) ⁽²⁾ Feb. 1, 1996 Process Design Calculations, Paul Bizier, Chastain Skillman

Source: City of Lakeland Wastewater Division, 1997.

**TABLE IV-5
NORTHSIDE TREATMENT FACILITY**

INFLUENT FLOW		CONCENTRATION (mg/l)				POUNDS (lbs/day)			
	MGD	CBOD ₅	TSS	TN	TP	CBOD ₅	TSS	TN	TP
Annual Avg. 6/96-5/97	2.63					4,512	5,036	701	134
6/96-5/97									
Max Month	2.92								
Max Day	3.57								
Max H	NA								
PLANT EFFLUENT						46	70	123	47
Removal						4,466	4,966	578	87
% Removal						99.0%	98.6%	82.5%	64.9%
WETLAND EFFLUENT						17.4	41.7	13.1	44.9
Overall Removal						4,495	4,994	688	89
% Overall Removal						99.6%	99.2%	98.1%	66.5%
Permit Limitations		5.00	5.00	3.00	N/A				
PLANT DESIGN CAPACITY ^(1,2,3)									
Annual Avg (solids)									
	6.25					15,638	13,018	3,284	
Annual Avg (liquids)	8.00					20,016	16,663	4,203	
Max Month	NA					24,770	16,663	3,742	
Peak Hr	24.0					32,109	21,600	4,203	
% of Design Capacity									
Annual Avg.	42.1%					28.9%	38.7%	21.3%	
⁽¹⁾ May '97 Operations and Maintenance Report, P.E.C. ⁽²⁾ Current operating permit is 8.00MGD ⁽³⁾ Expansion construction completed June 1996.									

Source: City of Lakeland Wastewater Division, 1997.

The indicators given in Tables IV-4 and IV-5 above are defined as follows:

CBOD = Carbonaceous Biological Oxygen Demand
TSS = Total Suspended Solids
TN = Total Nitrogen
TP = Total Phosphorus

LINE CAPACITY LIMITATIONS

Table IV-6 lists segments of the wastewater system which could reach full capacity by year 2008. Peak flow, the parameter which determines the capacity of sewers, has decreased rather than increased over the past 10 years, a consequence of significant sewer rehabilitation. Five segments, about 4% of the Western Trunk, will be more closely monitored for actual peak demand and to re-estimate Western Trunk system capacity. These segments could require capacity augmentation prior to 2008.

The Eastern Trunk will have adequate capacity in year 2000 and through to year 2008. The Northside sewers (Socrum Loop, Griffin Road 24" gravity trunk, and the 18"/21" Lakeland Hills gravity trunk) have reserve capacity beyond 2008. The West Lake Parker Drive gravity sewer, smaller than a trunk, is affected by infiltration. While some infiltration has been eliminated, more must be eliminated, or upsizing could become necessary before 2008. The US 98 system will also require monitoring due to the major capacity commitments added during 1997 and 1998.

**TABLE IV-6
WASTEWATER FACILITIES
WITH POTENTIAL CAPACITY LIMITATIONS**

PUMP STATIONS	FORCE MAINS	GRAVITY SEWERS
Publix	US 98 N	Western Trunk (portions)
Highland Hills	Eastside Village	West Lake Parker Drive
Tradewinds	Drane Field Road	
Lake Gibson	Griffin Road	
Bruce Street	Lakeland Harbor	
Oak Street	County Line Industrial	
Kennedy		

Source: City of Lakeland Wastewater Division, 1997.

The Publix, Highland Hills, and Tradewinds pump stations have been significantly expanded since 1997. Each was rebuilt as a triplex station, with initially only two pumps. Each could require installation of the third pump prior to 2008. Three other old stations (Lake Gibson, Bruce Street, and Oak Street) subject to greater than average infiltration are to be replaced by larger stations through funding in the City's 5 year Capital Improvement Budget (CIB) through fiscal year 2003. Numerous other stations are being replaced or rehabilitated through the CIB or through developer funding, such as the Kennedy station.

Force mains that have been replaced with larger capacity lines include Publix, Highland Hills, Tradewinds, US 98 N, Meadows, Villas, and part of the Drane Field Road system. While the Eastside Village, Drane Field Road 8"/10", and County Line force mains have significant reserve capacity, all are located in fringe areas which could experience unpredictable growth. Hence, all require monitoring. Existing City policy requires new development to fund expansions and extensions of the wastewater collection system directly necessitated by their currently planned development.

EFFLUENT REUSE

Between 1994 and 1998, approximately 3.6 MGD of the City's effluent was evaporated each year at the Macintosh Power Plant, on average. The City is evaluating the expansion of this power plant, and an increase in the amount of effluent consumption is expected with the addition of a new electric generation unit by 2001. Effluent reuse for cooling water is expected to increase up to 10 MGD by 2010. In addition, the City has opened formal discussions with another major power generator, and others, to consider the use of the City's available effluent.

ANALYSIS OF SOILS FOR USE OF SEPTIC SYSTEMS

Soils are part of a natural system which are not expected to have significantly changed from the time of the adopted Comprehensive Plan (see Illustration IV-7). Where development has occurred in the City, centralized wastewater service is usually a requirement; the City does not issue permits for septic systems or package plants. The Health Department does allow use of septic systems where wastewater service is "unavailable"/too far away and soil conditions are suitable for the septic system. Some

septic systems have been added through annexation of areas developed in the County but, according to Wastewater Division staff, these are widely scattered. Septic systems which have been annexed to date have generally operated well due to their location in areas which include well- to moderately well-drained soils. While a few of these septic systems have been removed on an individual system basis and connected to centralized sewer service, such connections are neither easy nor inexpensive. General location map Illustration IV-8 depicts the location of septic systems in the City. A detailed analysis of the suitability of the soil groups for septic systems was included in the original 1991 Comprehensive Plan and is now found in Appendix IV-Three: Septic Systems in the Technical Support Document.

ADOPTED LEVEL OF SERVICE

The City of Lakeland will provide wastewater service at levels of service which comply with all standards of the U.S. Environmental Protection Agency (EPA) and Florida Department of Environmental Protection (FDEP). In addition, system-wide wastewater collection and treatment will be sufficient to provide a minimum of 128 gallons per capita per day.

FUTURE CONDITIONS

A top priority of the City of Lakeland is to provide customers within the corporate limits with adequate capacity to meet wastewater collection and treatment demand. Once the needs of City residents are met, surplus capacity is made available to unincorporated areas within the sewer service area. In order to ensure the availability of adequate collection and treatment capacity to meet demand, projections must be made of the future service area population. In 1995, the City's wastewater utility planning area encompassed an estimated population of 153,221 with a portion of that currently receiving City service. Per capita collection and treatment demand is about 100 gpd for residential uses. For purposes of projecting future demand, the minimum level of service standard, which relates to the historical demand data, is multiplied by the population projections for Lakeland. Table IV-7 outlines anticipated wastewater collection and treatment demand for the City of Lakeland through 2010, excluding infiltration. The City typically provides service only within its corporate limits and extends beyond those limits only as part of an annexation agreement. The per capita demand figure used in Table IV-7 allows for commercial development in conjunction with population growth from residential development.

TABLE IV-7
WASTEWATER COLLECTION AND TREATMENT NEEDS: 2000 - 2010

YEAR	POPULATION	PER CAPITA DAILY DEMAND	TOTAL DAILY DEMAND
2000	82,613	128 gallons	10,574,464 gallons
2005	102,018	128 gallons	13,058,304 gallons
2010	111,233	128 gallons	14,237,824 gallons

Source: City of Lakeland, Community Development Department. 2002.

Illustration IV-7
Lakeland Area Soils

Illustration IV-8
Location of Septic Tanks

SOLID WASTE

BACKGROUND

Solid waste includes garbage, refuse, yard trash, clean debris, white goods, ashes, sludge or other discarded material which may be solid, liquid, semisolid or contained gaseous material. Hazardous waste is solid waste which, because of its quantity, concentration of physical, chemical or infectious characteristics may present a hazard to human health or the environment when improperly managed.

In 1988, the State of Florida passed a "Solid Waste" bill mandating the reduction of solid waste going into landfills, and mandating certain recycling requirements. Polk County has been assigned responsibility for implementing the State requirements. Because the City of Lakeland collects solid waste and disposes of it at either the City power plant burn facility or the County landfill, it too is involved in implementing the State requirements.

DISPOSAL METHODS

Solid waste disposal methods have drawn a great deal of attention due to the per capita growth of waste generated, the shortage of adequate new landfill sites and the contamination of groundwater supplies by landfill leachate. Disposal of wastes generated in the Lakeland Planning Area occurs in various ways. The primary method is to haul wastes to the McIntosh electric generating unit where burnable refuse is separated, shredded and used as fuel. Certain large items such as logs and tires are removed from the waste stream by hand. Metal objects are removed magnetically and sold to commercial recyclers, with further separation by air classification. Materials removed from the burnable waste stream which are not recycled are hauled to the North Central Landfill which is owned and operated by the Polk County, Environmental Services Division. Polk County provides solid waste disposal for the entire county, including the municipalities, using three Class I landfills. The County has determined that sufficient landfill space is available in the existing Class I North Central Landfill to meet projected demand through 2020, with a Phase II already built and having capacity through 2050. The County's Class III landfill (for construction debris and yardwaste) has capacity through at least 2015.

There have been no problems in terms of leachate contamination associated with the County landfills. As is true with all landfills, scavenging birds and odors are common, however, there is no residential development in the immediate proximity of any Polk County landfill. As a result, these are minimal problems. The siting of a new landfill is not necessary at this time as the existing facilities are adequate to accommodate projected demand through 2050.

EXISTING FACILITIES AND PROPORTIONAL CAPACITY

Public facilities: In 1997, the City of Lakeland Solid Waste Division used 14 rear packer trucks for 22 collection routes, handling residential collection three times per week (2 times/week for regular garbage and once/week for vegetative wastes which are composted). For commercial collection, the City had 9 front loader trucks for 7 collection routes. In 1996, the City had an annual average of 26,500 residential and 2,900 commercial accounts for solid waste collection.

Most solid waste collected by the City is taken to the City's McIntosh Power Plant Complex located on the northeast side of Lake Parker, where there is a refuse-derived fuel unit which burns the waste which is not recyclable. In 1996, of the total tonnage of solid waste collected in the City of Lakeland, approximately 44% was burned, 27% was recycled and 29% was sent to the Polk County North Central Landfill located on C.R. 540. There is not an assigned capacity for each jurisdiction using the County landfill. However, the existing County landfill is estimated to have adequate capacity to receive and handle solid wastes through at least the year 2020, with Phase II capacity through 2050.

Private facilities: In 1997 there were five private franchise providers of solid waste (haul) service in the Lakeland area: BFI, AAA, Waste Management, Florida Refuse, and Disposal Inc. Within the City limits, these services provide roll-off containers to collect construction site debris. However, they do not collect other/household garbage within the City. The City Solid Waste Division provides solid waste collection and disposal service for all areas inside the corporate limits. There is a landfill for construction and demolition debris located near Bartow called the Cedar Trail Landfill which is the primary disposal site for construction site waste and for vegetative debris which is composted (tipping fee \$13/ton). Yardwastes are also taken to Southern Softwoods, a privately-operated Class III landfill located east of Lakeland on Lasso Lane (charge \$6.66/ton). Tires are taken to the Wheelabrator facility located north of the County landfill on C.R. 540, for incineration (\$14/ton). In 1996, it is estimated that the Cedar Trail Landfill collected 168,625 tons of waste, not including yard wastes from the City (per BFI/Polk County Solid Waste information). Rate increases in 1997 paid for rising costs in the solid waste division for payroll/additional waste collectors, equipment maintenance, and landfill fees.

OTHER WASTES

The City does not handle hazardous waste disposal but does cooperate in advertising and helping to find a collection site for what is referred to as "Amnesty Day" collections where a local collection site is provided for a day, several times a year, for residents to bring hazardous wastes such as paint thinners and used oils. There is a central location for hazardous waste drop-off located at Polk County's North Central Landfill complex; this collection/drop-off area is open year-round. The County does not, however, treat or dispose of hazardous wastes; these wastes are transported to official disposal sites located out-of-state. Bio-hazardous (including infectious) wastes

generated at the Lakeland Regional Medical Center are incinerated on site; they estimate that they burn 12,500 tons per year of waste. BFI, Inc. also has an incineration site for bio-hazardous wastes, located in the Eaton Park area outside of Lakeland.

In 1997, a private, joint-venture operation (between Lakeland-based Discount Auto Parts and Salt Lake City-based Q. Lube) opened in north Lakeland (US 98 North) to collect and reclaim used oil, especially for car owners who change their own motor oil. Polk County has over 100 locations where residents can drop off used oil including auto parts stores, car dealers and service stations. Nevertheless, an estimated 60 percent of car owners have disposed up to 9.5 million gallons of used motor oil improperly each year in Florida, such as dumping it in the garbage or a ditch. One gallon of used oil can contaminate 1 million gallons of fresh water. Used motor oil which is collected at drop-off centers is mostly re-refined into new motor oil or reused as an industrial lubricant.

Wastewater treatment plant sludge from the City's two wastewater treatment plants is land applied on permitted agricultural lands; it does not go to either the McIntosh Plant or the County landfill. A December 1996 report stated that the City produced approximately 241 tons of sludge from its Northside Plant in 1996 and 1,315 tons of sludge from the W. Carl Dicks Plant. The sludge from the City's Airside Center package plant is sent to and treated at the W.C. Dicks Plant and is included in the volume figure for the W. Carl Dicks facility.

EXISTING CAPACITIES AND PERFORMANCE

Capacities & Current Demand: In 1996, 75,560 tons of solid waste was collected within Lakeland. According to the Solid Waste Division's records, 33,358 tons were burned at the McIntosh unit, 21,542 tons went to the Polk County North Central Landfill and the remaining approximate 20,539 tons was diverted (recycled or composted). Of the 75,560 total tons collected, 44,076 tons or 58% was derived from residential collection. With a 1996 City population estimate of 75,422 persons, the City service per capita for residential collection was 3.25 pounds per day, well below the minimum level of service standard of 5 pounds/capita/day for residential pick-up set in Policy 3.1D of the Comprehensive Plan. Total tonnage per day, including non-residential waste collected, was 207 tons. By 2010, at a total of about 5.4 pounds per capita level of service, City solid waste generation is estimated at about 167 tons per day, with seasonal population generating up to 205 tons/day. This includes non-residential waste generation, yardwastes, and other recyclables. The total which goes to the landfill will depend upon the performance of the RDF unit (amount burned) and the total recycled. At the City's Fairway Avenue site, street sweepings are separated and the sand portions are sent to the North Central landfill for use as daily cover. This is a unique program in the State and is done under an interlocal agreement with Polk County.

As stated earlier, the existing Polk County North Central landfill has adequate capacity for service through the year 2050. In 1996, County data indicates that the North Central Landfill received 385,000 tons of waste or 1,262 tons/day for that year (305 operational days). The total tonnage at all three County landfills was 469,700 tons in 1996, of which

the North Central Landfill absorbed 82%, with the remainder primarily absorbed by the Southeast landfill due to the closure of the Class I cell at the Northeast landfill (which still accepts Class III or non-putrescible garbage such as construction debris and yard wastes.)

WASTE REDUCTION

Within the Lakeland Planning Area, the single largest contributor to reducing the amount of waste that actually ends up in the North Central Landfill has been the refuse derived fuel operation that is carried out at the McIntosh Power Plant. Operational procedures allow trucks to weigh in and back into a "tipping" area where the load is dumped onto the tipping floor. Large, hard to handle material is hand sorted. The remaining waste is then pushed onto the receiving conveyor by a front-end loader. The waste is conveyed into a refuse shredder where a cutting and tearing process takes place. Since beginning the refuse derived fuel operation in 1983, the amount of solid waste taken to the landfill by the City of Lakeland has decreased between approximately forty-five to thirty percent. This is in addition to the yardwastes the City sends to Class III landfills for composting.

The City's McIntosh refuse-derived fuel unit, which burns solid waste, handles about 15 tons per hour of solid waste, averaging 18 hours a day, 5 days per week. The average tonnage handled per day by the facility is about 220 tons. In 1996, total tonnage burned at the refuse-derived fuel unit was approximately 48,483 tons; non-burnable wastes, constituted 5,126 tons. There is a small percentage (estimated as 1%) of the non-burnable wastes which are sold but the majority are taken to the County landfill. The total tonnage burned is more than that cited by the City Solid Waste Staff since the refuse-derived burn unit also handles solid waste from Polk County (15,125 tons in 1996). In 1997, City Power Plant staff indicated that there were no significant system needs for the refuse-derived fuel unit operation through at least 2003. However, maintenance and part problems in fiscal year 1997-98 were present in 9 out of 12 months, with two months of complete shutdown.

The City is not bound by the State mandate to recycle a minimum of 30% of solid wastes collected; that mandate applies to Polk County. However, the City has historically recycled approximately 25% to 30% of the solid waste it collects. This is a good recycling performance relative to many other solid waste collection operations in Florida. Most of the City's recyclable tonnage is comprised of yardwastes which are composted. In addition, the City recycles or sells tires, scrap metal and cardboard. The City has an interlocal agreement with the County regarding the use of State recycling funds that the County receives; some of the funds are used by the City to assist in recycling education and other activities. In the interlocal agreement for fiscal year 1998-99, the City's allocation was \$30,000 out of Polk County's total allocation of about \$650,000. The City used these funds towards the purchase of one of the new recycling trucks needed for curbside recycling. Polk County is still investigating curbside recycling for portions of the unincorporated area, and may approve a program for west Polk, near Lakeland, by April 1999.

The City's curbside recycling program began on January 25, 1999. Initial program participation is about 65% of all households city-wide, with neighborhood-level participation varying from 25% to 90%. Containers were delivered to all residences (18-gallon) and apartment complexes (90-gallon) for storage of the six recyclables: aluminum cans, steel cans, newspaper, clear glass, plastics #1 and #2 with a neck, and corrugated cardboard. Pick-up of recyclables occurs on one of the two regular pick-up days for a particular residential area or zone with a third day scheduled each week for yard waste. However, the City must send a separate truck and crew for the recyclables collection.

Six new trucks were purchased which allow sorting of the materials residents leave in their blue recycling bins. The City also established a recyclable materials processing facility which simply bulks together materials sorted by the recyclables trucks. The processing facility is located on Fairway Avenue, near U.S. 92 East, and is expected to have annual operating expenses of \$40,000, plus \$38,000 a year to service the debt for constructing the facility. Rate increases in 1997 paid for rising costs in the solid waste division for payroll/additional waste collectors, equipment maintenance, and landfill fees. The recycling program is expected to divert about 2,300 tons of waste per year, or about 13 pounds per person, from the County's landfill (or 3% of the total solid waste collected by the City on an annual basis). Most of the materials collected will be sold locally except for glass, which will be sent to Sarasota. A collection of 2,300 tons per year would yield the City about \$125,600, including savings on the County's \$44/ton landfill fees. After subtracting costs for the new processing facility, the City could net about \$47,000 a year. Residential garbage fees increased in 1999 by \$1.50 per month, and \$1.25 per month for multi-family units, to help pay for the new curbside recycling program.

PERFORMANCE

The City McIntosh refuse-derived fuel unit was 16 years old in 1997 and has an expected life of 30 years from initial use. Thus, the potential need for significant costs for replacement parts and/or upgrades will become an issue by 2011. Budgeting for some of those replacement costs may begin by about 2004. According to City power plant staff, there are no current environmental issues, including air quality standards, which would impact the level of service being provided by the facility.

The City's collection of solid waste is handled by trucks which depreciate annually with replacement required and budgeted for every 7 years. The City Solid Waste Division staff indicate that a future environmental issue will be the need to separately collect solid wastes containing the contaminate mercury (e.g. button batteries, florescent tubes etc.). While illegal dumping of solid waste at roadsides and other sites is an on-going issue, it is primarily handled by Code Enforcement personnel. Discarded vehicle tires still manage to get into the waste stream. The staff at the McIntosh Plant report that tires from City and County waste received at the refuse burn unit are put into a common dumpster, hauled away by Polk County and taken to the Wheelabrator-Ridge Energy Generation Station, which began operation in August 1994. This facility is located north

of the County's North Central Landfill and is an electric co-production facility which produces electric power by burning wastes such as tree/vegetative debris and old tires. The Ridge Generation Station also has an agreement to pipe the methane gas produced by the County's North Central Landfill to their facility for use as another source of fuel for the production of electricity.

STORMWATER

Stormwater is the water which runs off buildings, streets, and all other impervious and pervious surfaces during a rainfall event. Untreated stormwater runoff can transport pollutants to city lakes and streams. Stormwater runoff is now considered to be the most significant source of pollutant loading to surface waters.

Stormwater management refers to techniques for dealing with runoff in a manner that ensures adequate removal of pollutants and flood protection in an economical manner. These management techniques must generally ensure that the volume, rate, timing and pollutant load which exists after development or redevelopment of a site are similar to or better than the drainage characteristics which existed prior to development.

There are distinct land topographies in the Lakeland Planning Area which require different approaches to stormwater management. There is a high, sandy ridge running north and south through the center of the City dotted with several natural lakes. West of this ridge lies a flat terrain with a maze of streams and expansive floodplains. East of the ridge is a wide swath of formerly mined lands, much of which is unreclaimed, except for establishment over time of dense natural vegetation. Water filled mine pits are also characteristic of these mined-out areas. Illustration IV-9 depicts the four watersheds within the Lakeland Planning Area which give rise to rivers flowing eventually into the Gulf of Mexico.

Local Rainfall Per the Ruskin weather center, Lakeland averages 48 inches of rainfall in a year (1961-1990). In planning for the capacity of stormwater facilities to handle rainfall, the standard of a 25-year storm is generally chosen for open basin systems and is used by the water management district. This storm can be described as the largest amount of rainfall that can be expected during any 25-year period. In Lakeland such a storm would result in about 7.5 inches of rain during a 24-hour period. Stormwater facilities should be designed to accommodate that level storm.

DRAINAGE SYSTEM

The two key aspects of the local drainage system are the natural drainage features and the man-made drainage system. Illustration IV-10 depicts the Lakeland Planning Area's natural drainage features. The lakes, rivers, and other surface waters in the city are an integral part of the larger regional drainage basins depicted in Illustration IV-10. Man-made drainage improvements within Lakeland are largely a function of street and site improvements which connect to the existing system of channels, lakes and streams. The City drainage system, shown in Illustration IV-11, is maintained and operated by the Lakeland Public Works Department. The illustration incorporates the location of the storm sewer pipelines as located via the Division's extensive survey map of stormwater facilities. This survey will assist the City with the effort to maintain its National Pollution Discharge Elimination System (NPDES) permit.

DRAINAGE REGULATION

Stormwater control focuses on the temporary storage of water on-site. On-site detention areas are effective in controlling short, intense, local storm runoff and catch the initial pollutant wash. Detention strategies also help reduce downstream flooding and soil erosion, and help to recharge the groundwater aquifer. The City of Lakeland has had regulations requiring on-site stormwater detention and treatment since at least 1977. Following the adoption of the 1991 Comprehensive Plan, the City compiled and enhanced most existing development regulations into one ordinance, referred to as the "Land Development Regulations."

Provisions in Article 34 of Lakeland's land development regulations address aquifer recharge protection, surface water quality/stormwater management requirements, natural habitat protection, floodplain management, soil erosion control and standards for the review of development site plans in regard to the protection of natural resources. These land development regulations went into effect by early 1993. Most construction activity that results in an increase in impervious surface area requires prior submittal and approval of a stormwater management plan for the site. A pre-post match of peak rate, volume, and pollutant loads is required for all new development and redevelopment. The City's standards are more stringent than the current water management district requirements in that the district does not require a pre-post match for volume. In an urban area where redevelopment is key to a healthy economy, the City's drainage policies are crucial to prevent further degradation of our lakes or any new flooding problems. Developments in a floodplain area must first attempt to locate on the non-floodplain portion of the site. When a development must infringe on part of a 100 year floodplain, the flood water storage function and capacity must be compensated, usually somewhere else on site, according to City and Southwest Florida Water Management District and/or FDEP standards which address this issue; also, structures within a floodplain must be elevated per City regulations. If a site is totally within a 100 year floodplain, development will be prohibited except where it would result in a "taking" of private property.

FLOOD AND SURFACE WATER QUALITY PROBLEMS

The results of a 1988 study and generalized stormwater master plan completed by the firm of Dames and Moore in 1992 were somewhat problematic in regard to predicting flood problem areas. The City's Public Works Department maintains a list of current flood problem areas. Some of the worst areas as of 1998 included streets, intersections and/or segments of the streets as follows (the list will tend to vary each year):

STREETS/ STREET SEGMENTS	
1. Warren Avenue 1316	10. Harden Oak Blvd. near Ballentine Court
2. Buckingham Avenue north of Easton Drive	11. Lowry Avenue north of Crystal Lake Drive
3. Pablo Street	12. Polk Avenue south of Hillsboro Street
4. Alamo Drive and old Hwy 37	13. Alameda Dr., north & south, west of Providence Rd.
5. Antilla St. between Lakeland Hills & N. Florida	14. Gary Road underpass
6. Gilmore Avenue south of Memorial Blvd.	15. Meadowbrook Ave. south of Crystal Lake Dr.
7. Elm Road 1623	16. Carver Street north of 10th Street
8. Howard Avenue (Lone Palm Subdivision)	17. New Jersey Rd. from Easton Dr. to Edgewood Dr.
9. Brunnell Parkway north of 2nd Street	18. New Jersey Road north of Ashling Drive
INTERSECTIONS	
1. Park Street and Atlanta	4. Hancock and Dakota
2. Olney and Smithfield	5. Osceola and Ingraham, near 1316 Warren Ave.
3. Cedar and Main Street	

The City Public Works Department is largely responsible for correction of drainage problems. Corrective actions must be appropriately funded in the City's 5-year Capital Budget Program.

Surface water quality problems are present in all City lakes. All of the lakes in Lakeland are over-enriched with nutrients, primarily nitrogen and phosphorus. This condition, termed eutrophy, results in reduced water clarity, persistent algal blooms, accelerated sedimentation/aging and imbalances in fish and wildlife populations. In Lakeland, eutrophy is due in part to the rich deposits of phosphorus naturally occurring in area soils. The problem is compounded by the discharge of untreated stormwater runoff to surface waters since this stormwater carries fertilizers, pesticides and other pollutants from yards and streets into the lakes.

Since the City's lakes do not meet the goals and objectives of the Federal Clean Water Act, they are subject to future regulation by Federal and State governments. The U.S. Environmental Protection Agency is attempting to identify water bodies not meeting the goals of the Clean Water Act, and will develop methodologies for restricting the discharge of the violating pollutants.

Another source of nutrient loading to lakes is internal recycling from the lake sediments. Sediment dredging or chemical inactivation may be required in lakes with extensive deposits of organic sediments. Lake specific diagnostic studies, as scheduled in the City of Lakeland Comprehensive Lakes Management Plan, are needed to identify the sources of pollution and other management needs.

STORMWATER PROJECTS

The natural surface water system that runs through Polk County includes Lakeland. It is not restricted by any political boundaries but is an integrated natural system influenced by the built environment including man-made stormwater systems. Thus, the City and

the County can benefit from joint stormwater projects and should remain aware of each others stormwater/flood control projects. Heavy rains in the summer of 1995 and the winter of 1998 led the Polk County Commission to begin an intensified effort to correct flooding in over 60 flood problem areas throughout the County. The effort includes continued maintenance of stormwater ditches to retain their proper functioning. The County is also pursuing implementation of regional flood control projects in chronically wet areas along Itchepackesassa, Blackwater, Peace and Gator Creeks; these projects and/or the studies for them are to be jointly funded by the County and the Southwest Florida Water Management District. As of March 1999, engineering studies for these regional projects were well underway but implementation (construction) had not yet been completed.

In addition, Polk County has initiated studies and efforts in the Lakeland Urban Area. This includes stormwater studies and projects for the following:

1. Study of the Lake Parker drainage area. A study was conducted by Keith & Schnars, consultant firm for Polk County, to examine the outfall from Lake Bonny to Lake Parker. This joint project with the City of Lakeland is about to enter the engineering design and permitting stage. Construction should be complete in the year 2000. This is part of an overall evaluation of the Lake Parker-Saddle Creek drainage system; the same consultant (Keith & Schnars) will perform the drainage system analysis. The Florida Department of Environmental Protection also contracted a study (with USF and BCI Engineers) to model drainage from the Teneroc Recreation area (which is primarily unreclaimed mined lands) through the Saddle Creek Basin. This model will include inflows from the Lake Parker sub-basin. The purpose of this study is to evaluate the feasibility of reconnecting isolated unreclaimed mined lands to the Peace River System. This project is still in the design stage.
2. Due to flooding adjacent to Lake Deeson (a closed basin), the County designed and constructed a pumping system to route excess water from Lake Deeson to an outfall into Lake Parker. This project was completed in January 1999, and the system is now operational.
3. The County has proposed a study to revise federal Flood Insurance Rate Maps (FIRMs) for an area near Scott Lake. This has been proposed as a jointly funded project with some funding by Peace River Basin Board. A decision on the application for joint funding is due by mid-1999; if it is approved, work would commence in the year 2000.

Specific City projects for stormwater management include the following:

1. Lake Hollingsworth Restoration – Removal of 3.6 million cubic yards of organic deposits that will restore lake bathymetry and improve water quality.

2. Lake Hollingsworth Watershed Management Plan – A plan to treat a significant portion of stormwater runoff entering Lake Hollingsworth.
3. Comprehensive Lakes Management Plan – A 20-year plan that identifies projects and costs for improving and protecting our lake resources.
4. Pollution Control Device Program – A program to install pollutant removal devices in the existing city stormwater system. The first device was installed at Lake Mirror in 1999. The current funding level allows for one or two installations per year.
5. Lake Parker Southwest Outfall Retrofit – Retrofitting a major stormwater outfall to Lake Parker by constructing a series of stormwater detention ponds along the southwest shore.
6. Street Sweeping – The City of Lakeland removes approximately 16,000 cubic yards of sediments, trash, leaves and other debris from our streets each year. Without the street sweeping program, this material would be discharged into our lakes.
7. Public Education – The City is involved in public education projects to advise citizens on how they can help protect our lakes. These programs include lake displays, stormwater inlet plaques, and presentations to adult and school groups. The City also provides financial and technical support to the grassroots organization – Lakes Education/Action Drive (LE/AD).
8. Lake Parker Tributary Swamp – Restoring the hydrology of a large forested swamp located northeast of Lake Parker. The restoration will revitalize the swamp while providing treatment to stormwater flowing into Lake Parker.

Several of these projects were designed conceptually but had no construction money budgeted by early 1999. These include the Lake Hollingsworth Watershed Management Plan, the Lake Parker Southwest Outfall retrofit, the Lake Parker Tributary Swamp Restoration, and the Comprehensive Lakes Management Plan.

ILLUSTRATION IV-9
Watersheds

ILLUSTRATION IV-10
Natural Drainage

ILLUSTRATION IV-11
Lakeland Stormwater Drainage System

NATURAL GROUNDWATER AQUIFER RECHARGE

Subsurface formations containing water reservoirs are called aquifers. In the Lakeland area there is a system of aquifers below the ground which includes a surficial or shallow aquifer, intermediate aquifer system, and the upper and lower Floridan aquifers. Public water supplies are drawn from the Floridan aquifer which holds the largest quantity of fresh water. The amount of water potentially available is much less since a large volume is needed to maintain hydrologic pressure against saltwater intrusion. Where a subsurface stratum confines the aquifer, hydraulic pressure may exist. The level to which the water would rise without the confining layer is called the potentiometric level. The groundwater in the surficial aquifer is unconfined and is free to rise or fall. Because of this and its nearness to the ground surface, it is highly susceptible to contamination from the surface.

Land areas which absorb rainfall and percolate it downward into underground water systems are aquifer recharge areas. Illustration IV-12 describes the geographical character of aquifers and how it relates to the natural water cycle. The aquifer systems below the Lakeland area are recharged by natural rainfall at a rate of recharge which depends upon soil-type, thickness of confining layers and geologic features such as sinkholes. The areas of high recharge correspond to thinner areas in the confining layers or units overlain with highly porous soil, while very low recharge corresponds to thicker areas and/or clay and other less permeable soil types.

Rule 9J-5, Florida Administrative Code, requires identification and protection of areas of prime or high recharge as designated by the relevant water management district. To date, no areas of prime or high aquifer recharge have been designated by the Southwest Florida Water Management District (SWFWMD), which is the district for Lakeland. Polk County Natural Resources Division staff used a model developed by the St. John River Water Management District to map current recharge rates for all of Polk County. Lakeland and its surrounding area are shown on our excerpt of the County map, Illustration IV-13, Aquifer Recharge Rates. The Scott Lake area remains the area with the highest recharge rate while virtually all the rest of the City has rates below 10 inches per year. Since the SWFWMD has indicated that they intend to use methodology similar to Polk's for the mapping of recharge areas in their district, this recharge rate information is the "best available data" for Lakeland.

Over time, surface water percolates downward through confining beds. In some thick layers, vertical transmission of water may take up to 85 years to reach the Floridan aquifer. In some areas of the Green Swamp, on the other hand, there are no confining layers and recharge occurs rapidly. The longer water is in the aquifer, the greater the concentration of dissolved minerals and other elements. The deeper that water is in the aquifer, the higher the concentration of dissolved elements. Therefore, freshwater north of Lakeland is generally of higher quality than that south of Lakeland.

The Floridan aquifer is exposed to a variety of contamination risks. The major sources of potential groundwater contamination include toxic agricultural chemicals, hazardous

wastes, and landfill leachate. Surface contamination may reach the aquifer through conduits such as fractures, drain wells or sinkholes. Sinkholes are a source of potential contamination because of surface inflow into the holes. Illustration IV-14 shows alignments in Polk County where sinkholes have occurred. Within the Lakeland Planning Area there are two such sinkhole alignments. One alignment roughly parallels the CSX rail tracks from the northwest toward the southeast. The other alignment occurs through the Tenoroc State Reserve. In addition, since the aquifer is near the surface in the Green Swamp, any pollutants, with or without a sinkhole, are likely to leach into the aquifer. The continued use of septic tank systems in the Green Swamp may also translate into a potential contamination risk to the ground and surface waters that run through the swamp. It is critical that the Floridan aquifer be protected since it is the major source of potable water for the Lakeland water service area. Measures for protection include surface water quality improvement programs including drainage regulations, wellhead protection zones, and water conservation programs.

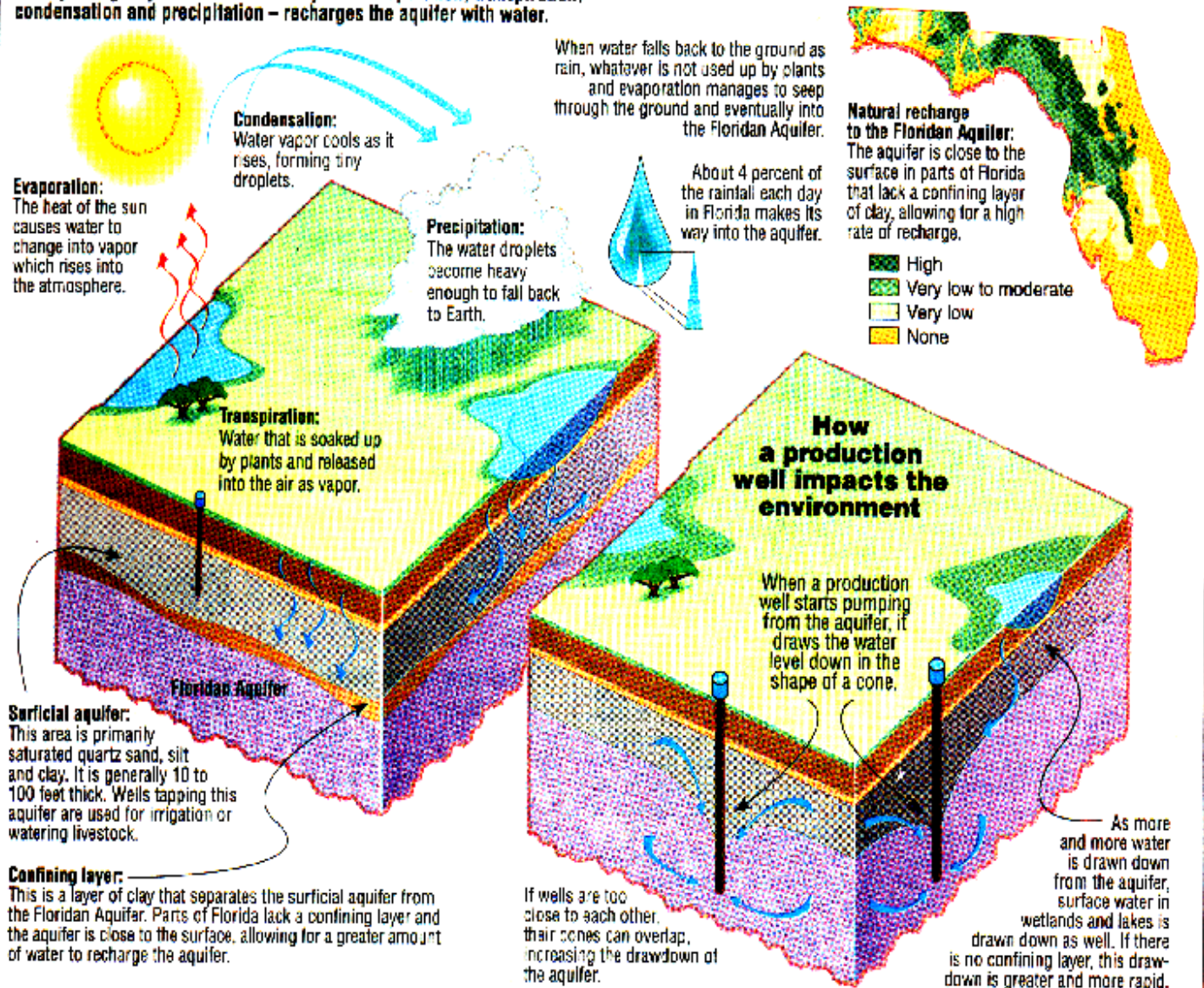
The land development regulations which were effective in early 1993 include a section which addresses wellhead and aquifer recharge protection. This section includes a list of prohibited uses and a list of restricted uses within the zones of protection of an identified high recharge area. Businesses which are located within the zone of protection and to which the restricted use provisions apply, must obtain restricted use permits. These permits require a management plan, which they must submit to the City water department, and which in turn requires collection of quarterly data and annual inspections by City water officials. In addition, the section of the land development regulations which address stormwater management also help protect groundwater quality.

ILLUSTRATION IV-12 AQUIFER SYSTEM

Protecting the water below

The hydrologic cycle – the constant cycle of evaporation, transpiration, condensation and precipitation – recharges the aquifer with water.

Most of West Central Florida gets its drinking water from the Floridan Aquifer, a porous layer of limestone saturated with freshwater. Here's a look at how the water gets there, how it is tapped into and the impact we have on the environment when the water is removed faster than it can be replenished.



Source: Tampa Tribune, 03/31/1997.

ILLUSTRATION IV-13
Aquifer Recharge Rates

ILLUSTRATION IV-14
Major Lineations Along Which Sinkholes have Occurred in Polk County

ISSUES AND OPPORTUNITIES

As this element addresses legislative requirements for several infrastructure issues -- potable water, wastewater, solid waste, stormwater and natural groundwater aquifer recharge -- a discussion of issues and opportunities for each subject is addressed separately. There are numerous issues which must be considered in ensuring adequate infrastructure to meet the needs of the entire Lakeland Planning Area.

WATER SUPPLY PROTECTION

The City of Lakeland land development regulations require a 500 foot radial zone of protection around each wellhead within the City wellfields. The land development regulations list prohibited and restricted uses within the zone of protection. Businesses located in the zone of protection which handle or store materials that are restricted must submit a management plan to the City, collect data on a regular basis, and allow annual inspections by City water officials. In addition, the City's land development regulations require stormwater management systems to address the volume and quality of detained water; this in turn affects the volume and quality of groundwater since stormwater eventually drains into the ground, recharging or renewing the water in the aquifer.

The location of the City's Northwest wellfield and the T.B. Williams Water Treatment Plant is within the urban development area east of Kathleen Road and south of Exit 17 for Interstate 4, although 2 of the 13 wells are located west of Kathleen Road. A business park exists to the east of the water treatment plant. The surrounding area also contains some low density residential developments. It is in the City's best interest to protect the wellfield through prudent land use planning for the area surrounding the wells. The future land use designation of the treatment plant area east of Kathleen is Interchange Activity Center and could allow uses such as retail, restaurant, motel, and employment center businesses as appropriate for an interchange location. The west side of Kathleen where two other wells are located is designated as Residential Medium which allows residential and a small percentage of small scale office or retail. However, it is very important to have a reliable back-up system in case of a failure or problem, including intrusion of contaminants at the Northwest wellfield. This is the key role of the Northeast Wellfield and the C. Wayne Combee Water Treatment Plant which was put into service in October 2005. The Northeast Wellfield, comprising of approximately 870 acres located north of Old Polk City Road, was acquired in 1989 for approximately \$2,200,000 and was recently developed along with the construction of the C. Wayne Combee Water Treatment Plant, located four miles south on Old Combee Road. The City spent \$3,300,000 on pipelines and \$19,200,000 on the new water treatment plant.

Another cost of protecting the water supply is providing for a cross connection control program per State statutes. The City has had a program since 1977 although it's scope has developed gradually over time to the present application. The utility must continue to address how to prevent water supply contamination through control over potential cross connections and backflows. For example, if water pressure suddenly dropped in the system, there is potential for backflow of contaminated water into pipelines from

various sources such as mortuaries, dentist offices, fire sprinkler lines, and even irrigation systems. This backflow might contain biological and infectious contaminants and/or pesticides and other human health hazards. In our current program, all new commercial customers are required to install proper backflow preventer (BFP) assemblies per City specifications. If existing commercial customers with no BFP assemblies pull permits for remodeling endeavors, they must bring their facility up to specifications. These BFP assemblies are generally installed at the meter (point of service) and are owned and maintained by the utility. City utility personnel are certified BFP testers and provide consistency in the annual testing, repair, and recordkeeping.

WATER CONSERVATION

Conservation of water resources is important to ensure adequate future supplies and to stay within permitted water withdrawal parameters. The need for this strategy arises from increasing population growth. Much of the residential water use is attributable to the maintenance of landscaping, and residential appliances requiring water. The City has been working with the Water Management District to decrease this use. An opportunity to decrease the growth of individual water usage has been pursued chiefly by encouraging the modification of landscaping practices, adapting residential appliances and plumbing to low volume water techniques, and increasing public awareness of water shortages including restricted lawn irrigation periods. Watering restrictions introduced by the District have been in effect since 1988, when they were instituted on a temporary basis. Implementation of these watering restrictions by the City has had a dramatic effect on water use. In 2003, the Southwest Florida Water Management District adopted “Year-Round Water Conservation Measures”. This rule, contained in Chapter 40D-22, Florida Statutes, establishes normal water use as only twice-per-week lawn irrigation. A companion rule, Chapter 40D-21, “Water Shortage Plan”, addresses when and how restrictions may then be implemented. Details of the city water conservation programs and initiatives may be found in the Conservation Element and in the City’s response to the SWFWMD’s Regional Water Supply Plan, Support Document IV-Four (Response Letter to SWFWMD), found in the Technical Support Document.

The City of Lakeland adopted its first water conservation plan in 1987. This plan delineated demand and supply side conservation measures as outlined in the Conservation Element. In 1998, the City implemented an inverted block water rate structure with three tiers to further promote water conservation by those consuming 10,000 gallons or more each month. In order to continue to provide a basis for consistent and coordinated water conservation efforts, the Water Conservation Plan was updated in 2004. In 2006, the water rate structure changed from three tiers to four tiers with a considerable unit cost increase for users of over 19,000 gallons per month. An enhanced conservation program is proposed that would incorporate elements such as low-flow toilet rebates, customer irrigation education, irrigation enforcement, conservation kit handouts, and the Water CHAMP program. Water CHAMP stands for Water Conservation Hotel and Motel Program and is a Southwest Florida Water Management District initiative. The program encourages hotels and motels to offer

extended-stay guest conservation options. Patrons may choose to have linens laundered every third day and towels laundered every other day as opposed to the normal every day change out. In addition to water savings, the facility will also save costs on electricity and/or natural gas as well as a labor savings. As available water supplies decrease state-wide, the conservation of existing water supplies will continue to be an important issue.

EXPANSION OF WATER FACILITIES

Under the proposed Water Use Permit renewal request, the Annual Average Daily quantity may eventually increase from the currently permitted amount of 28.03 million gallons a day (MGD) to 36.8 MGD to address expected residential and nonresidential growth. The Northeast Wellfield and the C. Wayne Combee Water Treatment Plant were expanded between 2003 and 2005 and can accommodate a higher water use permit quantity. Originally, City water use forecasts for the entire water utility service area (which is beyond the corporate limits) indicated water demand within the current permit parameters (28.03 MGD) through 2016. Development of the Northeast Wellfield and construction of the C. Wayne Combee Water Treatment Plant were delayed. This delay was due to water conservation and reduced per capita consumption trends of the 1990s and plans to continue conservation strategies such as the inverted block rate structure the City implemented in 1998, use of rainfall indicators for sprinkler systems and xeriscaped plantings on City lands and parks, leak detection and inspection programs and other strategies. These strategies must continue since the City is part of the Southern Water Use Caution Area (SWUCA) defined by the Southwest Water Management District (SWFWMD) and formally adopted as of January 2003. However, the need for redundancy of production facilities as well as increased development and growth in the Lakeland area, including the need to track and serve water allocations, forced not only the construction of these facilities, but also the increase in requested permitted values to meet future demand. Considering all this, the 28.03 MGD amount would have only been adequate up through 2008.

Installation of large finished water transmission mains has taken place in the northeast area of the community along SR 33 and also extended across Interstate 4 to serve the Williams DRI, including the new University of South Florida Lakeland Campus. Future growth development submittals in the southwest portion of Lakeland have initiated close scrutiny in the water capacity available for allocation. Certain areas not already served with water transmission and distribution infrastructure are being considered for line extensions by the developers sooner than the original Capital Improvement Plan had outlined.

Another challenge for the City will be to balance the desire to attract high technology/high water use type industries to the area with the City's other water supply needs, especially given water use permit limitations. The issue of contention of water needs and sources and uncertainty of local officials who want to ensure they can obtain sufficient water use consumption permits has led to the investigation of future multi-city/county collaborations or alliances in developing future alternative water supplies.

WASTEWATER EFFLUENT REUSE

As mentioned above and discussed in detail in the Conservation Element of this Plan, the City pursues both demand and supply-side conservation strategies to reduce overall water consumption and pumping. The City organizationally combined water and wastewater operations into one department in the fall of 1998. This was to ensure a higher level of coordination between the two services and address mutual issues of concern and opportunity. One of those issues is water conservation through reuse of available wastewater effluent. The treatment level of the effluent may become a significant issue during the planning period. Currently, the City annually uses on average 8.4 MGD of its effluent for cooling water at Lakeland Electric's McIntosh Power Plant. Historically the majority of Lakeland's available wastewater has been used for power generation with the remaining effluent channeled to the City's artificial wetlands site located on S.R. 60. The artificial wetlands have been permitted for receiving and treating up to 20 MGD. This capacity clearly addresses the effluent needs of the combined wastewater system capacity of the Glendale Facility (13.7 MGD) and the Northside Facility (8 MGD). Other options, such as supplying reuse water to an interconnect with Polk County or to industrial manufacturers have been discussed but would require amounts of reclaimed water that are not yet available.

The City of Auburndale has approached the City of Lakeland and the Williams Holding Company to supply reuse to the proposed USF campus located near Interstate-4. Auburndale could solve a disposal issue, Williams could assist both Cities in addressing their water issues and Lakeland could see a reduction in potable water used for irrigation. This effort began the summer of 2007 and is proceeding.

The City is also exploring a reuse water cooperative with Polk County in Southwest Lakeland, a high growth area of the City. The County intends to double its water treatment capability from 2 to 4 million gallons per day and needs a way to dispose of the effluent. The City and County are considering requiring reuse lines in new developments in this area to utilize the reuse water in dry seasons and disposal to the City artificial wetlands in the wet season. The City proactively adopted land development regulations in 2006 to require new subdivision projects to install lines, at the developer's expense, to support a reuse water system in any district established as a non-potable irrigation water service area; Southwest Lakeland is a likely candidate district.

Mosaic Chemical Company, located in Southwest Polk County and Southeast Hillsborough County, utilizes ground water in its phosphate processing facilities. Mosaic also maintains mined lands, containing large ponds just south and west of Lakeland. Hillsborough County has plans to expand its wastewater treatment capacity but has issues with disposal of wastewater effluent. Mosaic is considering using effluent from Hillsborough County and making the equivalent amount of ground water available for local utilities. Lakeland has expressed an interest in the concept, but details were not resolved as of late 2007.

There is a potential for new State regulations governing the water quality for power plant cooling water to change and require a higher level of water quality. Such a change would mean that Lakeland Electric would probably invest in a facility which could provide the higher level of treatment. The financial investment needed to pursue this second option would be very significant (estimated at \$30-\$40 million) and could result in the City aggressively pursuing other reuse options for the treated effluent including requiring reuse lines for new development.

INFILTRATION INTO WASTEWATER SYSTEM

The capacity expansions of both of the City's wastewater plants are expected to handle the anticipated growth in service demands for another 10 years subject to the augmentation of organic loading at the Glendale (formerly W. Carl Dicks) facility by 2008. The expansion of capacity at the Glendale facility also addresses any temporary higher flows resulting from infiltration during unusually wet years, such as in 2004. In addition, the City's sewer rehabilitation program has been accelerated to better control infiltration (of stormwater) into lines and manholes.

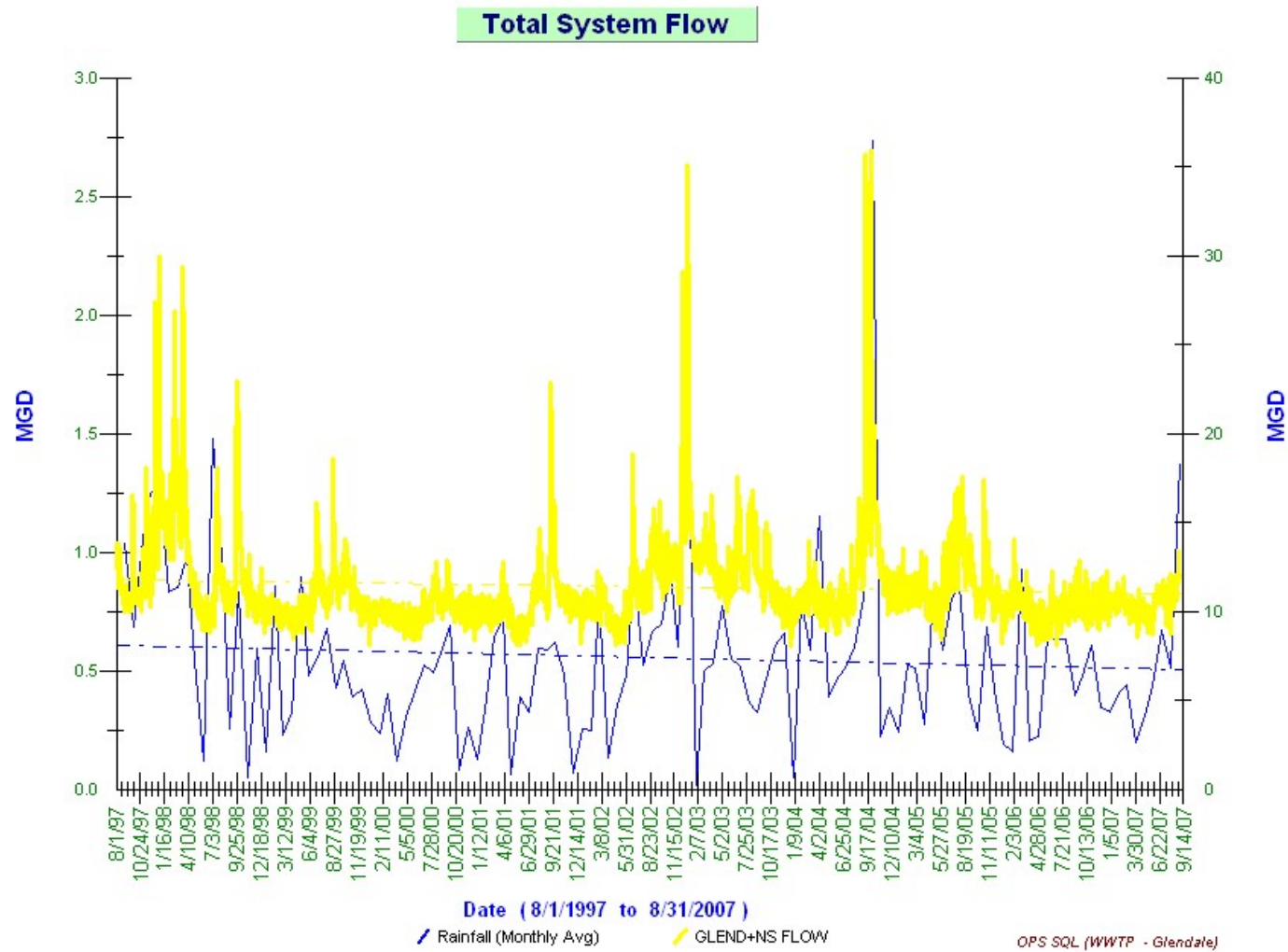
A program that includes efforts to abate infiltration and to assess trunk sewer capacity was significantly expanded in 1995. The challenge is to complete this assessment for a system of about 311 miles of pipeline and over 6,200 manholes through which potential infiltration can occur. Illustration IV-15, entitled "Total System Flow", shows the average flows and monthly rainfall from 1997 to 2007. The chart illustrates the significant effect of inflow during periods of exceptionally high rainfall. For example, during July-September of 2007, flows into the treatment plant averaged almost 2 MGD more than the previous quarter. Based on the observations in this chart, a redirection of efforts from abatement of infiltration (leakage below the water table) to reduction of inflow (direct collection of flood waters) was made as a CMOM project. CMOM stands for Capacity, Management, Operation and Maintenance of the Wastewater Utility. Preliminary observations are indicating significant reductions are probable as more areas are inspected and mitigated.

In order to address the problem of infiltration into the wastewater system, the City significantly increased funding in fiscal year 1996 to accelerate wastewater line rehabilitation. Objectives of the accelerated wastewater line rehabilitation program were to inspect the pipeline by televising the entire gravity sewer system within 7 years, to log and prioritize sewer problems, to repair priority-one problems (e.g. where imminent cave-in of pipe is likely) in a timely manner, and to eliminate 0.5 MGD of infiltration by year 2000. The inspection is performed by a miniaturized robotic camera on treads or a skid, during which data is logged and later categorized and prioritized. While this program has been very effective in identifying problems, preventing imminent cave-ins and eliminating almost 0.5 MGD by fiscal year 1998, the number, and consequently the cost, of repairing priority-one problems was initially underestimated. Through inspections completed as of September, 2007, \$13.2 million in future priority-one and priority-two work* have been identified, while the annual inspection and repair budget has increased from \$700,000 to \$900,000, and will gradually increase to

\$1,000.000 in October 2012. (An example of priority-two work is repair for a pipe with a crack in it.)

The project has resulted in a declining Annual Average Daily Flow (AADF) at Glendale, in spite of increasing the customer base over the last ten years. In response to an EPA required CMOM audit, the City is now refocusing the project into shallower leaks which result in direct inflow to the system during rain events. The audit had to follow a structured outline which addressed various CMOM elements of the Utility's operations. The assessment was contracted through an experienced firm which had previously provided accepted reports and documentation to the US EPA from other utilities.

ILLUSTRATION IV-15



Source: City of Lakeland Wastewater Division, 2007

UTILITY SERVICE & URBAN GROWTH

As Lakeland and the surrounding urban area continues to grow in population and businesses, infrastructure needs of water and wastewater will continue to play a key role in where growth locates. The City has largely provided customers inside the City limits with wastewater service. For those customers located outside the City and willing to pay for connection to the City's wastewater system, an annexation agreement is required for the property; once the property becomes contiguous with the corporate limits, the City has the option of requiring annexation.

The City of Lakeland has various Wastewater Service policies which discourage urban sprawl. One compact growth policy results from Lakeland having defined a "Wastewater Utility Service Area." The lack of centralized wastewater service tends to limit the densities and intensities of growth outside of the service area. The delineated service area also serves as a tool in planning for the extension and sizing of wastewater lines. A second important City policy requires that new development pay for and construct wastewater line extensions necessary for the development. In addition, private lines can be designed to accommodate other future users through the City's policy on oversizing wastewater lines that allows the City to contribute funding for oversizing privately-funded line extensions and later recoup those funds from future customers who connect to or "infill" along the line route. This policy accommodates development needs and longer-range City capacity needs, while avoiding an inefficient system of small, limited-capacity individual line extensions.

While customers who connect to Lakeland's wastewater system normally pay for connection through either reimbursements by future tenants or through upfront capital costs plus impact fees, an exception to the City's policy was made in a decision in 1994 when the Lakeland City Commission agreed to fund the cost for wastewater service line expansions to "high growth areas" targeted by the Lakeland Economic Development Council. Medium-sized wastewater trunklines were extended south on U.S. 98/Bartow Road to C.R. 540/Clubhouse Road in order to service Traviss Technical Center, the University of South Florida-PCC Campus, existing industry and future growth in the corridor. Another extension was made for the businesses at the Lakeland Linder Regional Airport's Airside Center business park which provides substantial lease revenue to the City. Both of these lines will require upsizing in the next 3 to 5 years due to the growth in demand in these areas of the City and Polk County. A third extension was proposed for the area north of Interstate 4 along Griffin and Kathleen roads. No reimbursement was required from the private sector for these line extensions. The benefit of these extensions will be to infill areas already developed with future growth of compatible intensities and to discourage growth moving to isolated, less developed areas. This also maximizes existing infrastructure and public services provided in these areas.

The policy of service priority within the City and its urban development area, in conjunction with the absence of County wastewater service for County-approved development located outside of much of Lakeland, has resulted in a proliferation of

septic tank systems in those areas. By law, those businesses or residences using approved septic tank systems are not required to connect to a centralized sewer system unless it is available (within a ¼ mile or abutting the property, depending upon the situation). The City has been requested in a number of cases to consider servicing failing private development-installed wastewater package plant systems located in the County, including the Skyview development, Hidden Lakes Estates and others. These situations occur when the Department of Environmental Protection and/or the County Department of Health begin fining the owners of the private package system due to system failures and health violations. If the private owners do not respond or simply abandon the system, the residents are then faced with how to finance the connection to a centralized system. The risk of the failure of package treatment plants will continue to be an issue until the package systems are connected to regional wastewater systems.

The utility is now designing a major expansion to the area southwest of the Lakeland Linder Municipal Airport. Proposed growth and development in this southwest area of the City is much more than the existing collection system can handle. The Wastewater Utility has had to move up its schedule of capital improvements to the capacity and the range of its collection system. Projects titled English Oaks I, II, and III all are being implemented. English Oaks I involved the installation of an additional pump station and the upgrading of some force mains and an existing pump station south and west of the airport. English Oaks II provides for a new pump station to be sited north and east of the airport on Drane Field Road in order to move the larger future waste stream that this growth will deliver. English Oaks III provides for the installation of a large diameter force main from the new English Oaks II pump station all the way to the Glendale WWTP. The route is generally the same as that of the Polk Parkway. Completion is not expected until toward the end of calendar 2009. The areas increase in water and wastewater service demand may increase effluent available for reuse as well.

HAZARD MITIGATION

The County is expected to adopt a Local Mitigation Strategy which will provide recommendations regarding preventing and preparing for natural disasters and other types of hazards. The funding and installing of adequate back-up generator systems for all water and wastewater systems serving the public is one of the issues currently being addressed. Establishing adequate interties between water system providers (e.g. Polk County, Auburndale, Lakeland, etc.) also may be prudent in order to ensure uninterrupted public supply. As urban growth continues, such preparation becomes essential in a region subject to severe weather conditions and related interruption of electrical service.

SOLID WASTE COLLECTION

The City currently collects solid waste for all areas inside the city limits. As the City continues to grow, additional collector personnel and/or trucks will become necessary. To contain costs and subsequent rate increases the City will need to examine alternative methods of efficient collection. The City currently uses a three-man

collection system (one driver and two collectors). Alternative collections using two-man semi-automated systems or one-man fully automated systems will be examined. Given the advent of separated recycling collections in addition to collection of yardwastes and collection of all other garbage, the City will periodically re-examine the costs and benefits of twice weekly collection of garbage.

The City presently does not provide roll-off services to city residents (i.e. to collect construction debris). These services are provided through private contract haulers. The City will examine the feasibility of providing roll-off collections to increase revenues, which in turn will contain overall solid waste rates. The addition of roll-off services will assist the city in providing increased efficiencies to yardwaste and apartment complex collections.

SOLID WASTE DISPOSAL

In 1998, the City disposed of approximately 40% of its solid waste at the County landfill at a cost of \$44 per ton, up from 29% landfilled in 1996. The refuse-derived fuel unit at the McIntosh power plant accommodated approximately 30% of the city's waste stream at \$28 per ton. When this unit shuts down due to maintenance, the amount burned is zero; the City must pay to landfill what would otherwise be incinerated. At other times the unit is less than fully operational due to broken parts, etc. The availability of the unit for City solid waste disposal varies each month and sometimes each week. The City will need to continue to examine the economic advantages of using the McIntosh power plant and will explore alternatives that may increase this economic advantage. As maintenance issues continue to impact the availability and reliability of the refuse-derived unit, the feasibility of an upgrade to and/or replacement of the unit will need to be evaluated by the City.

There are several factors under study by Lakeland Electric that could affect the future reliability of the operation of the RDF unit. First is an on-going effort to process biomass for future electric generation needs. One option for this is the installation of a gasification system that could convert both RDF and biomass to a combustible gas that could be burned in perhaps more than one unit. Lakeland Electric will study the economic and technical feasibility of this option. Since the facility is jointly owned by the City of Lakeland and the Orlando Utilities Commission, Orlando would have to invest funds in an upgrade as well. Thus, any major upgrade to the RDF unit is not likely in the near future, per Lakeland Electric staff. Any decision to improve the RDF unit for enhanced performance will be made by Lakeland Electric as a business decision and in perspective of their main function, power production.

RECYCLING PROGRAM

A Citywide residential curbside recycling program began on January 25, 1999. Participation rates, amounts of collected materials and efficiencies of the program will require monitoring and future evaluation. Marketability of recyclables may vary over

time and in turn impact the items collected in this program. The City will focus on public education for this program and marketability of the collected materials.

EXISTING STORMWATER SYSTEM

The existing drainage system consists of various combinations of curbing, drains, ditches, culverts, outfalls and other structures which have historically relied upon the lake reservoir system for stormwater retention and storage. On-site retention has been required for new construction in order to maintain pre-development runoff amounts. Appropriate stormwater management practices can ensure no new flooding problems from development and redevelopment. In order to optimize management of stormwater in the City and coordinate the City's systems with the larger urban area drainage characteristics, the City has compiled and must maintain detailed inventories, with data then entered into a database to allow for computer analysis. The necessary inventories and studies are costly. Follow-up actions to retrofit or upgrade the drainage system usually involve additional costs. Priorities for studies and follow-up actions must be coordinated with the capital improvements budget. The City is still exploring the issue of adopting a stormwater utility fee as a dedicated source of funding for drainage improvements and upkeep. A feasibility study for a stormwater utility fee was completed in 1998 by the City's Public Works Department.

WATER QUALITY OF AREA LAKES

Lakeland has a lakes management program which has established data on various area lakes, and a 20-year Comprehensive Lakes Management Plan formulated in 1996 (see Conservation Element). The lakes management program and 20-year plan includes information on lake water levels, water quality, fisheries, recreation demand and how each lake fits into the overall drainage system. Since lakes were historically integrated into the urban drainage system, water quality is constantly degenerated by urban stormwater runoff. In fact, most of the stormwater infrastructure in the City of Lakeland was constructed before any concerns about the effects of stormwater on lake water quality. Sites developed prior to the implementation of stormwater treatment regulations discharge untreated runoff directly into our lakes. To improve both water quality and wildlife resources, and to meet existing state and federal water quality standards, Lakeland will need a long-term commitment to retrofitting the stormwater systems in the city. Retrofits, however, are expensive; there are hundreds of pipes that discharge into our surface waters.

Should any particular water body be targeted for a major improvement of water quality, such as through lake bottom dredging technology, retrofitting the drainage pattern to pretreat or divert polluted runoff prior to its entering the surface water would maximize the investment in the surface water clean-up. The issue facing the City is how to fund lake water quality improvements targeted in the City's 20-year Lake Management Plan. State grants, local utility fees, taxes, and other capital projects revenue sources are all possible alternatives. As intergovernmental coordination advances, joint City-County projects may become possible. This could include Basin Board funding, where regional

surface water benefits are evidenced by such a joint project. A dedicated funding source must be established by the City to implement the Comprehensive Lakes Management Plan or a similar plan that establishes a retrofit program. Funding assistance provided by state and federal assistance programs should be utilized to the maximum extent possible. It should be understood, however, that competition for these limited resources is intense, and that a local dedicated funding source is optimal.

AQUIFER CONTAMINATION

Both the surficial aquifer and the deeper Floridan aquifer are used extensively for potable and irrigation water supplies. There are instances where groundwater has been contaminated by hazardous wastes or landfill leachate. The surficial aquifer recharges the intermediate and Floridan aquifers, so there is concern that contaminated surface water could ultimately affect the Floridan aquifer which is the source of public water supplies. On a regional basis, the Floridan aquifer is also threatened by certain practices such as the phosphate mining procedure of recharging the Floridan aquifer with groundwater, or injection of sewage effluent and industrial wastes into zones below the drinking water aquifers. The opportunity exists to protect water resources through tracking contamination sources, monitoring water sources and providing protection to wellfields and well areas.

NATURAL GROUNDWATER AQUIFER POTENTIOMETRIC LEVEL

The potentiometric surface level of an aquifer is how high the water level rises under unconfined conditions. Surficial groundwater in Lakeland has no confining layers and is free to rise or fall with rainfall or drought conditions. The deeper Floridan aquifer, however, is subject to subsurface strata which confine the water and cause it to be under pressure. In certain areas of central Florida where the confining stratum is fractured, the aquifer rises to the potentiometric level creating a free flowing spring or artesian well. As the potentiometric level drops, these flows slow or even dry up.

The Southwest Florida Water Management District (SWFWMD) monitors potentiometric levels of the Floridan aquifer in the Lakeland area through a series of monitoring wells. Annual dry and wet season potentiometric levels vary by approximately 8 feet in the vicinity of Polk City and by 28 feet southwest of Lakeland near Medulla. As these levels fall, the Water Management District declares water restrictions in order to conserve water for future supplies, maintain hydrologic pressure against saltwater intrusion, and maintain some minimal water level in area lakes. Water conservation techniques and wastewater reuse will help mitigate the requirement for even more stringent water restrictions. Maintaining the potentiometric level will be one of several issues the City must face when and if it seeks to operate and maintain the Northeast Wellfield.

GREEN SWAMP AREA OF CRITICAL STATE CONCERN

The Green Swamp comprises approximately 6,985 acres in Polk County. In the 1990s the Lakeland city limits came to include a small portion (101 acres) of the Green

Swamp in the northeast area of the City. The further annexation of 1,796 acres which expanded the total area of the Green Swamp within the City's jurisdiction to 1,897 acres led to the subsequent adoption of policies and regulations for development in the Green Swamp in the Lakeland Comprehensive Plan and the Land Development Regulations in 2006. The annexation included the Northeast well field thereby allowing the City to have jurisdiction over that important resource. The Green Swamp carries the designation "Area of Critical State Concern" (ACSC) because of its important hydrologic resources. The Green Swamp is the headwaters of four major Florida rivers, functioning as a substantial natural storage area for flood waters and as an aquifer recharge area. The overall elevation of the Floridan aquifer above sea level provides water pressure which counters salt water intrusion and causes natural spring flow. Within the Green Swamp the aquifer is often close to the surface and therefore vulnerable to contamination. Development in the Swamp and just north of Lakeland includes residences, schools, an auto auction, a slaughterhouse, an auto racetrack and various small industries. Continued development of this type could pose a threat to Lakeland's hydrologic resources. Polk County's Comprehensive Plan includes provisions to significantly restrict development in the ACSC in what is deemed the "Core Area" of the Swamp. Other restrictions apply to "Special Provision Areas," such as near Polk City and U.S. 27; new development applications are most prevalent in the Special Provision Areas. Extension of sewer into these areas may address the septic system threat but also leads to the potential for higher intensities and densities of development. A careful balance between development rights and environmental concerns must be sought. Preserving the Green Swamp's natural functions of flood control and aquifer recharge will benefit the City, the County and the region.

GOALS, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to potable water, wastewater, solid waste, drainage and natural groundwater aquifer recharge systems. For purposes of definition, goals are generalized statements of a desired end state toward which objectives and policies are directed. Objectives provide the attainable and measurable ends toward which specific efforts are directed. Policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goals.

The goal, objective and policy statements in the Infrastructure Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan.

GOAL 1: Provide an adequate supply of high quality water to customers throughout the service area.

Objective 1.1: Upon plan adoption, achieve and maintain acceptable levels of service for water quality and availability.

Policy 1.1A: The City of Lakeland will plan for capital improvements for water facilities, in order of priority, 1) to correct existing facility deficiencies, 2) provide for future facility needs and 3) to replace existing facilities as required.

Policy 1.1B: The City of Lakeland will provide potable water at the following levels of service:

LEVELS OF SERVICE

- a) **Quality**
Compliance with all Florida Department of Environmental Protection (FDEP) and Federal Drinking Water Standards.
- b) **Quantity**
 - System-wide water quantity will be sufficient to furnish a minimum of 150 gallons per capita per day, on an average annual basis to address both residential (domestic) and commercial water supply needs;
 - domestic service is targeted at approximately 130 gpd per capita;
 - per capita consumption targets are given in Infrastructure Element Objective 1.3;

- minimum flow pressures are also established as follows:
 - 20 psi for fire flow events
 - 30 psi for peak demand periods.

Policy 1.1C: Lakeland will adopt an ordinance meeting all FDEP requirements for a Cross Connection Control Program. This ordinance will replace the City's existing policy for cross connection control. Funding for program implementation will be identified prior to ordinance adoption. Commencement of the program will be dependent upon FDEP deadlines and City budgetary resources.

Comment [i1]: Note: could be up to \$1 million/year over 10 years.

Policy 1.1D: The City of Lakeland will enforce the minimum wellhead radial zone of protection as defined in the City's land development regulations.

Objective 1.2: Upon plan adoption, prioritize and execute needed system improvements in a manner which protects existing investments, promotes orderly growth, and is consistent with the Capital Improvements Element and Capital Improvements Program of this plan.

Policy 1.2A: All improvements, expansions, replacements or increases in potable water capacity to existing facilities will meet established level of service standards.

Policy 1.2B: New urban development will only occur within areas where potable water services are available concurrent with development.

Policy 1.2C: The City of Lakeland will continue to require necessary on-site water system improvements to be completed at the expense of the property owner.

Policy 1.2D: Where service area agreements exist, the City of Lakeland will continue coordination efforts to ensure availability of service and ascertain any needed revisions of boundaries.

Policy 1.2E: The City of Lakeland will extend water service in a pattern consistent with the Future Land Use Map, the Future Land Use Element, and all policies of the comprehensive plan, adhering to a compact urban growth area, promoting infill development and discouraging urban sprawl. Water service will be given priority within the Urban Development Area depicted in Illustration II-17 of the Future Land Use Element.

Policy 1.2F: Back-up power generators at the City's water treatment plant shall be tested and maintained on a regular basis.

Objective 1.3: Continue promoting the conservation of potable water resources to achieve a reduction in actual daily per capita consumption. Using the methodology for the Southern Water Use Caution Area to calculate per capita consumption, the City will target a reduction in domestic per capita water consumption to 120 gpd by 2005, and

approximately 110 gallons per capita per day (gpcd) by 2010. This target recognizes that the City's per capita consumption in 1998 was approximately 125 gpd using SWUCA methodology.

Policy 1.3A: The City of Lakeland will reduce per capita consumption of potable water through implementation of the Conservation Element of this comprehensive plan.

Policy 1.3B: The City of Lakeland will support education and awareness of water use restrictions within the corporate limits during SWFWMD declared water shortage periods and provide enforcement of such restrictions wherever possible.

Objective 1.4: The City will utilize and maintain a Water Supply Facilities Work Plan as part of its Potable Water Sub-Element to address water supply facilities necessary to serve existing and future development within the City's water utility service area for at least a ten year planning period.

Policy 1.4A: The Water Supply Facilities Work Plan will be consistent with the potable water level-of-service standards established in Policy 1.1B.

Policy 1.4B: The City's Potable Water Sub-Element (Water Supply Facilities Work Plan) will be updated subsequent to the State required five year updates of the Southwest Florida Water Management District (SWFWMD) Regional Water Supply Plan.

Policy 1.4C: When updating the Water Supply Facilities Work Plan, the City will consider the feasibility of alternative sources of water in order to meet projected water demands.

Policy 1.4D: The City will utilize its Water Supply Facilities Work Plan to assist in prioritizing and coordinating the expansion and upgrade of facilities used to withdraw, transmit, treat, store and distribute potable water to meet future water demands.

Policy 1.4E: The City will maintain, at a minimum, a current 5-year schedule of capital improvements for the improvement, extension and/or increase in capacity of potable water facilities reflecting those projects in the corresponding five (5) years of the Water Supply Facilities Work Plan.

Objective 1.5: The City will identify sources of water that can be used to meet existing and future needs when maintaining and updating the Water Supply Facilities Work Plan.

Policy 1.5A: In conjunction with the SWFWMD and other local governments, the City will consider the development of efficient, cost-effective, and technically feasible water sources that will meet future demands without causing adverse impacts to water quality, wetlands and aquatic systems.

Policy 1.5B: The City will maximize the use of existing potable water facilities through the implementation of techniques that can enhance a source of supply, sustain water resources and related natural systems, and/or optimize water supply yield. The management techniques may include, but are not limited to, developing water reservoirs for reuse/reclaimed water, requiring alternative sources for meeting irrigation needs of new "Greenfield" developments, enhancing or adding water or reuse water system interconnects, and continuing to enhance all feasible methods of water conservation.

GOAL 2: **The City of Lakeland will provide high quality and economical wastewater service while protecting the environment by preserving water quality.**

Objective 2.1: The City of Lakeland will annually examine capital improvements priorities as funded in the Five-Year Capital Improvements Program in order to prevent deficiencies in Publicly Owned Treatment Works (POTW) capacities to meet projected demands within established service areas at adopted service levels.

Policy 2.1A: Customer charges and impact fees will support the rehabilitation, replacement, maintenance, and expansion needs of the wastewater system, consistent with the City's long-range wastewater planning.

Policy 2.1B: The orderly maintenance, expansion and extension of the POTW's will be prioritized and scheduled through the Five-Year Capital Improvements Program, and will be updated annually.

Policy 2.1C: The City will maintain an industrial pretreatment program in accordance with Florida Department of Environmental Protection guidelines. Through this program, Wastewater Discharge Permits will be required of Significant Industrial Users.

Policy 2.1D: The initial phases of wastewater trunk line extensions which were found feasible through the 1995 Master Sewer Plan study will be completed by year 2000. Subsequent trunk line construction, consistent with the study, will be made at such time within the 20-year planning period as it becomes financially and practically feasible.

Policy 2.1E: In conformance with the City's 20-year plan for the wastewater trunk line system, the City will monitor and reduce infiltration and inflow of groundwater and stormwater into the wastewater collection system. By year 2009, one million gallons per day (1.0 MGD) of infiltration and inflow will be eliminated.

Policy 2.1F: Routine inspection of the collection system will be performed by closed circuit television. Deficiencies identified will be prioritized and repaired on a priority basis. Emergency power generators for lift stations and treatment plants shall be tested and maintained on a regular basis also.

Policy 2.1G: The City of Lakeland will provide wastewater service at the following levels of service:

LEVELS OF SERVICE

a) Quality

Compliance with all standards of the U.S. Environmental Protection Agency (EPA) and Florida Department of Environmental Protection (FDEP).

b) Quantity

System-wide wastewater collection and treatment will be sufficient to provide a minimum of 128 gallons per capita per day on an average annual basis. Plant expansion shall be planned in accordance with F.A.C. 62-600.405.

Objective 2.2: Wastewater Service will be made available to new development in a manner to promote compact urban area growth, promoting infill development, and discouraging urban sprawl.

Policy 2.2A: The City's Wastewater Division will coordinate wastewater service for new development with the City's Community Development Department to ensure compliance with the Future Land Use and the Infrastructure Elements of the Comprehensive Plan. Wastewater service shall be primarily limited to the designated urban development area for Lakeland.

Policy 2.2B: Wastewater service will be offered to new development only when all concurrency mandated facilities can be provided concurrent with the new development.

Policy 2.2C: Wastewater service will not be provided within any area designated as a greenbelt in the Conservation Element of this plan. (See Conservation Illustration VI-13.)

Policy 2.2D: To promote compact urban area growth, virtually all wastewater line extensions for new development will be funded by development.

Policy 2.2E: All proposed development will be analyzed to determine the availability of adequate wastewater capacity and a development order or permit will not be issued unless sufficient capacity at acceptable service levels exists.

Policy 2.2F: The City will continue to equitably allocate the cost of new facilities between existing and new residents with on-site improvements made at the property owner's expense.

Policy 2.2G: Wastewater customers served by an existing package plant may be connected to the City POTW when impact fees are paid for each customer, wastewater line extensions to the City system are constructed by the applicant, and annexation agreement provisions are met.

Objective 2.3: Wastewater treatment by-products will be reclaimed or disposed of in an environmentally acceptable manner while maximizing resource recovery.

Policy 2.3A: The City's Wastewater Division and Electric Utility will coordinate regarding potential for incineration of wastewater sludge such that, when and if it becomes feasible, the City will begin incineration of wastewater sludge at the McIntosh power plant.

Policy 2.3B: Wastewater effluent water will be reused as power plant cooling water and plant process water. As opportunities become feasible, effluent reuse at the power plant will be increased, and/or will be made available to other users of the effluent.

Policy 2.3C: Wastewater effluent from existing plants which is not reused will be disposed of by means of the City's artificial wetlands. The City will monitor the outflow from the effluent wetlands to assess any affect on State surface waters in compliance with all applicable State water quality rules.

GOAL 3: The City of Lakeland will manage solid waste in a sanitary, economic and environmentally safe manner.

Objective 3.1: Continue to ensure satisfactory and economical solid waste management for all City residents through the 2000-2010 planning period through adopted minimum levels of service standards.

Policy 3.1A: The City of Lakeland will maintain a self-supporting solid waste system within the municipal service area.

Policy 3.1B: Solid waste franchise areas will furnish solid waste services at the same cost and level of service as the City system.

Policy 3.1C: All City-franchised solid waste services will utilize the City power plant when available for disposal of non-recycled burnable wastes.

Policy 3.1D: The City of Lakeland will provide solid waste service at the following levels of service:

LEVELS OF SERVICE

a) Quantity

Provide adequate pickup and disposal service to accommodate a minimum of five pounds (5.4 lbs.) per capita per day. Intergovernmental coordination efforts with Polk County will include an annual report to the Polk County Environmental Services Director stating the City service area population and the anticipated annual tonnage of solid waste to be disposed of at the North Central Landfill.

b) Pickup

Provide for a minimum of twice weekly residential garbage and containerized trash pickup, with collection of recyclables and yard/bulk trash and tree trimmings at a minimum of once a week

Policy 3.1E: The City of Lakeland will maintain a five-year Capital Improvements Program updated annually which will, in order of priority, 1) correct system deficiencies, 2) provide for the extension of, or increase, the capacity of facilities to meet future needs, and 3) provide for the replacement of equipment and facilities in a timely manner.

Policy 3.1F: The City of Lakeland will ensure the proper disposal of wastewater sludge in accordance with the Wastewater section of this plan.

Policy 3.1G: By 2005, the City will increase the total annual tonnage diverted through its curbside recycling program by at least 3 percent.

Objective 3.2: Reduce the amount of solid waste disposed of in landfills in compliance with the Florida Solid-Waste Management Act.

Policy 3.2A: Solid waste going to landfills will be reduced, in order of priority, by 1) recycling of materials, 2) waste-to-energy conversion at the City's McIntosh power plant, and 3) tree and yard trash composting.

Policy 3.2B: Hazardous wastes will be managed separately from the City and franchise solid waste collection systems. The City will continue to support the annual County Amnesty Day program for collection of hazardous wastes from small-volume generation.

Policy 3.2C: The City of Lakeland will support Polk County efforts to recycle solid waste material sent to the County landfill through curbside recycling, waste incineration and diversion of vegetative wastes and construction debris.

Policy 3.2D: As new generator units are added to the City of Lakeland power plants, the feasibility of expanding or adding a second waste-to-energy facility will be

evaluated as part of the overall goal to reduce the amount of waste disposed in the County landfill.

Policy 3.2E: The City of Lakeland will dispose of a minimum of 30% of its annual solid waste through its refuse-derived fuel operation at the McIntosh Power Plant.

GOAL 4: The City of Lakeland will manage and protect natural surface water functions to minimize adverse impacts.

Objective 4.1: Maintain a database on all existing and newly constructed drainage systems in the City.

Policy 4.1A: The City of Lakeland will study and document water quantities and associated drainage structures and facilities.

Policy 4.1B: The City of Lakeland will continue to monitor water quality for City lakes and surface waters associated with natural drainage features.

Policy 4.1C: The City of Lakeland will continue to coordinate with Polk County in maintaining and updating the City database for surface waters and drainage characteristics.

Objective 4.2: Continue to ensure the provision of drainage and stormwater retention to minimize flooding and water quality degradation.

Policy 4.2A: The Lakeland Stormwater Management Database will be used by the City to determine priorities for upgrading existing drainage facilities to adopted levels of service.

Policy 4.2B: All applicable Federal, State, regional and local regulations pertaining to flood control and water quality preservation will continue to be met in public and private project design.

Policy 4.2C: The City will continue to coordinate stormwater projects with adjacent local government comprehensive plans and public or private agency plans to achieve a compatible and integrated approach to stormwater management.

Policy 4.2D: The City of Lakeland will use the following minimum level of service standards when evaluating the stormwater protection ability of all existing and any proposed development:

a) All development is required to manage runoff from the 25-year frequency, 24 hour duration design storm event on-site so that post-development runoff rates, volumes and pollutant loads do not exceed predevelopment conditions.

- b) All development must utilize SWFWMD's latest stormwater-management, engineering design, and construction standards for on-site stormwater management systems.
- c) All development must utilize acceptable erosion and sediment controls during construction.
- d) All development must provide periodic inspection and maintenance of on-site stormwater management systems and provide evidence of such inspection and maintenance as a condition of system permit renewal.
- e) All stormwater treatment and disposal facilities must meet the water quality standards established in the Florida Administrative Code. Specifically, all stormwater discharge facilities must be designed so that the receiving water body is not degraded below the minimum conditions necessary to ensure suitability for its classification. Any exemptions, exceptions or thresholds found in Chapters 17-25 or 17-40, Florida Administrative Code are not applicable as a deviation from these locally established standards.

Policy 4.2E: All new development and redevelopment must adhere to adopted levels of service for stormwater management.

Policy 4.2F: Priorities for upgrading existing drainage facilities will continue to be scheduled in the Capital Improvements Element of this plan and updated annually.

Policy 4.2G: Rivers, lakes, floodplains and wetlands will be shown on the future land use map series.

Policy 4.2H: Protection of property and infrastructure from flood damage will be accomplished during the site plan review process by enforcing pertinent FEMA, State and local government regulations, including the City's land development regulations.

Policy 4.2I: Lakeland will continue implementation of its 20-year Lakes Management Plan as funding is available, to ensure surface water quality improvements are made to protect and enhance local lakes and habitats for lake-dependent plant and animal species. Retrofitting old drainage systems and maintaining existing and new drainage systems shall be part of the City's strategy to improve and/or protect surface water quality.

Policy 4.2J: The City will utilize revenues from the adopted stormwater utility fee as one source of funding for stormwater improvements and maintenance.

Objective 4.3: Ensure that development approved in flood-prone areas is consistent with the functions of natural systems.

Policy 4.3A: The City of Lakeland will protect natural drainage systems through provisions of the Future Land Use Element of this plan and implementation of land development regulations. The regulations require development in the FEMA 100-year flood hazard zone to be constructed so that the lowest finished floor elevation is at least one foot above the base flood elevation (BFE) as established by the FEMA Flood Insurance Rate Maps.

- (a) Dredging and filling of lands within floodplains will be restricted so as to preserve the natural function of the 100-year floodplain. All proposed development or redevelopment shall be located primarily on the non-floodplain portion of the site and the City shall use gross density provisions given in the Future Land Use Element to encourage development or redevelopment to be clustered on the upland portion(s) of the property.
- (b) For proposed development or redevelopment areas that lie within the 100-year floodplain, residential structures shall be required to be elevated and non-residential structures shall be required to be either elevated or flood-proofed. Elevations shall be at least 1 foot above the BFE.
- (c) Floodplain dredge and fill activity shall require adequate compensation for stormwater management in accordance with City engineering standards and applicable standards of the Southwest Florida Water Management District and the Florida Department of Environmental Protection.
- (d) No development activity shall be allowed that will raise the 100-year base flood elevation.
- (e) No hazardous materials or waste shall be stored within the 100-year floodplain.
- (f) Development of property that is entirely within the 100-year floodplain shall be prohibited except where such would result in a “taking” of private property.
- (g) Within the Green Swamp Area of Critical State Concern, no new lots shall be created which are entirely within a 100-year floodplain area unless such would result in a taking of private property. In the remainder of the City, lots within the 100 year floodplain shall be discouraged through provisions which allow clustering of lots on the upland portion of a site and reduced lot sizes.

Policy 4.3B: For the area of the City which extends into the Green Swamp Area of Critical State Concern, development regulations will continue to meet or exceed State requirements. (See Future Land Use Policy 2K.)

Policy 4.3C: The City of Lakeland will continue to enforce land development regulations which protect property and infrastructure from flood hazards through the maintenance of natural drainage features.

GOAL 5: The City of Lakeland will protect and enhance the function of natural groundwater aquifer recharge areas.

Objective 5.1: Continue to enforce standards and criteria within local land development regulations which protect groundwater aquifer recharge areas consistent with the policies set forth in the Conservation Element of this comprehensive plan.

Policy 5.1A: Upon identification of high or prime recharge areas by the Southwest Florida Water Management District, the City will adopt land development regulations which list uses incompatible for location in those areas including setting specific standards for stormwater management in high or prime recharge areas.

Policy 5.1B: The City of Lakeland will coordinate with the SWFWMD to maintain minimal surface water levels during dry years.

Objective 5.2: Continue to enforce standards and criteria within local land development regulations which protect wellfields from activities adversely impacting groundwater quality consistent with the policies set forth in the Conservation Element of this comprehensive plan.

Policy 5.2A: The City of Lakeland will protect wellfields through the continued enforcement of land development regulations which establish specific prohibitions, restrictions, standards and criteria for any proposed development which could potentially contaminate the water supply. The specific minimum zone of protection is found in Article 34 of the land development regulations. All determinations concerning wellfields and wellfield protection will be consistent with the policies set forth in the Conservation Element of this comprehensive plan.

Policy 5.2B: The City will continue to prohibit stormwater discharge directly or indirectly into any geological feature possessing unrestricted connection to the aquifer system, and to require that fill material used for sinkhole cavities be free of listed contaminants as per Article 34 of the City's land development regulations.

Policy 5.2C: The City of Lakeland will continue to meet all limiting conditions of the SWFWMD Water Use Permit.

Policy 5.2D: When the City determines it necessary to begin operation of the northeast wellfield, the land development regulations shall be amended to require use of the entire tract as a zone of protection for individual wells and preservation buffer areas.

Policy 5.2E: The City of Lakeland's wellfield protection program will be coordinated with the regulatory and land use regulations of Polk County, to the maximum extent feasible.

APPENDIX IV-ONE: POTABLE WATER

HYDROLOGICAL STUDIES
AND AQUIFER PERFORMANCE TEST

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX IV-TWO: WASTEWATER

**PRIVATE WASTEWATER TREATMENT FACILITIES
WITHIN THE LAKELAND FACILITIES PLANNING AREA**

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX IV-THREE: WASTEWATER SEPTIC SYSTEMS

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

V. RECREATION AND OPEN SPACE

INTRODUCTION

The population of the City of Lakeland increased from 70,576 residents in 1990 to an estimated 78,452 residents in 2000. With some annexation by referenda and normal annual population growth Lakeland's 2006 population estimate was 91,623 according to the Bureau of Economic and Business Research, BEBR. With continued growth and perhaps some annexation, the City's population could reach 100,000 by 2010. As a result, the demand for greater recreational opportunities and valuable open space resources has become an increasingly important issue. In the broadest sense, a recreation plan is concerned with human development and stewardship of the land by relating people to their environment and to each other. This intent has been achieved locally through the development of extensive park and recreation sites, facilities and programs.

The quality and distribution of adequate park and recreation sites is a fundamental reflection of a community's character and livability. In Lakeland, park and recreation facilities are an integral part of the City's quality of life readily evidenced by the highly accessible lakes and the many recreation sites and facilities available to the public. Nevertheless, the ease of access to these facilities is increasingly impacted by rapid population growth throughout the Lakeland Planning Area.

In order to view the supply and demand relationship of recreation and open space in the Lakeland Planning Area, an examination of those factors which exert a significant influence upon it is required. The single most important factor influencing the availability and accessibility of recreation and open space in the area is growth.

As resident population grows, demand on limited recreation amenities increases. In addition, growth in the annual number of visitors to the area exerts a substantial increase in the need for recreation and open space facilities. Perhaps the most important effect of growth is that, as the population grows, available open space areas are replaced with urban development. Thus, as growth occurs, demand automatically increases while at the same time areas which might be developed for recreation or open space are utilized for other urban uses.

Another factor which must be considered in a study of recreation and open space is the quantity and diversity of the natural resources of the area. A secondary purpose of a recreation and open space element is to consider sensitive or unique environmental areas and integrate these with the open space plan. In recent years, many communities have found it advantageous to combine efforts for preservation or protection of sensitive lands and valuable natural resources with recreation programs to provide open spaces and recreation areas. In this way, lands which are unsuitable for development or which cannot support normal urban uses without disruption of valuable

natural functions, such as flood abatement and water purification, can be utilized as public open space or recreation areas without requiring significant alteration.

A final set of influences which should be considered are socioeconomic influences which affect demand. The most significant of these is the age structure of the population; a high proportion (23% in 2000) of Lakeland residents are retired (65 and older) and have an abundance of leisure time. Other factors which relate to the demand for recreation and open space are income level, occupation and place of residence of the population living in or near the City. As these socioeconomic factors gradually undergo changes over the planning period, they will likewise cause shifts in demand for recreation facilities. Further analysis can be made after 2010 U.S. Census data is available.

In late 2006, the City adopted an internal document, assisted by a consultant, referred to as the Parks and Recreation Master Plan. This Plan laid out the City's current park and recreational facility inventory and made certain assumptions to generate a projected Phase I, 2015 Needs Plan, and a Phase II, 2025 Needs Plan. The support documentation for this element has been updated to reflect an updated inventory for Parks based upon the new Parks and Recreation Master Plan. Additionally, recommended levels of service standards have been adjusted to reflect the inventory and the objectives of the Master Plan. In a rapidly growing urban community such as Lakeland the acquisition of public sites will become increasingly more difficult and expensive over time. Funding partnerships and other revenue choices will be crucial in providing for the open space and recreation needs of the Lakeland metropolitan area.

SUMMARY OF FINDINGS

An important first step in the preparation of this Recreation and Open Space Element was an inventory of existing facilities. The City has kept an extensive inventory and analysis of Lakeland's existing recreation and open space system up to date through periodic revisions of the inventory. This inventory has been updated with data from the 2006 Parks and Recreation Master Plan. The inventory is contained in the Technical Support Document to the Comprehensive Plan as Appendix V-One to the Recreation and Open Space Element.

The primary purpose for maintaining an extensive inventory of local recreation sites and facilities is to analyze how well the existing recreation system is meeting present needs and how well it can be expected to meet future needs. This analysis can most effectively be made through an examination of local historical trends in meeting recreation demand, an analysis of local applicability of State standards, and an examination of possible level of service requirements.

LOCAL STANDARDS FOR MEETING RECREATION DEMAND

Historically, the City of Lakeland has attempted to meet local recreation demand through the provision of various types of parks and special use facilities. One of the key elements used to meet local demand has been an effort to provide one neighborhood park in each residential area. Per the 2006 Parks and Recreation Master Plan, the objective is to provide a neighborhood park, one per 6,500 persons, with a target of a one mile walking distance. With constrained available land and revenues, and substantial development continuing, this standard will be a challenge to achieve. The Parks and Recreation Master Plan also recommends one community-level park per 25,000 persons in order to serve community-wide needs, including at least one community play or sports field facility.

Multi-use recreation complexes are buildings and typically indoor facilities intended to meet yet other types of recreational demands and may include facilities such as gymnasiums, swimming pools, meeting/classrooms, weight/exercise rooms, craft areas, indoor courts, etc. in whatever combination is necessary for the general public as well as any target groups. The Scott Kelly Recreation Complex, the Lake Mirror Recreation Complex and the Simpson Park Recreation Complex are examples of multi-use recreation complexes currently serving the area. The City has an adopted standard of one multi-use complex per 30,000 persons.

The City has a wide variety of recreation and open space facilities. The City's park classification is shown on the legends of Illustration V-1 and V-2 and was updated to reflect the findings of the 2006 Parks and Recreation Master Plan. The City's park system includes scenic, neighborhood, and community parks as well as sports and field-oriented complexes and urban parks such as Munn Park or Heritage Park in the downtown area. The updated inventory also added recently-developed parks such as the Barnett Family Park. Illustration V-3, Open Space, depicts areas of surface

waters (named lakes) and preservation and conservation lands as designated on the City's future land use map and which are typically set aside to protect wetland, floodplain or other natural features.

Scenic Parks: Scenic parks are primarily passive recreation oriented parks for lakeshores, greenways, scenic views, or historical sites. These areas are generally small and attract the pedestrian rather than the motorist.

Neighborhood Parks: Neighborhood parks provide the basic recreational needs to neighborhoods. They are accessible and ideally within walking distance of the residents of each neighborhood.

Community Parks: Community parks serve a larger population than neighborhood parks, and provide more intensive or major recreational services and activities. A community park is a land-based park and is, ideally, paired with one multi-use facility.

Urban Parks: Urban parks serve the entire city and are located primarily in the downtown area. These parks often contain public art such as sculptures.

Sports Complexes: Sports complexes are specialized to primarily provide sports venues/field complexes but may include other facilities such as a multi-purpose fields and/or play equipment. A sports complex may include a stadium or clubhouse.

Special Use Parks & Facilities: Special use parks and facilities (buildings) have been created to fulfill certain unique needs of the city, such as meeting facilities.

Conservation/Preservation: Conservation/Preservation areas in some cases could support development with special conditions to reduce environmental impacts, while maintaining their natural functions typically including floodplain functions and wetland functions. The City has set aside these areas to maintain environmental quality, especially for water resource features such as water quality and filtration, flood control, recharge, wellfields, and other such purposes. Consequently, these areas will most likely remain undeveloped and are not generally accessible by the public for recreation purposes although passive recreation, trail, boardwalk or other complementary recreational uses could be proposed.

Proposed Parks: Proposed park land is public land under City ownership with plans, and in some cases, funds to develop a variety of park and recreation amenities. This land is available to ensure that the City of Lakeland meets local, state and national standards for meeting recreation demand.

The City's developed and proposed parks inventory clearly indicates a strong commitment to parks and recreation in the City of Lakeland. The above park types are augmented by other facilities used by residents and maintained by the City, but are not part of the traditional parks system such as cemeteries, museums, and libraries.

Difficulty in maintaining the historical neighborhood park standard indicates a need to reevaluate the methods used in the past to provide recreation opportunities.

MULTI-USE RECREATION FACILITIES

Lake Mirror Recreation Complex - Outdoor and indoor recreation activities and facility rentals; primary functions include programmed recreation rooms, auditorium, theatre; primary service group - seasonal residents, elderly, tourists, general public.

Scott Kelly Recreation Complex - Outdoor and indoor recreation activities; primary functions include programmed recreation rooms, swimming, weight room, tennis courts, cardio room, classrooms, game room, and billiards; primary service group - teenage youths, adults, children, primarily south side service area.

Simpson Park and Recreation Complex - Outdoor and indoor recreation activities; primary functions include programmed recreation rooms, gymnasium, crafts, weight room, swimming, tennis courts, fields, community park; primary service group – teenage youth, children, adults, primarily northwest service area.

STATE AND NATIONAL STANDARDS

Traditional recreation standards have focused on quantifiable factors such as total acreage, number of facilities of various types, amount of recreation staff time spent on individual programs or services, and amount of recreation opportunities available at different times. National recreation studies are more generalized and tend to focus on total acreage available to serve a given population. A standard of two acres of park space per 1,000 population has been found to be generally acceptable as a national standard. As of 2006 the City had 583 acres of developed parklands, and about 100 acres of proposed parks, plus additional undeveloped park or conservation lands. The City of Lakeland also owns and operates over 200 acres of special non-park recreation facilities such as cemeteries, and maintains a 200+ acre community golf course as well as Marchant Stadium for professional baseball spring training and other activities. Lakeland has one of the longest tenured relationships of any Florida community with its spring training professional baseball team, the Detroit Tigers.

The City's 2006 population estimate of about 91,623 persons taken with the City's inventory yields a current level of service ratio of about 6.4 acres per 1,000 persons. A recent city study indicated the level of service standards for parks in the vicinity averaged between 5 to 6 acres per 1,000 persons. Thus, using a proposed City level of service standard of 5.98 acres/1,000 persons, approximately 548 acres of land would be required to serve the 2006 population. Given the inventory of 583 acres, this would leave a surplus of about 35 acres of developed parklands. Estimated 2010 and future population totals are found below and discussed in reference to this proposed level of service. An increase in City revenues devoted to parkland purchase and development would be required to support the recently approved 2006 Parks and Recreation Master Plan. Potential revenue sources could include increases in the city's parks and

recreation impact fees, a portion of a property tax/millage increase and/or a utility rate increase devoted to parks.

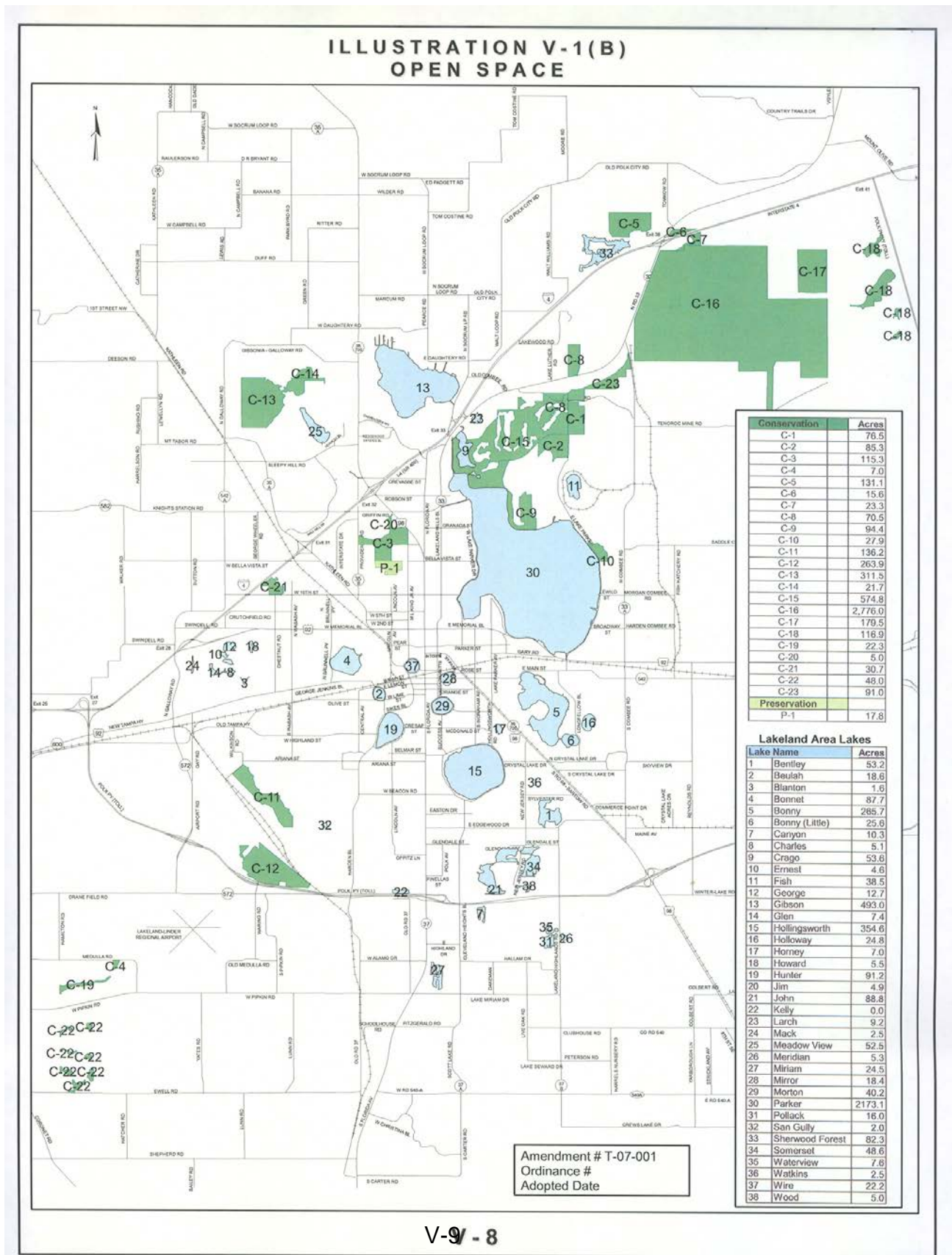
The State of Florida has prepared recreation standards and guidelines for activity-based recreation. However, the City's 2006 Parks and Recreation Master Plan utilized National Recreation And Parks Association or NRPA guidelines. Table V-1 includes the generalized population guidelines for activity-based outdoor recreation and Table V-3 indicates general State and National park standards. Based on the guidelines, the City can determine its existing need for specific types of facilities. While Table V-1 indicates the existing need for activity-based recreation facilities given the estimated 2006 population, Table V-2 indicates the future need for these facility types based upon the projected population through 2010. Given that this Element must adhere to financial feasibility, and given limited committed future revenue sources for facility development, these tables represent targeted standards that are not incorporated into the formal level of service standards in this Plan but act as guidelines for provision of future recreation services.

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Ordinance #4894
Adopted 09/04/2007

Illustration V-1
Parks and Recreation Facilities
Inner-City Map

Illustration V-2
Parks and Recreation Facilities

Illustration V-3 Open Space



**TABLE V-1
EXISTING DEMAND FOR PUBLIC ACTIVITY-BASED FACILITIES**

ACTIVITY	FACILITY	POPULATION STANDARD (NRPA)	EXISTING (2006)	SURPLUS/ DEFICIENCY
Golf	18-Hole Course	1 per 50,000	1.5 ¹	-0.3 courses
Tennis	Tennis Court	1 per 2,000	36	-9.8 courts
Baseball/Softball	Baseball/Softball Field	1 per 5,000	26	+7.7 ballfields
Football/Soccer	Football/Soccer Field	1 per 5,000 ²	11	-7.3 fields
Handball/Racquetball	Hand/Racquetball Court	1 per 20,000	8	+3.4 courts
Basketball	Basketball Court	1 per 5,000	16	-2.3 courts
Swimming	Swimming Pool	1 per 20,000	2	-2.6 pools

¹ Cleveland Heights Golf Course has 27 holes; this deficiency does not count the capacities of the numerous private golf courses in and near Lakeland, including Lone Palm, Grasslands, Highland Fairways, Bridgewater and a quasi-public Lakeland Tee course for youth play and instruction.

² 1 per 5,000 is based on the NRPA standard for soccer fields; standard for football fields is 1 per 20,000.

Source: State of Florida, Department of Natural Resources; Outdoor Recreation in Florida, 1987; City of Lakeland, Parks and Recreation Master Plan, 2006; Community Development Department, 2007.

**TABLE V-2
PROJECTED DEMAND FOR PUBLIC ACTIVITY-BASED FACILITIES**

ACTIVITY	FACILITY	POPULATION STANDARD (NRPA)	2010 NEEDS*	SURPLUS/ DEFICIENCY
Golf	18-Hole Course	1 per 50,000	1.96	-0.46 courses
Tennis	Tennis Court	1 per 2,000	49	13 courts
Baseball/Softball ¹	Baseball/Softball Field	1 per 5,000	19.6	+6.4 ballfields
Football/Soccer ²	Football/Soccer Field	1 per 5,000	19.6	-8.6 fields
Handball/Racquetball	Hand/Racquetball Court	1 per 20,000	4.9	+3.1 courts
Basketball	Basketball Court	1 per 5,000	19.6	-3.6 courts **
Swimming	Swimming Pool	1 per 20,000	4.9	-2.9 pools

* Using a modified 2010 population projection of 98,000 persons.

** An additional 3 courts were planned but not yet funded for Lake Bonny Park.

¹ Although the number of baseball/softball facilities exceeds the State Standard, local demand **exceeds** the City's present facilities and thus the Parks and Recreation Master Plan recommends 16 additional softball/baseball fields based upon NRPA standards to serve future population levels similar to estimate for 2020 population show below.

² This standard is for soccer fields & the PRMP recommends 8 more fields; NRPA recommends football fields at a 1:20,000 standard.

Source: City of Lakeland, Community Development Department, using 2010 projected population.

**TABLE V-3
GENERAL STATE & NATIONAL PARK STANDARDS**

City of Lakeland ACREAGE	City of Lakeland # OF PARKS	PARKS	SIZE IN ACRES	FUNCTION	TYPICAL FACILITIES	POPULATION SERVED	ACREAGE PER POPULATION	SERVICE RADIUS	ACCESS METHOD
184	29	Scenic Parks	1 or more acres	To serve as an active play or passive recreation area or ornamental green-space depending on the nature of area served.	Landscaping, sometimes benches, but usually no other improvements.	Up to several thousand	.5 per 1000	Depends on size	Varies
56	16* *+10 urban parks	Neighborhood Parks	2 to 15 acres; Ideally 3.75 ac.	To serve a neighborhood in a variety of passive and active recreation functions.	Benches, picnic tables, equipment; multi-purpose courts; shaded play.	1,000 to 10,000 (6,500 local target)	2 per 1000	One mile of residential area ½ mile of elementary school radius	Walk to
293	3	Community Parks	50 to 100 acres; usually 20 or more	To serve several neighborhoods in a variety of recreational activities, family functions. Often the location of recreation centers.	Benches, picnic tables, fields for organized athletics, recreation bldg., tennis cts., pool, playground equipment, benches, landscaping, multi-purpose courts, parking.	Up to 25,000	5 per 1000	3 to 4 miles or high school radius; 30 minutes drive	Drive to
0	0	Community Play (or Sports) Fields	Varies, 25+ acres One per community	To serve recreational needs of community for an athletic complex, perhaps as a portion of a community park.	Athletic complex with lighted court and field areas, parking, & may have picnic and play areas.	30,000 and up (PRMP, Vol 1, pg 91)	5 per 1000	30 minutes driving time	Bike or Drive to

Source: State of Florida, Department of Natural Resources. Outdoor Recreation in Florida. p. 101. 1987. City of Lakeland, Parks and Recreation Master Plan, 2006.

As can be seen, a deficiency exists in basketball courts. It should also be noted that the facilities list examined is not unique to the City of Lakeland. It was derived from the State of Florida former Department of Natural Resources plan for outdoor recreation in Florida. The guidelines are generalized and can be modified to meet needs specific to the local area. The City's PRMP has identified further park facility needs based upon national park standards. Additionally, the PRMP identified urban park needs such as a dog park and another skate park based upon local focus group and other data.

Using the National and State guidelines for comparison, it becomes apparent that the City of Lakeland has historically maintained a high quality parks and recreation system. In the face of growth and urbanization, the City has managed to preserve fairly adequate park acreage and provide an extensive activity-based recreation program. Clearly, however, additional developed parkland will be needed if the City is to implement the recommended 2006 Parks and Recreation Master Plan including a recommended level of service standard of one community park per 25,000 persons and one neighborhood park per 6,500 persons. A full inventory of all City parks and an associated classification for the parks is located in Appendix V-One in the Technical Support Document. Also, the Future Land Use Map (FLUM) includes a category for Recreation (R) as a land use. This land use reflects most major existing and some proposed City recreation areas.

LEVELS OF SERVICE

The ultimate goal of the extensive inventory and analysis of recreation sites, facilities and open space is to allow the City to determine future facility and land needs for recreation. This can most effectively be achieved through the establishment of levels of service -- guidelines to assist the City in determining what is acceptable in terms of service delivery and when, where and how recreation dollars should be spent. The proposed levels of service are designed to accommodate needs for both passive and active recreation.

The City of Lakeland's historic base level of service standard of 3 acres/1,000 persons has been surpassed by local governments in our vicinity. Since at least year 2000 or earlier, Polk County's level of service standard has been 6.95 acres/1,000 persons; the City of Bartow's is 5.5, and Plant City's is 5.0 acres/1,000 persons. The multi-purpose recreation center along with neighborhood and community parks have formed the backbone of Lakeland's public recreation system. In order to maintain reasonably high service delivery the proposed levels of service for passive and active recreation are as follows:

A minimum of 5.98 acres of park/open space (scenic, urban, neighborhood or community parks) per thousand City residents with 50% of this acreage in active facilities such as community and neighborhood parks.

One facility based multi-use recreation complex per 30,000 City residents.

One community park per 25,000 City residents.

One neighborhood park per 6,500 City residents.

The target for neighborhood parks should include walking distance of one mile, as may be feasible. Additionally, the 2006 Parks and Recreation Plan recommends at least one community play field (athletic field complex) for the community. A variety of existing neighborhood and community parks and three existing recreation complexes are shown in Appendix V-One in the Technical Support Document and together more than exceed these minimum levels of service identified above. The Scott Kelly, Lake Mirror and Simpson Recreation Complexes meet the general criteria for multi-use recreation complexes. The City has completed two major expansions of the Simpson Complex and major improvements at the Scott Kelly Complex. Subsequently, the City plans to evaluate the future function of the Lake Mirror Complex and is planning for one or more additional multi-use complexes in the planning period. The standard of one facility per 30,000 persons is not incremental. For example, a population of 87,500 would equal a need for 3 centers with planning taking place for a fourth center to serve a population of 120,000.

The State and National guidelines discussed earlier are the basis for determining existing levels of service. They are also useful in projecting future recreation and open space needs based on anticipated population. A combination of these guidelines allows the City flexibility in determining how and where recreation dollars should be spent to assure maximum utilization of proposed facilities. It also allows the City to respond to local demand. Some neighborhoods might have a high proportion of school age children and a resulting demand for playgrounds, ballfields, and similar facilities. Another neighborhood might have a high proportion of retirees and a resulting demand for programmed recreation which is lifestyle appropriate. By using this flexible approach to level of service the City can achieve its ultimate recreation and open space objective -- to provide the maximum level of availability and accessibility to recreation sites, facilities and open space.

Lakeland's park facility development is a significant cost factor for its park system. Beyond land acquisition, it involves preparation of the land, irrigation, plantings, play equipment, bathrooms, trails or paths, parking, pavilions and many other types of typical facilities. A 2007 parks and recreation impact fee study rendered for the City by Tindale-Oliver and Associates, Inc., includes an estimated parks facility asset value per resident of approximately \$1525 (in 2007 dollars). The study consultant recommended the City incorporate this asset value as part of its parks minimum level of service standards given it reflects a relatively high commitment to the quality of the parks provided to the citizens of Lakeland.

FUTURE RECREATION NEEDS

Future demand for recreation facilities and programs will be influenced by the size and socioeconomic characteristics of the population being served. The general population in the planning area has grown older with decreases in household and family size

indicating areawide trends toward single member households, childless couples, and couples with fewer children. As the characteristics of the population change, the City will respond to changing recreation needs. An important first step in planning for future recreation needs, however, is to make projections based on anticipated future population and locally established standards.

Projected Needs Based on Population: In an update to the report entitled Lakeland Population, the City prepared population projections through the year 2010. However, not all annexation efforts post year 2000 came to fruition. Thus, the 2006 population estimate from the State-accepted source BEBR, is 91,623, or almost 10,000 less than the aggressive annexation program estimate. Looking at the City 's original population estimate in Table II-5 of the Future Land Use Element, that estimate is much closer. Without annexation of population, the City has historically averaged an increase of about 1,000 persons per year. With such an annual average increase our 2010 population could be as low as 96,000+ or, given plans for at least 2 or more annexation initiatives, perhaps 98,000+ persons. The latter estimate will be used for 2010 estimates as a modified projection.

**TABLE V-4
CITY OF LAKELAND POPULATION PROJECTIONS**

YEAR	CENSUS AND MEDIUM PROJECTION	AGGRESSIVE ANNEXATION	2007-2010 MODERATE ANNEXATION
1990	70,576	70,576	
1995	74,626	74,626	
2000	78,452	78,452	
2005	89,562	102,018	
2010	96,396	111,233	98,000
Estimate 2015	105,000		107,000
Estimate 2020	110,000		112,000

Source: City of Lakeland, Community Development Department, 2006.

Using these projections, the City can project the amount of park space and the number of recreation complexes that will be needed to accommodate the future population. Table V-5 indicates the projected amount of park acreage needed to serve future populations based on a standard of 5.98 acres of park space per 1,000 persons.

TABLE V-5
PARK ACREAGE NEEDED TO ACCOMMODATE PROJECTED POPULATION
1990 – 2020

YEAR	POPULATION SERVED	ACREAGE REQUIRED	SURPLUS/DEFICIENCY +/-
2000	78,452	469	114
2005	89,562	535	48
2010	98,000	586	-3
2015	107,000	640	-57
2020	112,000	670	-87

Source: City of Lakeland, Community Development Department, 2006.

Using estimates of about 112,000 persons in 2020, the proposed standard of one neighborhood park per 6,500 equates to 17 parks, or one additional such park. However, this will **not** necessarily be adequate to address neighborhood or sector plan needs where residents and the City agree to a locally identified need in a specific geographic area and/or that more closely meets the target of a one-mile or less walking distance for each residential neighborhood. Thus, local needs coupled with seasonal population demands could warrant additional neighborhood parks within the planning period. Seasonal (or peak) population estimates for 2010-2020 could equate to between 19 to 21 neighborhood parks, or up to five additional neighborhood parks by 2020. This would exceed the minimum level of service standard but may more accurately reflect actual local demand and therefore should be considered in future park funding scenarios.

The proposed community parks standard of one per 25,000 persons would equate to a total of 4.5 community parks over the next planning period, i.e., requiring at least one new community park by 2020. Considering peak seasonal population, the 2020 demand could be closer to five community parks; one option in meeting that seasonal demand might be by adding in the aforementioned community play field complex. Higher than expected annexation activity or population growth would obviously require an upward revision of the park demand figures. An in-depth review of population data and formal population projections will be made in Lakeland's Evaluation and Appraisal Report due in late 2009 and carried forth in its EAR-based Plan update for 2010-2020.

Table V-6 indicates the number of recreation complexes required to serve future populations based on a standard of one recreation complex per 30,000 persons.

TABLE V-6
RECREATION COMPLEXES NEEDED TO ACCOMMODATE PROJECTED POPULATION
1990 – 2010

YEAR	POPULATION SERVED	COMPLEXES REQUIRED
2000	78,456	2
2005	89,562	2
2010	98,000	3
2015	107,000	3
2020	112,000	3

Source: City of Lakeland, Community Development Department, 2006.

Local Desires: Recreation demand is also influenced by the popularity of various kinds of recreation, the amount of leisure time available, and the amount of recreation demand created by the non-resident population. Historically, the Parks and Recreation Department responded to local desires through the provision of special programs or facilities as the demand was voiced. For example, if the Parks and Recreation Department received numerous calls requesting a ceramics class, one would be sponsored. Another approach has been to survey residents and visitors to determine which facilities and programs are desired. The survey results would be used as a guide in planning future facilities and programs. The proposed levels of service are general enough to provide adequate flexibility in meeting specific citizen demand.

Financial Feasibility: Ability to respond to future demand for parks and recreation facilities is limited by the financial feasibility of the parks and recreation capital improvements plan. As was indicated, the City of Lakeland will require 586 total (3 additional) acres of park space and 3 recreation complexes (with a fourth in planning) to support its projected 2010 population. The costs associated with this need will not immediately require the acquisition of potential park or recreation complex sites nor the construction of an additional recreation complex. However, improvements at existing park sites will likely be needed to keep parks in good condition, and a fourth recreation complex will most likely be needed by 2025 or even 2020 if seasonal population is considered. Therefore, planning for that complex, including identification of funding sources, should begin no later than 2015 to 2020 at latest. The Capital Improvements Program (CIP), a five year budget adopted with the Comprehensive Plan, as well as the Parks and Recreation Department's Operating And Staffing budgets, will outline where the City's recreation dollars will come from and where they will be spent. A potential ranking of park projects for the near-term is located in Table V-One(B), Appendix V-One. A ranking of longer term projects to meet future needs is located in Table V-One(C), Appendix V-One. Appendix V-One is found in the Technical Support Document.

ISSUES AND OPPORTUNITIES

There are several issues which must be considered in assuring the overall availability and accessibility of open space and recreation resources. Among the key issues to be considered are:

1. Utilize open space and recreation investments to support the future land use plan and overall City beautification;
2. Ensure that future needs for recreation are met as new development occurs and as the socioeconomic character of neighborhoods are identified and/or subject to change over the planning period.
3. Availability and accessibility of recreation programs to meet special needs;
4. Declining resource availability for recreation in the face of urban development and the maintenance, enhancement, and conservation of the area's natural resources;
5. Continued new park development and acquisition of City-owned parkland; and
6. Coordination between public and private entities providing recreation opportunities.

Giving consideration to each of these issues will help to ensure the maximum use and enjoyment of the City's recreation and open space system.

UTILIZE OPEN SPACE AND RECREATION IMPROVEMENTS TO SUPPORT THE FUTURE LAND USE PLAN

The City sponsors a wide range of activities designed to encourage an attractive urban environment. These efforts require close coordination with the chosen future land use plan.

Lake-To-Lake Greenway Connector One of the City's strategies to promote green space has been to implement the Lake-to-Lake Greenway Connector. This is a system of bike and foot trails circling various City lakes and City parks. The lakefront is totally public around Lakes Beulah, Mirror, Morton, and Wire and mostly public around Lakes Hollingsworth, Hunter, and Parker. The City has added a sidewalk around Lake Hunter as part of the Lake-to-Lake Greenway discussed below.

In order to promote public access to these lakefronts and other recreation amenities, the City has delineated a "greenway" connector network. The City's comprehensive Lake-to-Lake Greenway Connector is based upon four anchor community park

locations in the four quadrants of the City. The Lakeland Lake-to-Lake Greenway Connector, as depicted in Illustration V-4, is designed to promote both utilitarian and recreational uses by all residents. Thus, the Lake-to-Lake Greenway Connector links Lakeland's central city lakes and park lands, with existing and proposed routes extending from Lake John/Peterson Park on the south, to Lake Parker Park on the north, Lake Bonny on the east and Lake Bonnet on the west. There are also plans to provide pedestrian and bicycle access to the regional trail system in Polk County as depicted in Illustration V-5. This includes a link with the City Connector from Lake Parker Park east to Tenoroc State Reserve and then to the Van Fleet Trail located in Polk City. Another regional link to the City Connector will be from Lakeland to Bartow along the proposed Rails to Trails route on U.S. Hwy 98/S.R. 35/Bartow Highway, known as the Fort Fraser Trail. The southern portion of the trail, located south of CR 540/Winterlake Rd and extending into Bartow, opened for public use in late 2006. The City managed this entire project with funding from FDOT and Polk County. Additional coordination has been on-going to link the trail to other regional systems and environmental lands such as the Circle Bar Reserve (Bellato tract) south of CR 540. However, Lakeland's first priority will be to extend the trail northward into downtown Lakeland to the Lake Mirror Park area and the proposed intermodal park and ride lot located nearby.

Overall, the Greenway network includes numerous recreational amenities both passive and active, such as a designated Lake-to-Lake Bikeway route, and several City destinations including the Lake Mirror Promenade Park, the Lemon Street Promenade, Lake Hollingsworth, Florida Southern College and Johnson Avenue.

Distinctive signage along the Lake-to-Lake Greenway Connector promotes public awareness of the route and enhances safety for both pedestrians and bicyclists. Maps and brochures are also available to direct users along the route and to highlight destination points along the route.

A distinction should be made between the Lake-to-Lake Greenway Connector and the greenbelt recommended around the City. While the Lake-to-Lake Greenway Connector focuses on serving the City, a recommended greenbelt is comprised of large tracts of land to serve as natural buffer and preservation areas.

“Greenbelt” To the north, east and south of Lakeland there are thousands of acres of open space in public ownership. These tracts include parts of the Green Swamp, Tenoroc State Preserve, Saddle Creek Park, and Audubon preserve, the Lakeland effluent wetlands, and a Polk County Regional Park. The location of these open spaces relative to one another forms a portion of what could become a continuous, unbroken “greenbelt” approximately 33 miles long. The missing links needed to complete the greenbelt are generally of low development potential, being either wetlands or unreclaimed mined land.

There are immediate and long-range benefits to be derived from setting aside a corridor of open space within the urban area of Lakeland, outside the City limits. There are

recreational benefits for the public, protection of plant and wildlife habitats, water recharge and flood control. Natural reserves near urban areas are highly desirable as residential neighbors and increase the value of adjacent properties through the protection offered from encroachment by incompatible land uses as well as the value of an adjacent environmental amenity. As the urban area expands, a greenbelt would serve as an urban buffer zone offering a physical break from the development pattern and a more defined break between the urban and utility service areas of the Lakeland Urban Area and those of Auburndale, Polk City, and Polk County. The City of Lakeland must continue to pursue steps to help implement the greenbelt. While the Tenoroc State Park has been expanded by 242 acres, and a link with Saddle Creek Park located south of Tenoroc has been established, further land purchases, set-asides, and perhaps land trades need to occur to fully form the continuous greenbelt.

RECREATION REQUIREMENTS FOR NEW DEVELOPMENTS AND EXISTING NEIGHBORHOODS

As a general rule, increases in recreation demand are a direct result of increases in population. Consequently, requiring new developments to respond to the demand they place on the recreation system by the payment of impact fees, or setting aside land for park development, enhances the City's ability to continue to assure that local recreation needs are met.

Developments: In 1973, the State of Florida established the Development of Regional Impact (DRI) process. This process targets large-scale developments that have an impact beyond the jurisdiction in which they are located. Within the City of Lakeland, there are DRIs with substantial residential areas: Williams, Oakbridge, and Bridgewater. These residential areas are projected to require significant park and recreational amenities. In addition, a new proposed DRI, Lakeland Central Park, will include several wetlands and has tentatively agreed to establish a natural areas related unimproved trail system. As part of the DRI review process, regional and local agencies can assess the development's impact on existing recreation facilities and the need for additional facilities. A condition of development approval can include requirements for recreation sites and facilities to support the anticipated development population. All of the developments of regional impact with residential development in the Lakeland Planning Area include provisions for some type of park or recreation space on-site. In the Williams DRI this includes trails that could link to the City's Lake-to-Lake system via the state preserve known as Tenoroc.

In addition to DRIs, other large developments, typically in suburban and master-planned communities, have been required as a condition of zoning to provide on-site active and passive recreation areas, such as tot lots and open play areas, as well as unimproved trails along natural features. Linking trails of natural systems to other such trails is a high priority in building a larger network in the community as suggested in the 2006 PRMP. This type of requirement needs further codification in the Land Development Regulations.

Impact Fees: In January, 1988 the City of Lakeland adopted an impact fee ordinance which includes, among other things, impact fees for parks and recreation facilities. Park and recreation impact fees help the City in financing recreation improvements necessitated by new development. Park and recreation impact fees are charged to new development for recreation-related costs which the community would bear as a result of that development. These fees must be reviewed every three years, per City Commission direction and adopted ordinances.

In an effort to address growing demands and offset increased costs, the City charges user fees for the use of facilities such as tennis courts and swimming pools. Although user fees have helped to cover some of the operating costs, they have not helped with the increased demand for needed capital improvements generated by new development.

Existing Development: Existing developments which form the City's various neighborhoods must also continue to be served with adequate parks and recreational services. Since the 1991 Plan adoption, Lakeland redeveloped Simpson Park and its associated recreational complex. Dobbins Park has been redeveloped and Peterson Park has been renovated/updated, as have Woodlake Park and the Scott Kelly Recreation Complex. In addition, Lake Parker Park has been expanded to the north with an extensive, 3 mile jogging/walking path, a nature path, a rollerblade hockey rink, screened picnic pavilions, playground facilities, and restrooms. The Dobbins Park redevelopment included a brand new playground and restrooms that the neighborhood association, in partnership with the City, has agreed to maintain and secure at night. This park is immediately adjacent to Dixieland Elementary School and is made available to the school for physical education classes.

These types of park redevelopments and expansions will continue to play a vital role in the City's effort to revitalize and/or maintain the quality of life in its over 20 identified neighborhoods and nine City sectors. Quality recreational facilities available to residents is also a key factor in attracting infill development and redevelopment in neighborhoods. Finally, recreational services can serve to fulfill a social goal in offering neighborhood youth an opportunity to take part in positive physical activities and sports, such as baseball, soccer, basketball, fishing, classes in martial arts, swimming, and many other alternatives to crime, vandalism, or other negative activities. This is in addition to the other functions our Parks have added over the years, including serving as a place to display public art and sculptures. Parks and recreational facilities clearly have a direct relationship to the quality of life in our community.

FACILITIES AND PROGRAMS TO MEET SPECIAL NEEDS

The demand for recreation facilities and programs is influenced by socioeconomic characteristics of the population being served. Of these factors, age structure of the population is the most significant. A relatively high proportion of Lakeland residents are retirees, about 23% per the 2000 U.S. Census, with a higher degree of leisure time. Retiree demand is largely met by the City's numerous programs and activities, plus

private recreational facilities, such as golf courses and programs geared toward the elderly at private facilities such as the YMCA.

Programs and facilities for area youth are also important to an effective recreation system. Due to the theory that group activities keep young people out of mischief, and applying that theory to neighborhoods with the youth recreation needs, the City then has an opportunity to target those neighborhoods with specific recreation programs. Targeting entails a broad spectrum of services including recruitment, transportation to recreation complexes, development of appropriate group programs and supervision of individuals and activities. The need for youth recreation programs can be identified once redevelopment activities begin in a specific neighborhood. The need will strongly correlate with the observed number of youths idle/loitering in the area and the number of juvenile arrests in the area. An addition to Adair Park is a skateboard facility where City youth can safely practice skateboarding, including "tricks." However, the Parks Department has identified the need for sports fields to play and practice upon as a high priority need for local youth sports leagues – one requiring a community park-sized facility. The 2006 PRMP essentially identifies this as a community play field, or an athletic complex to serve the community much like a community park (see Table V-3).

RESOURCE AVAILABILITY AND PROTECTION

Another significant issue affecting the City's ability to provide adequate recreation opportunities is resource availability. As the City becomes more densely populated, less land will be available for park expansion even though park needs will continue to grow with the City's population, with the exception of annexed areas yet undeveloped. In light of market forces which continue to increase the cost of land and reduce the supply of suitable recreation sites, the City must continue to give consideration to early acquisition of recreation sites. Additionally, acquisition of unique natural areas and accessways to lakefronts for public use should be given consideration before urban development precludes the possibility of acquisition. In fact, natural resource and wildlife benefits/conservation from lakefront acquisitions, such as Lake Bonny and proposed Lake Bonnet, are very important.

An important long range planning concern which should be considered is the maintenance and enhancement of the area's natural resources. Use and enjoyment of these resources is an integral part of the regional recreation and open space system. If natural resources are allowed to deteriorate, the quality of the entire system is greatly reduced.

With increasing urban development consuming vast amounts of land, acquisition of available land to preserve for open space or future recreation facilities becomes more important. Many communities have been successful in acquiring small tracts of land of little value or utilizing small tracts of City-owned land for development as parks. Although planned recreation improvements might be far from the development stage, reservation of adequate sites should be carried out at an early stage. This long-range approach will result in appropriate site acquisition and efficient overall system

development and design of Lakeland's recreation resources. In fact, this strategy has already been used by Lakeland's Parks Department as noted below.

Conserving and protecting the natural resources and functions of Lakeland's lakes, including lake shoreline, water quality of the lakes, wetlands, and associated wildlife resources has been a continuing goal of the City's park land acquisition and development plans. This includes purchase of the property located on west Lake Bonny for which development plans include preservation of shoreline wetlands and a natural habitat walkway as well as more traditional recreational amenities further away from the shoreline. An existing park located in west Lakeland near the Polk County Parkway, has been designated as a conservation area on the Future Land Use Map due to existing wetland features of the site; the site is undeveloped. Another proposed park land acquisition is located on east Lake Bonnet which includes an existing bird rookery, i.e. nesting colony, which has been documented by the Florida Game and Fresh Water Fish Commission in their "Florida Atlas of Breeding Sites of Herons and Their Allies, 1986-89." Thus, the City has a unique opportunity in pursuing park land acquisitions and quality park land development: to conserve local lakes and their associated natural resources, allowing the resources to be protected from urban development, while providing additional passive and active recreational opportunities for City residents.

CONTINUED PARK DEVELOPMENT

As always, funding the site development of additional parks will be a challenge. The City owns potential future park sites, including in the former Bridgewater DRI area south of SR 33, near downtown (Freedom Park) and Kells park in southeast Lakeland. The City completed Lake Bonny Park in about 2001. This park serves Lakeland Senior High School, but also serves the public. The Lake Bonny Park includes a plant nursery, concessions buildings and three athletic field areas, one each for soccer/football, baseball and softball; basketball courts may be added in the future. A boardwalk near the wetlands and lakeshore has also been provided, as well as a picnic and tot lot/playground area. A joint-use agricultural center/greenhouse has been constructed for use by Lakeland High School, and there are special arrangements for use of the athletic field areas for school sports.

COORDINATION BETWEEN RECREATION PROVIDERS

An important issue in recreation planning is cooperation among the entities responsible for the provision and planning of recreation sites and facilities. The City of Lakeland should continue to work closely with the School Board, the County, and private developers to maximize recreation opportunities.

As of 1998, Polk County agreed to establish a countywide library system and, with State grant funds, City libraries were able to offer non-city residents library cards at no charge. County residents previously had to pay up to \$35.00 per year for a City library card. As a result of this new, networked library service, services demand in terms of

new library cards issued has risen sharply at the Lakeland Main Library. The City is also expanding access to library services via “e-libraries” or “storefront libraries” located convenient to suburban areas within shopping centers, near schools or other areas and allowing residents to order books for future pick up via computer.

The importance of school recreation facilities in meeting demand is significant. Area schools provide a great number of conventional recreation facilities such as softball/baseball diamonds, tennis and basketball courts, and football/soccer fields. The City parks department uses 8 school facilities for summer or weekend activities. If these facilities were not available to serve area recreation needs, both the City and County systems would be overtaxed. Likewise, the School Board uses City facilities for football, swimming and other activities at the two City pool and recreation complexes, Bryant Stadium, Henley Field and several neighborhood parks. The use of formal or informal joint use agreements will help to offset the increased recreation demand of the area's growing population. Because recreation facilities at area schools play an important role in the local open space and recreation system, the Lakeland Parks and Recreation Department works closely with the School Board in utilizing school facilities to provide structured recreation programs for local residents. These efforts should be continued and expanded to assist in meeting future recreation needs.

Cooperation is also needed between the City and County in meeting the recreation needs of area residents. Recreation has traditionally occupied a low position among other priorities in Polk County budgets. As a result, many of the planning area citizens living outside the City limits of Lakeland have relied on City recreation programs and facilities for their recreation needs. However, future conservation-based parks have been purchased by the Polk County Environmental Lands Program to protect natural resources, and, where possible, to allow recreational uses. Also, Polk County enacted a special taxing district for unincorporated areas in 2006 in order to fund parks.

In the summer of 1998, Polk County and all the incorporated areas, including Lakeland, began working together to develop a single master plan for parks and recreation. A master plan was designed to respond to future recreation needs for the entire county over a ten-year period. This Plan indicated the County was best positioned to provide regional parks. While the County's special tax represents new funding potential for parks and recreation, the recreation needs of the southwest or northwest Lakeland/unincorporated Polk area must financially compete with other needy areas of Polk County such as in Wahneta and the “4 corners” area in northeast Polk.

Availability of parks to City residents is a priority and restricting the customer base may become necessary. To the extent that City facilities serve people in the unincorporated areas, user charges have been used to recoup some of the costs of providing recreation services above the level needed by City residents. Theoretically, the higher fees are also intended to discourage non-City use to a degree which allows all interested City residents to participate in City programs. This is an issue which the new county master plan and new County park expansions can address.

In addition to public entities, the private sector also plays a key role in the provision of recreation opportunities. Beyond the typical private recreation facilities, i.e. cinemas, theaters, bowling alleys, health spas, etc., private developments can provide valuable passive, open space areas as well as on-site recreation including tot lots. The City works closely with developers to ensure that new residential developments are designed to provide adequate recreation space to support the proposed population.

Quasi-public entities like the YMCA, which offers programs and classes to non-members at a higher rate than members, also assist in serving recreational needs. The central Lakeland YMCA is located near Peterson Park and offers T-ball, soccer, swimming classes, gymnastics, martial arts, and summer youth programs to members and non-members. The North Lakeland YMCA, located on Sleepy Hill Road, opened its doors in 2005, and will include a swimming pool in the future.

Illustration V-4
Lake-to-Lake Greenway Connector

Illustration V-5
Polk County Trail System

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to the recreation and open space system. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the attainable and measurable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Recreation and Open Space Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes, and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan. This Element has been updated to reflect the inventory and some of the findings of a 2006 City-approved Parks and Recreation Master Plan, a locally-initiated plan.

GOAL: To ensure adequate recreation and open space opportunities for all sectors of the community and enhance the quality of life Lakeland offers through the development of attractive parks, recreation facilities, and open spaces.

Objective 1: Provide a supply and variety of recreation opportunities to meet public need and respond to adopted level of service standards within the planning period.

Policy 1A: The City of Lakeland will adhere to minimum level of service standards for the provision of recreation sites and facilities including a minimum 5.98 acres per 1,000 residents, 50% of which shall be in active park space (e.g., scenic, neighborhood, or community)

- one recreation complex per 30,000 persons;
- one community park per 25,000 residents; and
- one neighborhood park per 6,500 residents.

Based on supporting data within the City's 2007 parks and recreation impact fee study, the City has established and will maintain an overall estimated asset of \$1,525 per resident (expressed in 2007 dollars) of City-owned parks and recreation land and facilities.

These are minimum standards only. Additional local needs and demands are recognized in the City's long-term Parks and Recreation Master Plan and represent local objectives which are intended to help our community meet its vision as a world-class community. Available funding to implement these objectives will determine the scope and rate of the Master Plan implementation.

Policy 1B: The City of Lakeland will schedule identified future recreation facility needs and correction of existing deficiencies in the Capital Improvements

Program and will update the program annually to reflect completed projects and newly identified needs.

Policy 1C: The City will strive to establish new neighborhood parks as per identified needs in each approved neighborhood and/or sector plan, including the recommended walking distance of approximately one mile, as per the 2006 adopted City Parks and Recreation Master Plan.

Policy 1D: The City of Lakeland will ensure that access is provided to all City parks, including lakeshores.

Policy 1E: The City of Lakeland will continue to implement the early acquisition and preservation of sites suitable for recreation and open space use with planned acquisitions reflected in the five year capital improvements program. Priority for funding shall be given to sites which meet a recreation need and which protect and/or improve natural resources, including wildlife, wildlife habitat, shorelines, and /or water quality.

Policy 1F: Plans for new and/or expanded redeveloped City parks shall consider inclusion of educational exhibits, wildlife observation areas, lakefront or other natural area boardwalk, and nature trails, where appropriate.

Policy 1G: The Lakeland adopted land development regulations shall continue to include specific definitions and standards for the incorporation of lands targeted for recreation and open space. New standards for on-site recreation facility provision within suburban residential developments shall be developed by or in 2008.

Objective 2: Continue to improve coordination with public agencies and the private sector to encourage the efficient and equitable provision of recreation facilities and opportunities.

Policy 2A: The City of Lakeland will coordinate activities with the State of Florida, Division of Parks and Recreation, Polk County School Board and with Polk County to ensure that available recreation program opportunities are maximized. The City will also continue to exercise joint use agreements for the development of neighborhood parks on or adjacent to School Board property, such as the Southwest Middle School site.

Policy 2B: The City of Lakeland will continue to pursue funding through recreation grants, loans, and other programs to assist in meeting local recreation needs.

Policy 2C: The City will continue to pursue funding partnerships and new revenue options which may allow full implementation of the Lakeland Parks and Recreation Master Plan recommendations, as financially feasible. Co-location of parks, recreation facilities, libraries, and civic spaces shall be a continuing strategy in forging

economically effective partnerships with other agencies in order to achieve Lakeland's community vision and objectives.

Objective 3: Continue to provide incentives to encourage the provision of recreation facilities in proposed future developments.

Policy 3A: The City of Lakeland will continue to require new residential developments to provide for the recreation demand created by that development through the implementation and updating of recreation impact fees.

Policy 3B: The City of Lakeland will continue to require new single family and multi-family developments to include appropriate open space and/or recreation facilities within the development. All residential developments located 1.5 miles or more from an existing public park shall provide a variety of on-site active recreation facilities to serve the expected demographic groups within the project. Open play areas should also be provided in residential developments of at least 25 acres. Unimproved trails providing access to natural site features shall be incorporated where feasible and shall be linked to other pedestrian and bicycle facilities within the development. Trails systems provision will be given highest priority where there are potential linkages to existing or planned systems adjacent to the subject property. Specific implementing requirements to this policy shall be included in the City's land development regulations by 2009.

Policy 3C: The City of Lakeland will require Developments of Regional Impact and other large developments to reserve adequate land for parks and recreation facilities with priority placed upon connectivity through and to the City Greenway and other connector systems in place or planned.

Objective 4: Improve bicycle and pedestrian access to designated recreation facilities through the ongoing implementation of the Lake-to-Lake Greenway Connector.

Policy 4A: The City of Lakeland will provide reasonable accommodations for handicapped and pedestrian access to new recreation sites and facilities to the maximum extent feasible.

Policy 4B: The City of Lakeland will continue to utilize the design plan for the Lake-to-Lake Greenway Connector to implement bicycle and pedestrian access improvements to existing recreation sites and facilities and will continue to fund pedestrian and bicycle improvements within subsequent five year capital improvement budgets, connecting residential areas to the urban core and the City's park system.

Policy 4C: The City will continue to promote public awareness of and access to the Lake-to-Lake Greenway Connector through signage, maps of the system and other appropriate means.

Policy 4D: The City, LEDC and other agencies such as the Chamber of Commerce shall continue to promote an annual or more frequent bike/pedestrian event

which would use portions of the Lake-to-Lake Greenway Connector, such as the annual Lakeland Urban Mountain Bike Race event.

Policy 4E: Continue to pursue funding and implementation options which achieve the extension of the Ft. Fraser Trail system into downtown Lakeland as well as options for enhancing intermodal connectivity to this trail and the City's larger Greenway trail system. Continue to pursue feasible regional linkages to the Ft. Fraser trail system and the City's Lake to Lake Greenway system. In addition to recreational opportunities, explore functional transportation connectivity opportunities for bicycle and trail systems.

Objective 5: Through an ongoing assessment and improvement program, identify and improve parks, open space and other recreation assets which, due to age or general deterioration, have declined.

Policy 5A: The Parks and Recreation Department will continue to conduct an ongoing maintenance program of all park and recreation facilities. Funding of operations and maintenance needs shall be recognized as critical to retaining a high quality parks system.

Policy 5B: The City of Lakeland will monitor all facilities to determine that they meet updated safety standards and the Americans with Disabilities Act.

Objective 6: Utilize public investments in right of way beautification, street trees, parks and open spaces to influence existing land use and implement the future land use element of this comprehensive plan.

Policy 6A: The City of Lakeland will continue to develop and implement the City Beautification Program and the Entrance Beautification Program by coordinating their efforts with the Chamber of Commerce, local businesses and the Florida Department of Transportation. This would include, for example, such highway beautification projects as Bartow Highway, Sikes Boulevard, and Kathleen Road.

Policy 6B: The City of Lakeland will maintain and expand recreation amenities in the central city as part of an overall strategy to strengthen older neighborhoods. This shall be done in coordination with sector plans and neighborhood plans, specifically coordinating with the areas prioritized for neighborhood redevelopment efforts.

Policy 6C: The City will support the implementation of the Lake Mirror Park Plan, which expands and redevelops the historic Lake Mirror Park, with appropriate and compatible adjacent land uses.

APPENDIX V-ONE

CITY OF LAKELAND COMMUNITY AND NEIGHBORHOOD PARK CLASSIFICATION SYSTEM AND INVENTORY

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to the recreation and open space system. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the attainable and measurable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Recreation and Open Space Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes, and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan. This Element has been updated to reflect the inventory and some of the findings of a 2006 City-approved Parks and Recreation Master Plan, a locally-initiated plan.

GOAL: To ensure adequate recreation and open space opportunities for all sectors of the community and enhance the quality of life Lakeland offers through the development of attractive parks, recreation facilities, and open spaces.

Objective 1: Provide a supply and variety of recreation opportunities to meet public need and respond to adopted level of service standards within the planning period.

Policy 1A: The City of Lakeland will adhere to minimum level of service standards for the provision of recreation sites and facilities including a minimum 5.98 acres per 1,000 residents, 50% of which shall be in active park space (e.g., scenic, neighborhood, or community)

- one recreation complex per 30,000 persons;
- one community park per 25,000 residents; and
- one neighborhood park per 6,500 residents.

Based on supporting data within the City's 2007 parks and recreation impact fee study, the City has established and will maintain an overall estimated asset of \$1,525 per resident (expressed in 2007 dollars) of City-owned parks and recreation land and facilities.

These are minimum standards only. Additional local needs and demands are recognized in the City's long-term Parks and Recreation Master Plan and represent local objectives which are intended to help our community meet its vision as a world-class community. Available funding to implement these objectives will determine the scope and rate of the Master Plan implementation.

Policy 1B: The City of Lakeland will schedule identified future recreation facility needs and correction of existing deficiencies in the Capital Improvements

Projected Needs Based on Population: In an update to the report entitled Lakeland Population, the City prepared population projections through the year 2010. However, not all annexation efforts post year 2000 came to fruition. Thus, the 2006 population estimate from the State-accepted source BEBR, is 91,623, or almost 10,000 less than the aggressive annexation program estimate. Looking at the City 's original population estimate in Table II-5 of the Future Land Use Element, that estimate is much closer. Without annexation of population, the City has historically averaged an increase of about 1,000 persons per year. With such an annual average increase our 2010 population could be as low as 96,000+ or, given plans for at least 2 or more annexation initiatives, perhaps 98,000+ persons. The latter estimate will be used for 2010 estimates as a modified projection.

**TABLE V-4
CITY OF LAKELAND POPULATION PROJECTIONS**

YEAR	CENSUS AND MEDIUM PROJECTION	AGGRESSIVE ANNEXATION	2007-2010 MODERATE ANNEXATION
1990	70,576	70,576	
1995	74,626	74,626	
2000	78,452	78,452	
2005	89,562	102,018	
2010	96,396	111,233	98,000
Estimate 2015	105,000		107,000
Estimate 2020	110,000		112,000

Source: City of Lakeland, Community Development Department, 2006.

Using these projections, the City can project the amount of park space and the number of recreation complexes that will be needed to accommodate the future population. Table V-5 indicates the projected amount of park acreage needed to serve future populations based on a standard of 5.98 acres of park space per 1,000 persons.

VI. CONSERVATION

INTRODUCTION

Effective natural resource conservation mechanisms result in the careful management of our resources while generating the maximum possible social benefits from these resources. Public awareness of the decline in natural resources is one of the first steps in developing programs targeting their preservation. For example, Lakeland has erected educational kiosks at several of the City's most popular lakeside parks to educate the public about the wildlife, habitat and plant species found along these lakes. Lakeland also coordinates with local schools for environmental assistance in creating demonstration projects such as the one at Lincoln Elementary. The City Parks and Recreation Department assisted Lincoln in creating a mini-ecosystem of the Central Florida hydrological conditions; the school now has a mini-size spring/lake/stream/swamp and emergent marsh area on school grounds.

The purpose of the Conservation Element is to promote the conservation and preservation of natural resources. Traditionally, conservation areas have been defined as lands which (while maintaining their natural functions) can support some extent of development as long as special conditions are made in order to reduce adverse environmental impacts. Preservation areas, on the other hand, are areas vital to the maintenance of environmental quality and are the least tolerant to changes caused by development. Preservation areas include Class I waters (potable public surface water supplies), freshwater swamps and marshes, and public or semi-public areas dedicated to the maintenance of natural systems or habitats. Local examples of these areas include the "North Lakeland Swamp" (located west of Martin Luther King, Jr. Boulevard) and the Saddle Creek Audubon tract, both preservation areas.

According to Rule 9J-5, Florida Administrative Code, conservation elements prepared by local governments must address: 1) Soils; 2) Vegetation and wildlife communities; 3) Water needs and resources; 4) Rivers and lakes; 5) Wetlands and floodplains; 6) Air quality; and 7) Minerals. This Conservation Element envisions improvement in the protection of birds, fish and animals which are in turn dependent upon the preservation and maintenance of aquatic and terrestrial habitats. Strategies are presented for conserving and managing soil, floodplains, lakes and vegetation pursuant to these objectives.

SUMMARY OF FINDINGS

An important first step in the preparation of this Conservation Element was an inventory and analysis of existing natural and wildlife resources in the Lakeland Planning Area. The City's 1990 inventory and analysis is available in the report entitled Lakeland Conservation, portions of which were updated in 1997 in the City's Evaluation and Appraisal Report. The following summary includes data from those reports. Appendix VI-One in the Technical Support Document also includes an area bird count for 1996.

SOILS

The local office of the USDA Soil Conservation Service performs soil surveys for Polk County, including the Lakeland area. The survey includes evaluation of soil suitability and limitations for numerous typical urban and rural uses; e.g., shallow excavations, dwellings without basements and septic tank absorption fields. From the information provided by the survey, the suitability of a certain soil for a particular use can be derived and needed conservation measures in regard to soil use can be determined. Illustration VI-1 indicates generalized soil associations. Sixty soil types have been identified, not including all urban land complex soils which are so mixed that they are not rated for most items in the soil survey (such as suitability for development, for use of septic systems, or for various types of agriculture).

The conversion of land to urban uses often requires extensive changes to the land. This reshaping of land affects drainage, stream flow and greatly increases the rate of soil loss or erosion. Much of the erosion occurs during the construction period, but areas downstream from a construction site may erode more after construction is completed because of a more rapid runoff from impervious pavement, parking lots or compacted soil. Adverse effects of erosion include gullied slopes, undercut pavements and pipelines, and clogged storm sewers. The loss of valuable topsoil also adversely affects vegetative communities. Other damages occur to stream channels downstream as sediment increases and reduces the stream's carrying capacity. Once sediment reaches lakes, it is a serious source of pollution, degrading the quality of water and reducing basin storage capacity.

Basic requirements for an effective erosion and sediment control program on building sites include saving vegetation, installing storm drains and basins early in the process, an engineering design to accommodate increased runoff following development, and using best management practices (BMPs) during construction to prevent soil erosion. These BMPs include using hay bales, fabric, wire mesh, or other barriers to keep soils on-site from being washed or pushed off-site during construction.

Unreclaimed mined areas which exist in the urban area present a unique soil type and conservation opportunity. Much of the unreclaimed lands include soils which are mostly clays/slime and overburden from the mining process. The land is often scattered with open pits, some of which are water-filled. Much of the soil is wet and unstable/has poor load-bearing capacity. While the poor soils and rough terrain leave little potential for

development, their acquisition by governmental units or natural preservation groups would provide an opportunity to create a permanent open space area and future habitats for wildlife and plant communities. Some of these areas could also be used for water retention. Many of the lands within the Greater Lakeland Area Proposed Greenbelt (located east of Combee Road, along Saddle Creek and south to the County's Carter Road Regional Park) include previously-mined areas (see Illustration VI-13 in the Issues and Opportunities section).

VEGETATIVE AND WILDLIFE COMMUNITIES

Prior to urbanization, there were three principal vegetative communities in the Lakeland Planning Area: 1) Pine flatwoods to the north and northeast; 2) Mixed pine/oak forests extending from Lake Parker to the Hillsborough County line; and 3) Hardwood forests near lakes and wetlands, and in floodplains. Today, the most extensive vegetative community in the Lakeland Planning Area is categorized as grassland/pasture for agriculture interspersed with hardwood hammocks and swamps, surface waters and wetlands, plus some dry prairie areas. The pine and oak communities are generally grouped as upland flatwoods while much of the hardwood forests are in lowlands and wetlands. These communities can be further subdivided into specific habitats with some of these supporting threatened or endangered plants and animals. An example in the Lakeland area is the Sand Pine Scrub ecosystem located east of Lake Deeson. Illustration VI-2 indicates the generalized location of vegetative communities, excluding the impacts of urbanization. Illustrations VI-3, VI-4, and VI-5 depict areas known to or having the potential of supporting species listed as endangered, threatened, or of special concern. These areas should be subjected to close environmental scrutiny when development is proposed.

Lakeland's Land Development Regulations, Article 34 "Natural Resource Protection," requires a biological inventory of a development site be performed in response to a documented presence or sighting of a listed species or where the size and/or ecological diversity of the site warrants such an inventory. All site plans submitted to the City must identify the extent and location of any protected habitat including protected lakeshores, jurisdictional wetlands, listed species, fisheries and areas designated as "Conservation" on the City's Future Land Use Map (per Section 34.04.03.01 of the LDRs.) Failure to indicate these areas on the site plan may result in rejection of the site plan.

Table VI-1 lists the endangered or threatened plants and animals found within the Lakeland Planning Area along with the vegetative community where they are most often found. A narrative description of the vegetative community types is included in the 1990 Lakeland Conservation support document for the Comprehensive Plan.

ILLUSTRATION VI-1
Lakeland Area Soils

ILLUSTRATION VI-2
Lakeland Urban Land Cover

ILLUSTRATION VI-3
Priority Wetlands for Listed Species

ILLUSTRATION VI-4
Strategic Habitat Conservation Areas

ILLUSTRATION VI-5
Listed Species Occurrences

**TABLE VI-1
ENDANGERED, THREATENED OR SPECIES OF SPECIAL CONCERN
IN LAKELAND PLANNING AREA**

SPECIES	VEGETATIVE COMMUNITY	LISTED AS WETLAND DEPENDENT
Mammals		
Florida Mouse	Sand Pine Scrub	
Sherman's Fox Squirrel	Long Leaf Pine/Turkey Oak Hills	
Reptiles		
American Alligator	Swamp Hardwoods/Cypress Swamps	X
Eastern Indigo	Sand Pine Scrub	
Short Tailed Snake	Sand Pine Scrub	
Gopher Tortoise	Turkey Oak Hills	
Birds		
Burrowing Owl	Turkey Oak Hills	X
Wood Stork	Lakes, Swamps & Wetlands	X
Snowy Egret	Lakes, Swamps & Wetlands	X
Little Blue Heron	Lakes, Swamps & Wetlands	X
Tricolored Heron	Lakes, Swamps & Wetlands	X
White Ibis	Lakes, Swamps & Wetlands	X
Bald Eagle	Wetland & Forested Uplands	X
Limpkin	Lakes, Swamps & Wetlands	X
Sandhill Crane	Freshwater Marshes, Wetlands, Dry Prairie/Grasslands	X
Plants		
Blazing Star	Sand Pine Scrub	
Dayflower	Sand Pine Scrub	
St. John's Wort	Sand Pine Scrub	

Source: FGFWFC, 09/94, and Lakeland Community Development Dept.

WATER NEEDS AND RESOURCES

The City of Lakeland water service area extends well beyond the corporate limits of Lakeland. The raw water supply for this service area is drawn from the Floridan Aquifer through two wellfields. The Northwest Wellfield draws from a network of 13 deep wells and supplies the T. B. Williams Water Treatment Plant. The Northeast Wellfield draws from 5 deep wells and supplies the C. W. Combee Water treatment Plant. Illustration VI-6 indicates the Northwest Wellfield and its zones of protection. Illustration VI-7 indicates the Northeast Wellfield and its zones of protection. Individually, the Northwest Wellfield is *permitted* for 28.0 million gallons per day (MGD); the Northeast Wellfield is *permitted* for 4.0 MGD. Although, collectively, the Water Use Permit value is only 30.2 MGD, with an average peak monthly use of 36.24 MGD. This new 6-year Water Use Permit was issued March 25, 2008. Average daily consumption in 2007 was 24 MGD. For the year 2010 the average daily consumption is projected to be approximately 26 MGD with an average peak monthly use of about 31.5 MGD. By 2020 the average daily consumption will increase to approximately 31 MGD with an average peak monthly use of 37 MGD.

To meet future water demands and maintain a protected wellfield, Lakeland established the new Northeast Wellfield in the northeast section of the Planning Area and

constructed the C. Wayne Combee Water Treatment Plant. The water treatment plant began operation in October 2005 providing redundancy for the potable water system and to serve water pumped from the NE Wellfield.

Limited options for alternative water supply exist within the Polk County area and Lakeland Planning Area. Desalination of ocean or salt water is not an option due to Lakeland's geographic location. Aquifer storage recovery remains somewhat experimental and is not considered cost feasible. Additionally, Aquifer storage recovery may be subject to some environmental concern in the Green Swamp Area of Critical State Concern given that it is the focal point of the potentiometric high for groundwater and feeds several surface waters that in turn serve other areas with drinking water.

The substantial commitment of wastewater effluent or reuse water to the Lakeland Electric power plant system significantly limits the City's ability to further utilize treated wastewater as an alternative to existing potable water sources. The primary option to reuse water for power plant cooling is groundwater; therefore, employing reuse water as a substitute at the power plant has been and is a very valid water conservation action.

An alternative water source under consideration is the wastewater effluent reuse water from other suppliers. That is, accepting public access quality reuse from Polk County Utilities and/or the City of Mulberry to provide lawn irrigation to new residential developments within the southwest sector of the City's service area. The City and Polk County signed, in late 2007, a cooperative agreement to accept their effluent to the City's effluent wetlands site given the County expansion of the Imperial Lakes area wastewater plant. Mulberry and the County both need a place to send their additional effluent in order to comply with FDEP permitting issues. The City's effluent wetlands system feeds the Alafia River which in turn feeds potable water sources for Hillsborough County. However, the added effluent flows to the City has allowed Lakeland to require reuse line installation by private residential developers in the SW Lakeland area for future reuse flows during dry periods. In order to maximize available reuse water during dry periods, during wet season months the City might be able to store some of effluent reuse water in a reservoir located at the City's effluent wetlands property if, after proper analysis, that concept proves feasible.

The primary water supply alternative or option for the City of Lakeland is that of additional water conservation measures, rules and programs. The City has had water conservation programs, both supply- and demand-side, since 1987. The City of Lakeland's conservation program currently consists of the following elements: rates and fees, water audits, co-funding projects, education initiatives, citywide conservation efforts, and enforcement of water restrictions.

Possibly the most important part of Lakeland's conservation program is the utilization of rates and fees effectively beginning in 1998. Then in 2006, the utility restructured the inverted block water rates from 3 to 4 "tiers" to further encourage conservation using a model provided by the Southwest Florida Water Management District (SWFWMD). The lowest tier only received an increase equivalent to current operating cost while the rate

on the top tier was set to be punitive to encourage customers to use less through economic disincentive.

Another conservation measure utilized by the City is the adjustment of commercial impact fees to appropriately reflect actual usage. Commercial customers applying for water service pay impact fees based on projected use. Over time, some customers may exceed the capacity that was reserved. To solve this issue, an ordinance was passed in 2005 that allows the utility to bill increased impact fees to customers who exceed the capacity reserved through the original impact fees. The Water Utility Department audits the commercial customer's water use vs. paid impact fees. Over an initial eighteen month period, the water utility reviewed customer usage and issued advisories. In January of 2007 customers who had not reduced their water usage received a payment request for additional impact fees.

All Lakeland customers are entitled to free water audits from the city. In the past, water audits were mainly conducted when bills were high due to leaks. Water Utility employees and Customer Service representatives are now encouraging customers to request audits whenever a customer asks for more details about water usage. The previously-mentioned impact audit caused several commercial customers to request audits as well.

When audits are conducted, the customer is given detailed information on how their water dollars are spent, tips for water conservation and notification of any suspected leaks in the plumbing.

Pursuing co-funding grants offered annually by SWFWMD is an important program that brings the tax dollars paid by Lakeland residents back into the area economy. Applications are submitted in December for the budget year starting in the following October. For 2007, Lakeland has requested funding for three projects:

1. Ultra Low-Flow Toilet Rebates or Vouchers - Customers with homes built prior to 1995 will be able to receive a rebate or voucher of up to \$100 for replacing an existing toilet using 4 gallons per flush or more. A maximum of two per household. Multi-family dwellings such as apartment buildings will be offered direct replacement at no cost if the entire facility is completed at one time. This is a five year project with a goal of replacing 30,000 toilets.
2. Plumbing Retrofit Kits – Customers living in homes constructed prior to 1995 will be given retrofit kits free of charge. The kit will contain low-flow aerators for the kitchen and bath, a shower head, leak detecting dye tablets and an automatic shut off handle for a garden hose. This is a five year project with a goal of issuing 15,000 kits.
3. Pre-Rinse Spray Valve Replacements – Valves will be offered to all commercial customers who have pre-rinse sinks in facilities built prior to 2002. Restaurants, hospitals, nursing homes, colleges and schools all use

these devices. All valves will be offered free of charge with direct replacement. It is estimated that there are 300 valves which need replacement. This is a one year project.

The residential programs have the potential of saving 58.69 million gallons of water each year after completion. The commercial project will save an estimated 21.9 million gallons per year.

Educating the public is a high priority for the City's water conservation plan. City Water Utilities staff carries out presentations to a number of local venues and organizations such as schools (Public and Private), neighborhood associations, civic groups, and public events. Furthermore, various other departments within the City have initiated conservation projects that have the same objective. Notably, Lakeland Parks and Recreation Department has initiated three conservation efforts that have aided in Water Utilities' conservation efforts:

1. the irrigation of the public recreation area around Lake Morton, converted from a potable water source to lake water;
2. the use of Florida-Friendly landscaping wherever possible; and,
3. the investigation of shallow aquifer wells as a source of irrigation water for major parks throughout Lakeland.

Additionally, Lakeland Facilities Maintenance Division is conducting an efficiency audit on all city facilities and plans to implement recommended changes to make the building more resource-efficient.

In order to inform the public of SWFWMD conservation methods or restrictions, the Water Utility Department communicates using a number of different methods such as the media (local newspaper, government sponsored television and radio), mass mailings (bill stuffers), and electronic communication (City of Lakeland's Website and Southwest Florida Water Management District's Website).

As required by SWFWMD, the Water Utilities Department mails compliance letters to violators in response to calls from the public and issues citations to customers who are caught in the act of violation. Starting October 1, 2007 Lakeland Water Utilities will begin proactive enforcement patrols for irrigation violations. A detailed listing of the above mentioned strategies is found in Appendix VI-Two in the Technical Support Document.

The City has had water conservation programs, both supply- and demand-side, since 1987. Supply-side programs include metering strategies, water reuse and leak control. Demand-side programs include pressure reductions, rate structuring and education programs. A detailed listing of both strategies is found in Appendix VI-Two in the Technical Support Document.

WELLFIELD PROTECTION

The City had a consultant study completed in 1992 which indicated the 5 and 10 year travel times surrounding the wells at the two wellfields. A five year travel time area is an area in which an associated list of chemicals would take approximately five years to travel to the wells. These travel time areas are only informational. In terms of regulatory protection, the City of Lakeland revised its land development regulations in early 1996 to widen the radius of protection around the wells from 300 feet to 500 feet--see VI-6 and VI-7 for the Northwest Wellfield and the Northeast Wellfield and Zones of Protection. This radius establishes an area in which certain uses are prohibited and others are allowed only if the user submits a plan for review by the Water Division.

RIVERS AND LAKES

The Lakeland Ridge acts as a divide between three major watersheds. Water draining from the ridge area drains toward either Blackwater Creek and the Hillsborough River, Poley Creek and the Alafia River, or Saddle Creek and the Peace River. In addition to the Saddle Creek subbasin, water flows through the Hollingsworth/Banana Lake subbasin to the Peace River. (See Illustration VI-8, Natural Drainage.)

While these creeks and rivers convey water downstream, various lakes, wetlands and floodplains act as retention or detention areas. The numerous natural and manmade lakes in Lakeland are recharged by rainfall with their levels supported by the groundwater level which in turn is recharged by rainfall. Because rainfall flushes debris and contaminants from yards, roads and parking lots, it also contributes to the degradation of surface water quality. Deterioration of water quality is often the result of eutrophication. Eutrophication is a natural process in which there is accelerated growth of aquatic plants, especially algae. This condition is caused by a number of factors, including nutrient concentrations, climate, lake age, etc. In addition, "cultural" eutrophication is accelerated growth due to man-made factors such as stormwater runoff that contains not only pollutants such as oil and grease, but also fertilizers with nutrients which, in heavy doses, can lead to overgrowth of the plants/algae. As the plants and algae take over, they use up oxygen normally available for fish and other water species, resulting in a decline in those species. Of the major lakes in Lakeland, Lakes Parker, Hollingsworth and Bonnet are the most eutrophic, having the poorest water quality.

ILLUSTRATION VI-6
Northwest Wellfield and Zones of Protection

ILLUSTRATION VI-7
Northeast Wellfield and Zones of Protection

ILLUSTRATION VI-8
Natural Drainage

Table VI-2 shows the average Trophic State Index (TSI) for lakes in the Lakeland Planning Area. Trophic status is the condition of a lake based on the enrichment or productivity of a water body. Eutrophication values may vary with conditions such as morphometry, mean depth and climatic zone. The City of Lakeland tests the TSI of lakes four times a year. The 1998 TSI shown below is the average of four tests in 1998 (March, June, September and December). By averaging the tests, it is possible to account for the effects that changes in seasons and temperature may have on the TSI of lakes in this area.

The relative ranking of the lakes in the urban area with respect to the trophic status is given in Table VI-2. The ranking starts with the lake in the least deteriorated condition (i.e. in the best condition) and proceeds to the lake in the worst condition. The ranking is based on total phosphorus, nitrogen and chlorophyll, and secchi disk results.

**TABLE VI-2
TROPIC STATE INDEX OF LAKES IN LAKE LAND PLANNING AREA**

LAKE	MEAN TSI	RANKING
Wire	36.17	1
Holloway	36.63	2
Gibson	54.00	3
Beulah	63.29	4
John	64.56	5
Crago	67.79	6
Morton	71.29	7
Somerset	73.87	8
Horney	74.17	9
Mirror	77.74	10
Bonny	78.06	11
Bentley	79.35	12
Hunter	81.97	13
Bonnet	86.09	14
Hollingsworth	86.91	15
Parker	88.06	16

Source: City of Lakeland, 1999,
Lakes Management Division.

The City started its Lakes Management program in 1987. In January of 1996, a consultant report (Bromwell & Carrier, Inc., or BCI) was completed and included a 20-year master plan for surface water/lakes management called the Comprehensive Lakes Management Plan. The report prioritized sixteen of the thirty-eight named lakes in the

City for potential clean-up based upon numerous factors including ranking of the lakes by the benefits provided by the lake, (perimeter land use-- i.e. how much was undeveloped, visibility/aesthetics, access for the public, and current recreational uses) balanced by the improvement needs of the lake (quality of natural resources, water quality/pollution).

The purpose of the prioritization scheme was to facilitate the formulation of an implementation schedule which identified potential distribution of future capital expenditures on lake clean-up over the next twenty years. The clean up of any given lake was assumed to take 5 years for the various project phases, i.e. the initial study phase, the design phase, permitting, and finally construction/implementation. According to the BCI report, the City's level of service for stormwater would be enhanced in its ability to accommodate future growth if it included both lake projects and stormwater retrofit projects over the 20 year management period. This study indicated that funding from a new stormwater utility fee was one key option for funding improvements should the City decide to improve the level of service for surface water. In fact, some of the revenues from the stormwater utility fee adopted in December 1999 can be used to help implement the City's Lakes Management Plan. Table VI-3 shows the City lakes which were ranked for clean-up, with one being the lake in most need of clean-up. Funding for these clean-up projects is undetermined.

**TABLE VI-3
PRIORITY RANKING OF LAKES FOR PROJECTS**

RANK	LAKE	LAKE ACREAGE
1	Hollingsworth	355
2	Morton	40
3	Parker	2,257
4	Hunter	93
5	Mirror	18
6	Wire	23
7	Bonnet	86
8	Bonny	253
9	John	97
10	Somerset	47
11	Beulah	21
12	Horney	7
13	Crago	54
14	Bentley	52
15	Gibson	486

Source: Lakeland Comprehensive Lakes Management Plan, 1996.

In 1997 the City began an experimental dredging program for Lake Hollingsworth to prevent degradation of the lake into a marshland; this project is scheduled to be completed in 2000 with a total cost of approximately \$10 million. Through a grant from the Florida Fish and Wildlife Conservation (FWC) Commission, Lakeland also completely revegetated the shoreline of Lake Hunter as well as retrofitting the culvert/outfall located under Sikes Boulevard. The City plan implemented a sediment control project for Lake Hunter in fiscal year 1997-98. The City also is studying the outfall at Lake Parker and related stormwater quality. Alternatives being considered to improve lake water quality at Lake Parker by filtering the stormwater which enters the lake include (a) developing an off-site retention area near the First Baptist Church property off Memorial Boulevard or (b) developing a berm or dike within the lake near the culvert.

WETLANDS

Wetlands are unique habitats which perform valuable water cleansing and filtering functions. They also slow the flow of fast moving water and store it for slow release during periods of drought. Wetlands are environmentally important for their water function, vegetation and animal habitats and air quality roles. Illustration VI-9, Lakeland Planning Area Existing Wetlands (1996), includes the generalized location of wetlands within the planning area. The source of the wetlands maps is the 1994 National Wetlands Inventory which defines the type and location of all wetlands within the planning area. In addition, the Community Development Department requires developers to identify wetlands when site plans are submitted. The Public Works Department reviews identified wetlands information as part of the overall drainage plan review. The Public Works Department also requires the developer to provide a copy of their application to the Southwest Florida Water Management District along with the site plan. This assures that the drainage and wetlands plan submitted to SWFWMD is the same as the one submitted to the City. The City's current land development regulations do not allow any commercial, industrial, or residential structures within the boundaries of a wetland deemed jurisdictional by either the FDEP, SWFWMD and/or the Army Corps of Engineers.

In the Lakeland Planning Area, wetlands tend to fall into four categories:

- (1) Wetlands associated with and located within a natural flood plain and riverine system; this includes the wetlands to the east along Saddle Creek southeast to Lake Hancock; wetlands in the southwest, south of the Lakeland Linder Regional Airport, associated with Poley and English Creeks; and wetlands located in the west associated with the Itchepackesassa River.
- (2) Wetlands associated with the Green Swamp Area of Critical State Concern to the far north.
- (3) Wetlands surrounding surface waters/lakes, chiefly still remaining on the shores of Lake Bonnet, Lake Bonny, and Banana Lake.
- (4) Wetlands associated with mined lands either reclaimed or unreclaimed, including those north of Lakeland's airport and those

near and north of the Tenoroc State Park area/northeast Lakeland. Many isolated or “spot” wetlands are included in this category and may be considered “altered” from their natural state and function.

The City of Lakeland does not employ a wetlands specialist capable of delineating wetlands and determining their function. The City relies upon the SWFWMD and FDEP specialists to enforce State wetland regulations, including mitigation requirements. The City can generally identify if a wetland appears to be on or near a proposed development site by using the National Wetlands Inventory Map. However, it is the landowner’s responsibility to obtain a site-specific survey which indicates the quality and function of a wetland and whether it is a jurisdictional wetland. As the City’s land development regulations (LDRs) state, failure to identify a protected natural resource, per Article 34 of the LDRs, may result in rejection of the site plan. Land development generally shall need to cluster away from identified wetlands and flood zones. No residential, commercial, or industrial buildings are allowed in a jurisdictional wetland unless this prohibits all practical use of the property. The City’s LDRs do require a 15’ buffer or setback from wetlands for new development and a 50’ setback from listed, protected lakeshores.

FLOODPLAINS

When stormwater runoff exceeds the handling capacity of lakes, streams and wetlands, water then overflows onto floodplains. These floodplains are large flat areas where natural watercourses fan out to store water until rivers and streams can absorb the excess. The preservation of floodplains prevents flood damage in developed areas. Lakeland’s floodplain management ordinance sets standards to minimize potential flood damage to structures, mobile homes, or septic tanks and is utilized for all construction in flood prone areas. These provisions are essential to sound land use practices that support mitigation of flood hazards as emphasized in the Local Hazard Mitigation Strategy adopted by Polk County (Resolution 99-52; August 1999.)

The FEMA maps effective as of December 2000 were used to create Illustrations VI-10 and VI-11, which depict the adopted flood hazard zones. While the City of Lakeland has historically allowed some impact to floodplains due to development, any impact was to be made in accord with regulations of the SWFWMD and/or the Florida Department of Environmental Protection as well as the City’s requirement to ensure pre-post match and no off-site impacts. In addition, the City prohibits most types of development within jurisdictional wetlands and within sites totally within a 100-year floodplain. Those prohibitions, except where they may result in a taking of private property, are retained in this Plan.

OPEN SPACE

Illustration VI-11, Open Space, depicts areas of surface waters (named lakes) and preservation and conservation lands as designated on the City’s future land use map and which are typically set aside to protect wetland, floodplain or other natural features.

T-05-009
Ordinance #4645
Effective 06/17/2005

**ILLUSTRATION VI-9
Lakeland Area Wetlands**

T-01-004
Ordinance #4292
Effective 12/27/2001

**ILLUSTRATION VI-10
Lakeland Planning Area
100-Year Flood Zones**

T-07-013
Ordinance #4896
Adopted 09/06/2007

ILLUSTRATION VI-11
Open Space

AIR QUALITY

Air quality monitoring and enforcement is administered by the United States Environmental Protection Agency (EPA) under the Clean Air Act. The State of Florida lists Polk County as an air stagnation area. This indicates a potential for future pollution problems due to growth in traffic volumes and a decrease in levels of service on existing roadways.

The sulphur dioxide monitoring station located in the Tenoroc Reserve near the City's McIntosh Power Plant, which was operated by the Florida Department of Environmental Protection, has been shut down. A second station located south of Lakeland was converted to a "PM10" station to monitor small particulates; however, the station is not used when FDEP experiences staffing shortages.

There are two ozone monitoring stations in the Lakeland Planning Area. One is located at the Baptist Children's Home on Sikes Boulevard and the second is at Sikes Elementary School on Shepherd Road, south of Lakeland. Neither station has shown elevated levels of ozone. According to the Central Florida Regional Planning Council, no air quality studies have been conducted in Polk County in the late 1990s.

The Lakeland Fire Department controls outdoor burning for both safety and air hazard reasons. Permits for outdoor burning are issued on a case-by-case basis. Permits are denied during air inversions and some items, such as tires and roofing materials, cannot be burned. An air inversion is generally a condition in which air temperature increases with altitude, holding surface air and pollutants down.

HAZARDOUS WASTES

According to estimates by Polk County Recycling based on 1995 data, there are 929 facilities in the City of Lakeland that are classified as small quantity hazardous waste generators. Due to incomplete data, Polk County Recycling believes that the number of small quantity hazardous waste generators in the City of Lakeland could actually be between 1000-1200. A generator is classified as a small waste generator if he/she generates no more than 220 lbs. of hazardous waste in a calendar month. Large hazardous waste generators are subject to regulation by the FDEP, while the small waste generators are monitored on the county level.

MINERALS

Phosphate is the only significant commercially valuable mineral in the Lakeland Planning Area. Illustration VI-12 indicates local mineral deposits. Sand, clay and limestone deposits are found in various areas of the planning area but mining has been limited.

Phosphate was discovered in central Florida in the 1920's near Fort Meade. Earliest mining was by hydraulic dredging in river channels, but today's activity concentrates on

land pebble deposits. There are no active mines in the Lakeland area but hydraulic dredging has been the main means of lake restoration for removing muck and sediment build-up on lake bottoms; such a technique was used for Lake Hollingsworth.

Historically, mining has played an important role in Lakeland's and Polk County's growth. Phosphate mining no longer occurs in Lakeland nor in most of Polk County north of S.R. 60. However, phosphate mining and the operation of related chemical plants produces numerous waste products and radioactive and highly acidic soils are also present. Any uranium remaining in the overburden results in the release of radon gas. When development occurs on mined land, this gas must be taken into account and mitigation techniques applied to construction methods. The potential for radon gas on all lands, mined and unmined, has become a serious concern due to test studies that indicate that radon levels in many areas may exceed prescribed limits. Education of the general public and use of relatively inexpensive mitigation measures have proven effective in addressing this problem.

T-01-004
Ordinance #4292
Effective 12/27/2001

ILLUSTRATION VI-12
Surface and Commercially Valuable Minerals

ISSUES AND OPPORTUNITIES

There are several issues which must be considered in ensuring the conservation, protection, management and restoration of natural resources. Among the key issues to be considered are:

1. Declining natural resource availability in the face of urbanization;
2. Coordination between public and private entities to maintain, enhance, and conserve the area's natural resources; and,
3. Development of a "conservation greenbelt" to serve as a conservation and preservation corridor.

RESOURCE AVAILABILITY AND PROTECTION

A major issue to be addressed when outlining the City's conservation efforts is declining natural resource availability in the face of urbanization. As the City becomes more densely developed, natural amenities decrease. Habitat crucial to the survival of many native plant and animal species becomes scarce, often forcing relocation or extinction. With increasing urban development consuming vast amounts of land, acquisition of available land to set aside for conservation purposes becomes increasingly important. In addition, acquisition of unique natural areas should be given consideration before urban development precludes the possibility of acquisition. The data presented in this element, i.e. illustrations of wetland, floodplain, vegetation and soil resources, and species occurrences, are generalized. These do not substitute for site-specific surveys to identify plant and animal species when the size, diversity, and/or past siting on the property warrant such a survey.

Maintenance, preservation and enhancement of the area's natural resources is an important long range planning concern. Use and enjoyment of these resources is an integral part of the regional system. If local natural resources are allowed to deteriorate, the quality of the entire regional system is reduced. Management and enhancement of the City's lakes must continue as per the City's 20-year Lakes Management Plan. The Lakes Management Plan can offer guidelines when lake associated proposals are forthcoming such as personal watercraft or other boating activities, swimming areas, wildlife protection areas, etc.

Conserving and protecting the natural resources and functions of Lakeland's lakes, including lake shoreline, water quality of the lakes, wetlands, and associated wildlife resources has been a continuing goal of the City's park land acquisition and development plans. This includes purchase of the property located on the west side of Lake Bonny for which development plans include preservation of shoreline wetlands and a natural habitat walkway as well as more active recreational amenities further

away from the shoreline. An existing park site located in west Lakeland near the Polk County Parkway, has been designated as a conservation area on the Future Land Use Map due to existing wetland features of the site; the site is undeveloped but targeted for future passive and possibly active recreational purposes. Another proposed park land acquisition is located east of Lake Bonnet (proposed as "Central City Park".) This property includes an existing bird rookery, i.e. nesting colony, which has been documented by the Fish and Wildlife Conservation Commission in their "Florida Atlas of Breeding Sites of Herons and Their Allies, 1986-89." Thus, the City has a unique opportunity in pursuing park land acquisitions and quality park land development to conserve local lakes and their associated natural resources, allowing the resources to be protected from urban development, while providing additional passive and active recreational opportunities for City residents.

COORDINATION BETWEEN PUBLIC AND PRIVATE AGENCIES

Since ecosystems do not stop at jurisdictional boundaries there is a need to coordinate with other entities to protect regional resources. For example, the City can and does coordinate with the Polk County Environmental Lands Program and the Fish and Wildlife Conservation Commission regarding potential land acquisitions. A continued coordinated effort between public and private agencies will help ensure the appropriate use, conservation and protection of the area's natural resources. Education in the importance of protecting natural resources and natural systems is also crucial to an effective conservation program. Every effort should be made to ensure that people no longer view conservation measures as an inconvenience, but look at these measures as a way to provide a high quality, livable environment for generations to come. In fact, the most recent land development and land planning trend, known as New Urbanism, promotes a "traditional town" of mixed uses and open spaces, and emphasizes the natural environment as an amenity which, if properly conserved, can enhance the value and attraction of a property.

DEVELOPMENT OF A CONSERVATION GREENBELT

Lakeland's coordination for land acquisitions has focused upon preserving the greenbelt proposed in the Lakeland Recreation and Open Space Element [shown in Illustration VI-13] and located east of Lakeland's historical city limits. A key purpose of the proposed Greenbelt is to preserve large, contiguous tracts of land with natural resources important to wildlife. These tracts, if linked, can provide a corridor of streams, forests, floodplains and wetlands that link to the Green Swamp through Saddle Creek and Lake Hancock to the Peace River to the south. Another area of public landownership is located adjacent to the Alafia River and could link to a County greenway system further south, in the phosphate mined/power plant area. Since the Greenbelt was originally proposed in 1987, the Fish and Wildlife Conservation Commission has expanded Tenoroc Park by 242 acres and purchased a 338 acre tract to the south to link Tenoroc and the County's Saddle Creek Park, as well as a 960 acre portion of the Bridgewater DRI, north and adjacent to Lake Parker. The County has also purchased tracts of land, some small and others quite large, including a 1,300 acre

wet area located off the west shore of Lake Hancock. Several tracts of publicly owned land within the proposed greenbelt corridor are managed to meet specific needs of the land owners. The Fish and Wildlife Conservation Commission manages the Tenoroc Reserve and Cynamid/Saddle Creek tracts for recreation purposes and to allow experimentation with different public fishing strategies. Polk County manages Saddle Creek and Carter Regional Parks as regional recreation facilities, while the City of Lakeland manages the Northeast Wellfield as a public raw water source (although a large portion of the wellfield may be purchased by the State and/or County for preservation).

Of a potential 31,000 acres of greenbelt, 19,214 acres, 62%, are already in public ownership. Much of the privately held lands have severe development limitations such as State jurisdictional wetlands or unreclaimed mined lands. It's been estimated that 70% of the greenbelt lands are unavailable for development. Under these circumstances, it would be beneficial for Polk County, the State of Florida, and the City of Lakeland to continue to pursue a comprehensive greenbelt land acquisition and management plan.

The areas where development threatens to sever this corridor include those located near I-4 and those located near U.S. 92 East and U.S. 98 South. Future open space, conservation or preservation efforts should concentrate on these areas specifically and the greenbelt corridor generally in order to establish the benefits to be derived from a continuous greenbelt. These benefits include water conveyance, storage, recharge and purification, vegetation and wildlife habitats, air quality and cooling benefits and varied recreation opportunities. Another benefit of a greenbelt is the positive influence on land values resulting from the proximity of an open space amenity.

T-05-022
Ordinance #4698
Effective 11/17/2005

ILLUSTRATION VI-13
Lakeland Area Greenbelt

GOAL, OBJECTIVES & POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to conservation issues. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the measurable and attainable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Conservation Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan.

GOAL: **Conserve, restore and manage natural resources in order to preserve and enhance their quality for future use.**

Objective 1: Ensure the conservation and appropriate use of minerals, soils and native vegetative communities through the continued enforcement of City land development regulations and development (site) plan reviews.

Policy 1A: Mineral extraction within the City of Lakeland will be allowed only as a means to improve a natural resource.

Policy 1B: The City of Lakeland will continue to protect soil disturbed during the development process through regulations of the Water Management District and the Department of Environmental Protection. Best management practices for limiting soil erosion shall be required for new development or redevelopment. (As per LDRs, Article 34 "Soil Erosion Control.")

Policy 1C: The City of Lakeland will continue to enforce, as established within City land development regulations, those specific standards, procedures and criteria necessary for the conservation, appropriate use and preservation of identified vegetative communities.

Policy 1D: The City of Lakeland will continue to coordinate with the local schools for the development of demonstration areas to be used in the instruction of conservation of water, soil, and vegetative resources.

Policy 1E: Lakeland will support continued shared use of facilities between the City and the School Board, where such may assist public education regarding the environment.

Policy 1F: The City of Lakeland will continue to require site plan submittals to include vegetative surveys for proposed development sites upon the request of the City.

Policy 1G: Land development regulations have been adopted by the City of Lakeland which include specific land use controls for protected habitat areas. Protection of habitat which supports listed species shall utilize management programs including buffer zones, setbacks, conservation easements, set aside areas, and physical protection devices to prevent disturbance of the listed species.

Policy 1H: If development is proposed in an area where municipal wastewater is not available a permit for a septic tank must be obtained from the Polk County Health Department. Soil suitability, including sufficient permeability to accommodate a septic system, and adequate depth to the seasonal high water table shall be verified prior to issuance of any permit for a septic tank system, per requirements of Chapter 64E-6, F.A.C.

Objective 2: Continue to conserve and protect the quality of water resources, including area lakes and, by 2010, per capita domestic water usage will be decreased to a target of 110 gpd. Support the Local Hazard Mitigation Strategy of Polk County by minimizing or mitigating flood hazard in future development proposals.

Policy 2A: The City of Lakeland will continue to support ongoing programs for the conservation and protection of water resources, including use of the inverted rate structure, xeriscaping at all City buildings and parks, the leak detection program, effluent reuse, and water conservation education efforts.

Policy 2B: Water conservation measures have been implemented to reduce domestic per capita water consumption to 120 gpd by 2005 and 110 gpd by 2010 utilizing "SWUCA" methodology for calculating the per capita figure.

Policy 2C: The City of Lakeland will continue to implement a program to conserve water through the re-use of wastewater effluent as cool down water for the McIntosh power plant complex.

Policy 2D: The City of Lakeland land development regulations will continue to protect wellfields and aquifer recharge areas from potential contamination by development. The land development regulations will continue to prohibit within the designated zones of protection the location of landfills, wastewater facilities, facilities for the storage, handling, or processing of petroleum products, agricultural chemicals, hazardous waste, toxic waste, medical waste, or other uses which could contaminate wellfields or aquifer recharge areas.

Policy 2E: The City of Lakeland's lakes management program will pursue water quality goals for area lakes in accordance with the 20-year Comprehensive Lakes Management Plan.

Policy 2F: The City of Lakeland's management plan for area lakes will include support of water quality goals and programs for all lakes within the Lakeland Planning Area.

Policy 2G: City of Lakeland land development regulations will continue to include specific standards, criteria and land use controls necessary for the protection and conservation of the natural function of floodplains. These regulations will continue to require development in the FEMA 100-year flood hazard zone to be constructed so that the lowest floor elevation is at least one foot above the base flood elevation as established by the FEMA Flood Insurance Rate Maps.

Policy 2H: (a) Dredging and filling of lands within floodplains will be restricted so as to preserve the natural function of the 100-year floodplain. All proposed development or redevelopment shall be located primarily on the non-floodplain portion of the site and the City shall use gross density provisions given in the Future Land Use Element to encourage development or redevelopment to be clustered on the upland portion(s) of the property.

- (b) For proposed development or redevelopment areas that lie within the 100-year floodplain, residential structures shall be required to be elevated and non-residential structures shall be required to be either elevated or flood proofed. Elevations shall be at least 1 foot above the BFE.
- (c) Floodplain dredge and fill activity shall require adequate compensation for stormwater management in accordance with City engineering standards and applicable standards of the Southwest Florida Water Management District and the Florida Department of Environmental Protection.
- (d) No development activity shall be allowed that will raise the 100-year base flood elevation.
- (e) No hazardous materials or waste shall be stored within the 100-year floodplain.
- (f) Development of property that is entirely within the 100-year floodplain shall be prohibited except where such would result in a "taking" of private property.
- (g) Within the Green Swamp Area of Critical State Concern, no new lots shall be created which are entirely within a 100-year floodplain area unless such would result in a taking of private property. In the remainder of the City, lots within the 100 year floodplain shall be discouraged through provisions which allow clustering of lots on the upland portion of a site and reduced lot sizes.

Policy 2I: City of Lakeland land development regulations will continue to include strict performance standards, criteria, mitigation procedures and land use controls necessary to protect and conserve area wetlands. These regulations shall require the following:

1. Site plans for new or re-development will, at a minimum, identify the location, condition, extent and function of impacted wetlands on the property, including any jurisdictional wetlands;
2. Site plans will provide measures to ensure that normal flows and quality of water as well as the natural hydroperiod will be protected to maintain wetlands after development occurs; and,
3. New development shall be generally clustered away from wetland areas. No commercial, industrial, or residential buildings are allowed within the boundaries of a jurisdictional wetland. However, where alteration of wetlands is necessary as a last resort to prevent an unconstitutional taking of private property, either the restoration of disturbed wetlands will be provided or additional wetlands will be created to ensure no net loss of wetlands.

Policy 2J: City of Lakeland land development regulations will include specific standards, criteria, procedures and land use controls necessary to protect and conserve area lakefronts while allowing reasonable access to the water and recreational opportunities. Land development regulations shall continue to require a 50-foot setback from the protected lakefront to the start of any construction.

Policy 2K: The City of Lakeland will require all developments to undertake measures necessary to ensure that water quantity and quality resulting from the development will not adversely affect nearby wetlands. Specific measures necessary for implementation of this policy are detailed in the City's Natural Resource Protection Regulations.

Policy 2L: The natural functions of wetlands include water storage/flood control, water filtration, groundwater recharge, and habitat for plants and animals, in particular waterfowl. These natural functions shall be protected to the maximum extent possible, in particular where the wetland(s) in question link to larger riverine and/or surface waters.

Policy 2M: City land use compatibility policies and development regulations regarding the location, density, intensity, extent, and type of land uses allowed shall consider the location, size, condition, type, and function of on-site or adjacent wetlands.

Policy 2N: As the City continues to acquire lakefront, wetland, and other natural areas for future recreation and open space uses, preservation and conservation of lakefront and wetlands shall be included in all park development plans.

Policy 2O: The City will support efforts to enhance public awareness of the location of various collection points available for the safe disposal and recycling of used motor oil.

Objective 3: Continue to implement measures to protect and improve the ambient air quality to preserve Lakeland and Polk County's status as an air quality attainment area as designated by the Florida Department of Environmental Protection.

Policy 3A: The City of Lakeland will consider air quality in prioritizing capital facility and transportation improvement programming.

Policy 3B: Developments of Regional Impact (DRIs) will mitigate adverse impacts on air quality which they create. DRIs will also be required to be part of the available public transit district to reduce vehicular trips from the development.

Policy 3C: The City of Lakeland will continue to control open burning of land clearing debris.

Policy 3D: The Lakeland Fire Department will continue to prohibit outdoor burning of petroleum-based products and trash within the City.

Policy 3E: The City of Lakeland will continue to promote expansion and increased ridership of the public transit system, efficient delivery of service, and increased bicycle and pedestrian routes.

Policy 3F: The City will continue to implement a curbside recycling program for solid wastes in order to reduce the need for disposal through incineration and landfills.

Objective 4: Continue to work with state government, county government, adjacent local governments and involved land owners in order to establish greenbelts which conserve natural resources and/or habitats and which provide open space relief from urban development. By 2003, develop an interlocal agreement with Polk County which identifies a mutually-agreed upon greenbelt primarily located to the east and south of Lakeland.

Policy 4A: The City of Lakeland will continue to identify riverine corridors and other water resource lands, and recommend their preservation through State purchase or other means.

Policy 4B: The City of Lakeland will share information with other local governments in order to direct passive land-intensive uses to locate within identified greenbelt corridors, including bicycle/pedestrian trails.

Policy 4C: The City of Lakeland will lobby State agencies and private conservation groups to purchase major land preservation areas within identified greenbelt corridors.

Objective 5: Continue the development of programs to conserve, appropriately use and protect fisheries, wildlife and wildlife habitats.

Policy 5A: The City of Lakeland will continue to implement its 20-year lakes management plan to ensure public and conservation uses of city lakes as well as measures for the protection of fish and wildlife habitats.

Policy 5B: The City shall consider adopting a stormwater utility fee as one method of ensuring a dedicated funding source to improve surface water quality and maintain or enhance flood control, and protect lake-dependent plant and animal species, including fish.

Policy 5C: The City of Lakeland will require all new developments within areas identified as known or potential habitats for endangered or threatened species to provide an inventory of all listed species prior to receiving development approval. If listed species are found on the site or would be affected by the development, a specific management plan must be prepared by the developer, including necessary modifications to the proposed development, to ensure the preservation of the listed species and their habitat.

Policy 5D: The City of Lakeland's land development regulations will continue to offer zoning strategies to encourage protection of natural habitats.

Policy 5E: The City of Lakeland Parks and Recreation Department will continue to consider the protection of existing natural habitats as one factor in the prioritization of future park land acquisitions.

Objective 6: Continue to take action to protect the environment from hazardous wastes.

Policy 6A: The City of Lakeland will coordinate with Polk County on an annual basis to establish an "amnesty days" program for household hazardous wastes.

Policy 6B: The City of Lakeland will continue to require that disposal practices of all City hazardous waste contractors are in compliance with all applicable State and federal regulations as part of all applicable written contracts.

APPENDIX VI-ONE

1996 CHRISTMAS BIRD COUNT

LAKELAND-AUBURNDALE COUNT CIRCLE

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

APPENDIX VI-TWO

WATER CONSERVATION STRATEGIES

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

VII. HOUSING

INTRODUCTION

Affordable housing becomes increasingly scarce in an urban city while the existing housing inventory continues to age. The safety and marketability of much of the older housing also becomes an issue as the physical structures age and as buyer's expectations change. However, some of the older housing stock provides a source of affordable units. In Lakeland, the older housing stock is primarily found in the "central city" neighborhoods. Since property values and upkeep have a great influence on neighborhood stability, the City has given priority to the conservation of neighborhoods through rehabilitating and preserving existing housing stock and through pursuit of neighborhood improvement programs to address wider neighborhood quality of life issues.

While the City will continue to pursue partnerships which increase opportunities for affordable housing for Lakeland's growing population, as in most cities, the private market will continue to be the prime determinant in the provision of housing. The City's programs for existing housing are administered through the Code Enforcement and Housing Divisions of the Community Development Department. Much of the funding has historically been provided by federal Community Development Block Grant (CDBG) funds. These programs involve rehabilitation of substandard units, emergency repairs, environmental and structural inspections and code enforcement. The Building Division administers permitting and inspection of new housing. In the 1990s, the federal Home Investment Partnership Program (HOME) and State Housing Initiatives Partnership program (SHIP), made funding available for home purchase assistance. Applicants for home purchase assistance are screened for credit and other eligibility through Keystone Challenge Fund, Inc., a local Community Housing Development Organization (CHDO).

In the 1990s, an increased emphasis was placed upon forming and sustaining private/public partnerships that leverage private dollars. This is due primarily to the fluctuation of Federal monies available for housing programs. Housing opportunity for those of very low income has historically been limited to public housing and the Section 8 rental assistance program. New programs to renovate public housing and to improve the surrounding area are available, but funding is extremely competitive. For instance, federal tax credit programs have resulted in a local rental housing development that will offer over 400 rental units affordable to very low and low-income households while encouraging tenants to eventually pursue home ownership. This tax credit program is extremely competitive. While a local match in terms of impact fee reimbursements or other match options is not required for the tax credit award, the competitive nature of the program usually deems it necessary.

The City continues to work with the private market on initiatives to add to and preserve the supply of single and multi-family housing. However, Lakeland housing officials and government leaders must also explore new ways to encourage the private sector to provide a wider diversity of housing types including housing which is affordable to very low, low and moderate income households.

SUMMARY OF FINDINGS

In early 1988, the Community Development Department completed a housing report, entitled Lakeland Housing, which detailed facts and features about housing in the City of Lakeland and the surrounding planning area. The City's 1998 Adopted Evaluation and Appraisal Report (EAR) supplemented and updated most of the required data for the Housing Element. Portions of that data are included in this Summary, and the remainder may be found in Appendix VII-One (Housing Inventories & Data) in the Technical Support Document.

The terms, very low, low and moderate income are used throughout this element. "Very low income" households are normally those with an income of 30% to 50% of the median income of an area whereas "low income" is defined as 51% to 80% of median income, and "moderate income" is 81% to 120% of the median income. Housing programs, however, will typically use a sliding scale type of definition of very low, low and moderate income based upon number of persons in the household, i.e. household size. For example, if the current median income is about \$42,000, (the median income for an area changes annually), a household of four would qualify as "low" earning about \$33,700 a year whereas a household of two could only earn about \$27,900 a year to qualify as "low" income.

INVENTORY AND CONDITION OF HOUSING

The 1990 U.S. Census gives us an idea of the housing conditions from survey data they collected regarding interior deficiencies in space (square footage per occupant), heating and/or completeness of kitchens and bathrooms.

**TABLE VII-1
SUBSTANDARD HOUSING CONDITIONS
CITY OF LAKELAND AND POLK COUNTY**

1990 CENSUS AREA	# Units without Heat	# Units without Plumbing	# Units with incomplete Kitchens	Total Substandard and as a % of all units	# Units, 1.01+ persons per room	Total of Substandard or Overcrowded Units	Total of All Housing Units
Polk County	1,005	751	948	2,704 1.5%	6,338	9,042 4.8% of All Units	186,225
Lakeland	132	99	215	446 1.3%	940	1,386 3.9% of All Units	34,933

Source: U.S. Bureau of the Census, 1990.

As can be seen in Table VII-1, there was not a great difference between the City and the County regarding housing conditions in terms of Census measures. However, most planning agencies perform some type of windshield survey of exterior housing

conditions between decennial censuses. Lakeland conducted a complete windshield survey of city housing stock in 1987 in preparation for the adopted plan (1991). This was followed by another, partial housing survey in 1992 and a sampler of code violation data in 1996.

Informal windshield surveys involve staff driving through residential developments/neighborhoods and categorizing housing as either standard or substandard, based on observations regarding the exterior conditions of the housing. Substandard housing is then usually separated into the categories of housing which might be rehabilitated versus housing which is so dilapidated it is a candidate for demolition.

In 1987, 430 units (1.6% of the total units) were found to be blighted or substandard but able to be rehabilitated, while 156 (0.6%) were found to be structurally substandard/candidates for demolition. Most of the substandard housing was found in the Northwest Target Area, and in the Lake Beulah and Parker Street areas. In 1992, the Community Development staff surveyed about 20,241 housing units, or about 58% of the total units. They found 376 or 1.86% to be substandard, with 71% located in 5 neighborhoods on the north side of the City (Webster, Diggs, Martin Luther King, Lake Wire and Parker Street). About 112 units were demolished between 1987 and 1992 (9% of 1987 units). This indicates the emphasis the City placed on code enforcement as a means to obtain neighborhood revitalization (83% of the units demolished were located in the same five neighborhoods cited above).

Due to the low percent of total housing found to be in substandard conditions in past surveys, in 1996, the Planning Division staff decided to sample the condition of the housing which had been subject to code enforcement violations throughout the City. Data was taken from the Code Enforcement database for all Census Tracts within the City, and from every code enforcement officer's records, for 1991-1996 [see Table VII-One(T) in Appendix VII-One which is found in the Technical Support Document]. After deleting duplicate entries, the data was re-presented in a spreadsheet-type survey to the Code Enforcement staff who were asked to indicate if the units currently had a violation of structural or non-structural nature, and if the unit needed structural minor or major repair or demolition.

Of the total units surveyed, over half (63%) were found in five census tracts on the north and west sides of the City (census tracts 112.01, 112.02, 102, 108 and 110), the same neighborhoods that the 1992 planning survey found to hold most of the substandard units in the City at that time plus part of Lake Hunter Terrace neighborhood (see Illustration VII-1 Neighborhood Boundaries, indicates that boundaries identified as of 1999). Survey results, found in Table VII-2, indicate only about 1% of units were found to need demolition in 1996, and about 5% needed major repair. Standard units equal about 96% of the net units surveyed.

**TABLE VII-2
SURVEY OF HOUSING CONDITIONS
1996 AND 1987**

Net units in 1996 with violations: 1,105	Total of Standard Units	Units Needing Major Repair	Units Needing Demolition
Housing Survey based on Code Enforcement Data	1043 (94%)	57 (5.2%)	8 (0.7%)
1987 Housing Windshield Survey (27,304 units)	26,703 (97.8%)	437 (1.6%)	164 (0.6%)

Source: City of Lakeland Community Development Department, 1996 and 1987.

Of the total units needing major repairs, 68% were located in the same 5 census tracts and neighborhoods discussed above, i.e. located on the City's north and west sides. The five census tracts and corresponding neighborhoods have on-going revitalization and neighborhood planning efforts including formation of neighborhood associations, community policing stations, code enforcement, and parks revitalization. Streetscaping has largely been limited to the historic neighborhoods and not included in most of the north side area. The above data indicates that the City was targeting its efforts on the neighborhoods most in need of assistance. Similar assistance to other areas must proceed as part of the overall strategy of stabilizing and revitalizing City neighborhoods. Assistance will be limited by staff resources and the length of time a given neighborhood requires the City to invest a high level of City resources. As neighborhoods mature and become more "self-sustaining," the efforts and resources of the residents in the neighborhoods should reduce City staff involvement.

EXISTING PROGRAMS

The City of Lakeland greatly values its existing housing stock and has initiated several programs to preserve housing units, especially in the context of the larger neighborhood unit. Substandard and deteriorating housing conditions require code enforcement and rehabilitation programs. Lakeland's housing stock is relatively old by Florida standards and the potential for deterioration is more significant than in younger cities. Recognizing this, the City Commission has placed an increasing emphasis on code enforcement activities. The City of Lakeland Code Enforcement Board is one tool used in correcting substandard housing conditions and hears numerous cases each month. Through the imposition of fines, the Code Enforcement Board is generally successful in causing violations to be corrected or the very worst units to be demolished. In fact, approximately 9 percent of the units which incurred a code violation between 1990-1996 were demolished.

The Housing Division rehabilitates an average of 35 substandard homes each year. The HUD Rental Rehabilitation Program has been terminated. Remaining local program income funds have been used to renovate local rental units, including a \$125,000 loan for rehabilitation of the Dakota Park Apartments, a 40-unit complex owned and managed in by the Dakota Park Limited Partnership which is a partnership of a for-profit and a non-for-profit, the latter of which is the Lakeland-Polk Housing

Corporation. The renovated units in Dakota Park will assist in overall neighborhood revitalization near existing public housing units and may serve future public housing needs. Another loan was made for \$140,000 to upgrade elevators in rental units for the elderly managed by the Lakeland Presbyterian Apartments, Inc. to allow handicap access to their facility located near Lake Morton. Most housing rehabilitation activity, about 75%, occurs in the Northwest Target Area where a substantial amount of blight and slum conditions have existed (see Illustration VII-2 , CDBG Target Area). (The other 25% occur throughout the City for qualified households.) There is a waiting list for the limited supply of housing rehabilitation deferred loans and it is estimated that more than double the units could be rehabilitated per year if adequate funding/staff and local rehab contractors were available.

In addition to the attention given individual housing units, special neighborhood improvement programs operate in the Dixieland, Parker Street, Lake Hunter Terrace, Westlake, South Lake Morton and Northwest Neighborhoods. In South and East Lake Morton these efforts include review of housing rehabilitation activity under special design guidelines for contributing historic housing stock. Lakeland has seven historic districts as shown in Illustration VII-3. Other related activities include coordinated code enforcement and enhanced public improvement programs, such as street lighting, paving, and parks, in each area plus enhanced neighborhood law enforcement (COPs substations and/or bicycle policing).

HOUSING TYPE AND MIX

A review of City residential building permits from 1976 to 1998 in Table VII-3 reveals basic changes which have occurred over time as the market cycle affects the tenure and type of housing being built. From 1976 to 1980, single-family housing units comprised about 30% to 40% of new permits, with duplexes comprising a majority of the multi-family units permitted. Except for 1984, the next five-year period held the percentage of permits going to single-family units steady, while multi-family permits of 3 or more units took over as the majority of new permits. There were major shifts in permit distribution during 1986-88. However, from 1990-1998, on average, about 67% of new units permitted were single-family (including mobile homes) and 33% were multi-family. Multi-family permits surged in 1997 (61%) and 1998 (54%) as new apartments were constructed primarily in the Sleepy Hill Road area. The City's permit distribution will continue to be influenced by the housing market cycles. Over the next 3 to 5 years permits for multi-family units may dominate until the supply meets the demand.

Several new assisted-living facilities were planned or under construction in mid-1999 due to a burgeoning market for this type of facility to serve the senior population. Detailed lists of group homes are found in Appendix VII-One in the Technical Support Document.

**TABLE VII-3
RESIDENTIAL UNITS PERMITTED BY TYPE
CITY OF LAKELAND 1976-1998**

LAKELAND RESIDENTIAL PERMIT DATA, 1976-1989									
YEAR	SINGLE FAMILY		TWO FAMILY		THREE/FOUR FAMILY		FIVE FAMILY OR OVER		TOTAL
	# OF UNITS	% OF YRLY TOTAL	# OF UNITS	% OF YRLY TOTAL	# OF UNITS	% OF YRLY TOTAL	# OF UNITS	% OF YRLY TOTAL	
1976	62	36%	70	41%	10	6%	29	17%	171
1977	135	43%	84	27%	27	9%	68	22%	314
1978	118	32%	112	30%	52	14%	91	24%	373
1979	115	34%	128	37%	57	17%	42	12%	342
1980	201	43%	168	36%	22	5%	72	16%	463
1981	130	39%	54	16%	25	8%	124	37%	333
1982	128	35%	32	9%	52	14%	156	42%	368
1983	182	46%	26	7%	48	12%	139	35%	395
1984	30	13%	66	28%	50	21%	91	38%	237
1985	177	32%	54	10%	62	11%	256	47%	549
1986	236	76%	20	6%	50	16%	4	1%	310
1987	303	73%	16	4%	28	7%	67	16%	414
1988	326	25%	6	0%	54	4%	915	70%	1,301
1989	244	45%	4	1%	15	3%	275	51%	538
TOTAL	2,387	39%	840	14%	552	9%	2,329	38%	6,108

On average, single-family was about 40% of total and multi-family was 60%, over the 13 years.

LAKELAND RESIDENTIAL PERMIT DATA, 1990-1998							
YEAR	SINGLE FAMILY		MULTIPLE FAMILY (UNITS)		MOBILE HOME SET-UPS		TOTAL
	# OF UNITS	% OF YRLY TOTAL	# OF UNITS	% OF YRLY TOTAL	# OF UNITS	% OF YRLY TOTAL	
1990	175	69%	22	9%	57	22%	254
1991	200	58%	74	22%	70	20%	344
1992	195	61%	39	12%	85	27%	319
1993	205	66%	32	10%	75	24%	312
1994	217	48%	143	31%	95	21%	455
1995	135	62%	45	21%	39	18%	219
1996	144	56%	42	16%	73	28%	259
1997	162	26%	377	61%	80	13%	619
1998	204	34%	328	54%	76	13%	608
TOTAL	1,637	48%	1,102	33%	650	19%	3,389

On average, single-family was about 67% of total and multi-family was 33%, over the 8 years.

Source: City of Lakeland, Building Division.

Since 1980, there has been a changing trend in the ratio of site-built versus mobile homes in the City as indicated in Table VII-4. From 1980 to 1985 the percentage of mobile homes in the housing stock more than doubled from 5% to 11%. From 1985 to 1990, the percentage of mobile homes as part of the overall housing stock increased to 18%, but has remained relatively constant since then. These changes are tied to demographic and urban economic shifts in the City area. Family size has continued to decrease in recent years, resulting in a greater demand for smaller homes. Also, the population's average age has risen as retirees move into the area, many of them choosing to live in mobile homes on a full-time or seasonal basis. Finally, as land costs and therefore housing costs rise, urban housing becomes more expensive. Mobile homes usually offer a less expensive alternative to site built homes although the cost of new mobile or manufactured homes can rival the cost of lower-priced site-built homes.

**TABLE VII-4
CITY HOUSING STOCK, BY TYPE, 1980-1998**

	1980		1985		1990		1995		1998	
	# of units	%	# of units	%	# of units	%	# of units	%	# of units	%
Single Family	13,017	63%	15,502	56%	18,355	53%	19,482	53%	19,992	52%
Multi-family	6,727	32%	8,882	32%	10,464	30%	10,819	29%	11,566	30%
Mobile Homes	1,033	5%	3,135	11%	6,114	18%	6,535	18%	6,764	18%
TOTAL:	20,777	100%	27,519	100%	34,933	100%	36,836	100%	38,322	100%
* Total plus Annexations & minus Demolitions:							36,498		38,484	

Source: City of Lakeland, Building Division. 1999.

While it is often assumed that those who cannot afford to own a home will rent, the affordability of rental units is not assured. Although new multi-family unit construction surged in 1997 and 1998, the proposed rents for the units constructed was quite high (\$500 to \$750). The market for higher rent units may be serving households that prefer to rent versus own due to advantages of less maintenance responsibilities and other reasons independent of the affordability of the unit.

Additional multi-family units planned or under construction are expected to be in middle-income cost range, with the exception of Providence Reserve, a 460-unit complex to be constructed in two phases and with planned on-site recreation and social services to meet the housing needs of very low and low income residents. A more detailed look at area rents is planned through a City rental survey (1999). Pending survey results, the Shimberg Center for Affordable Housing estimated 1995 Lakeland rental costs distribution as shown in Table VII-5. About 74% of the units were estimated to have a rental cost of below \$500 per month. Housing cost is considered a burden or excessive when it exceeds 30% of household income. In 1996, the average cost of a home in the County was about \$89,000. The information in Table VII-6 indicates about 11.5 % of City households are expected to pay a monthly mortgage that is over 30% of their income towards housing costs during the period from 2000 to 2010. This is down from

1990 when the Census indicated about 17% of resident homeowners paid over 30% of their income for mortgage payments. About 15.5% of future households will pay 30% or more of their income for rental costs during the same period.

Lakeland has a variety of specialized housing types serving those with special needs; a detailed inventory is found in Appendix VII-One in the Technical Support Document. The inventories were primarily done in 1996. At that time, Lakeland had about 748 public housing units for low income citizens, plus Federally subsidized housing units for families and elderly, and several group homes, with a total capacity of 2,157 persons:

- group homes for children (capacity: 104)
- group homes for developmentally disabled (capacity: 50)
- nursing homes (capacity: 1,209) and
- various assisted-living facilities (capacity: 794+)

**TABLE VII-5
NUMBER OF RENTAL UNITS BY RENTAL COST, 1995**

RENT	# OF RENTER UNITS OR HOUSEHOLDS	% OF ALL RENTER-OCCUPIED UNITS	% OF RANGES OF RENTAL COSTS
<\$100	304	2.4	19.8% is below \$300/month
\$100-\$149	352	2.8	
\$150-\$199	340	2.7	
\$200-\$249	534	4.2	
\$250-\$299	972	7.7	
\$300-\$349	1,563	12.3	54% is between \$300-\$499/month
\$350-\$399	1,986	15.6	
\$400-\$449	1,652	13.0	
\$450-\$499	1,717	13.5	
\$500-\$549	884	7.0	21.1% is between \$500-\$749/month
\$550-\$599	717	5.6	
\$600-\$649	487	3.8	
\$650-\$699	333	2.6	
\$700-\$749	269	2.1	
\$750-\$999	192	1.5	2.8% is over \$750/month
\$1,000>	166	1.3	
NO CASH RENT	231	1.8	1.8% is cash rent/unknown cost
TOTAL	12,699	99.9%	

Source: Shimberg Center for Affordable Housing.

**TABLE VII-6
LAKELAND HOUSING COST BURDEN TABLE***

*Number of households paying 30% or more of income towards housing costs.

	OWNER					RENTER				
Income Range	1990	1995	2000	2005	2010	1990	1995	2000	2005	2010
<\$10,000	1,290	1,408	1,646	1,843	2,003	2,494	2,751	3,082	3,361	3,633
\$10,000-\$19,999	1,091	1,178	1,345	1,484	1,621	1,805	1,928	2,115	2,276	2,440
\$20,000-\$34,999	796	841	949	1050	1159	337	352	382	403	428
\$35,000-\$49,999	125	131	147	159	173	0	0	0	0	0
>\$50,000	44	46	54	60	66	0	0	0	0	0
TOTAL	3,346	3,604	4,141	4,596	5,022	4,636	5,031	5,579	6,040	6,501

Source: Shimberg Center for Affordable Housing, ASUM_PLK.XLS, 1995 base.(cbur-sum)

FUTURE HOUSING NEEDS

Consistent with national trends, decreases in average household size throughout the Lakeland Planning Area (an area inclusive of the City and a large area surrounding and outside City limits) are expected to continue through 2010. The continued decline is expected as a result of (1) the general social trend toward smaller families and non-family households, and (2) the changes in local housing mix toward a greater proportion of multi-family dwellings and mobile homes, especially for the ever increasing elderly permanent and seasonal populations in the Lakeland Planning area. Expectations with regard to household size (persons per household) are depicted in Table VII-7. Projection of other household data such as by income and tenure, number of persons in the household and age group are given at the end of Appendix VII-One, Tables VII-One(Q-S), found in the Technical Support Document.

**TABLE VII-7
PROJECTED AVERAGE HOUSEHOLD SIZE**

	1970	1980	1990	2000	2005	2010
City of Lakeland	2.90	2.46	2.37	2.31	2.29	2.28
Lakeland Planning Area	2.98	2.76	2.56	2.49	2.46	2.45

Source: City of Lakeland, Community Development Department. 1999.

Tables VII-8 and VII-9 estimate the number of housing units that will be required to support the City and the Lakeland Planning Area given projections for population, households and/or average household size.

**TABLE VII-8
HOUSING UNITS NEEDED TO SUPPORT THE PROJECTED POPULATION
CITY OF LAKELAND**

YEAR	POPULATION	AVERAGE HOUSEHOLD SIZE	# OF HOUSEHOLDS *	TOTAL HOUSING UNITS *
1990	70,576	2.29	29,791	34,933
2000	78,452	2.24	33,509	38,980
2005	102,018	2.19	45,563	48,156
2010	111,233	2.14	50,866	52,943

Source: US Census, 1990 and 2000; Lakeland Community Development Department, 2002.

**TABLE VII-9
HOUSING UNITS NEEDED TO SUPPORT THE PROJECTED POPULATION
LAKELAND PLANNING AREA**

YEAR	POPULATION	AVERAGE HOUSEHOLD SIZE	TOTAL HOUSING UNITS
1990	180,994	2.56	81,947
2000	228,329	2.49	91,698
2005	258,767	2.46	105,190
2010	278,202	2.45	113,552

Source: City of Lakeland, Community Development Department. 1999.

The total residential acreage was projected based on past existing land use trends and the City's population projections. The categories of residential densities needed to support the future population were then separated into low-density (25%), medium-density (68%) and high-density (8%) based on the proportional share allotted for each category. Table VII-10 outlines the acreage needed to accommodate residential uses within the City and Planning Area through 2010. The numbers in the table are related to Tables II-8 and II-9 in the Future Land Use Element. Table VII-10 indicates that Lakeland will require about 3,737 additional acres of residential medium density lands by 2010, for 14,525 total acres. There is some question regarding whether there will actually be a demand for high density housing in the unincorporated area surrounding the City since past trends indicate low density housing has predominated. Given that this is an area immediately outside the City's urban boundaries, it indicates a need for the County to give more attention to urban form and to maximize use of urban infrastructure. One strategy may be to improve consistency of County land use and transportation policies with the City.

**TABLE VII-10
PROJECTED RESIDENTIAL ACREAGE REQUIRED: 2000–2010**

YEAR	CITY OF LAKELAND*				LAKELAND PLANNING AREA		
	RH	RM	RL		RH	RM	RL
2001	1,245	10,788	3,473		1,345	13,700	18,266
2005	1,537	13,322	4,289		7,553	15,526	20,701
2010	1,676	14,525	6,389		1,669	16,692	22,256
RH = High Density Residential; 12.01 to 75 DU/Acre RM = Medium Density Residential; 5.01 to 12.0 DU/Acre RL = Low Density Residential; 0 to 5.0 DU/Acre							

Source: City of Lakeland, Community Development Department, 2002.

*NOTE: City land uses were updated in 2001 and again in 2002; the above corresponds with the latest update.

ISSUES AND OPPORTUNITIES

The ability of a local government to ensure an adequate supply of quality housing is one of the key factors in protecting the health, safety, and welfare of its citizens. For many years, the City of Lakeland has actively worked to address the housing needs of its citizens. The City, through the comprehensive planning process, has identified the following issues and opportunities in order to ensure the provision of affordable housing for existing and anticipated residents:

1. The improvement and rehabilitation of the existing housing stock to sustain existing stock while eliminating substandard housing conditions;
2. The provision of adequate infrastructure for new development and adequate sites to accommodate future housing needs, including sites for mobile homes and group homes;
3. Assistance in the provision of housing for very low, low and moderate income families, including assistance through the private sector market;
4. Administration and implementation of existing and new programs to enhance the supply of affordable housing and to improve the neighborhoods in which the housing stock is located; and
5. Assistance for the homeless population.

HOUSING CONSERVATION, REHABILITATION AND DEMOLITION

Housing conservation areas are those housing areas where structural deficiencies are minimal. These areas should be protected from blight and maintained at least at their present standard of development. Strict enforcement of the minimum housing code and the building and zoning standards given in the Land Development Regulations will continue to be needed. City Code enforcement must continue to address exterior property conditions such as overgrown lawns, junk cars, etc.

Rehabilitation efforts usually are made where structural deterioration is noted but restoration may occur within realistic economic limits. Demolition is reserved for those areas where blight has advanced to such a degree that no other approach is practical in economic terms. Typically, the existing structures are cleared creating vacant space for new development.

Numerous structures within the Lakeland Planning Area have been designated as historically significant. In addition, there may be other historic structures that have not yet been identified. When local renovations or demolitions are proposed, structures may need to be evaluated to determine their historical significance prior to work beginning. As shown in Illustration VII-3, the City has six residential historic districts and the downtown Munn Park Historic District. In addition, the Florida Southern

College campus, shown in Illustration VII-4, contains numerous buildings of historic significance due to their design by Frank Lloyd Wright.

CODE ENFORCEMENT

A statement made at every public meeting concerning housing and neighborhoods in recent years regards the need for more code enforcement. In response to these requests the City administration increased the personnel working in this activity. A more vigorous code enforcement program to rectify code violations is one of the most cost-effective tools in maintaining and improving City neighborhoods. The City has several code enforcement officers each of whom are assigned to a given area comprised of various census tracts, by which they compile code violation data. The City also uses a Code Enforcement Board, which meets monthly, to enforce codes and impose fines against properties, where necessary.

ADEQUATE SITES WITH SUPPORTING INFRASTRUCTURE

Existing residential areas within the City of Lakeland are, for the most part, provided with potable water and sewage disposal by treatment plants operated by the City. There are some on-site wastewater plants that operate in the City as a result of annexation, serving areas where septic tanks could not provide sufficient treatment capacity. There are also numerous, adequately functioning septic tanks in residential areas throughout the City; most of these septic systems existed prior to sewer availability or annexation.

The City of Lakeland is also served by an urban transportation system. In addition to its local streets, collector system, arterial and expressway roads, the planning area is served with rail, a regional airport and mass transit/bus service.

Under the concurrency requirement of this Comprehensive Plan, any proposed residential development must be analyzed to assure the availability of necessary services and facilities at acceptable levels of service. In addition, public facilities and services required to support future growth and development are addressed in the Infrastructure Element and the Capital Improvements Element of this Plan.

ADEQUATE SITES FOR GROUP HOMES AND FOSTER CARE FACILITIES

The City of Lakeland currently has several group homes and foster care facilities with a total housing capacity for more than 2,157 persons. This housing type is permitted within residential areas under the City's current Land Development Regulations. Facilities housing six or less persons are permitted in all single family zoning categories while facilities with more than six persons are restricted to multi-family zoning categories.

ADEQUATE SITES FOR MOBILE HOMES

Mobile homes represent one response to the affordable housing issue. The City of Lakeland permits mobile homes within mobile home parks and mobile home subdivisions. According to a 1997 survey of mobile homes conducted by Community Development Department staff, mobile homes represent approximately 18% of the total housing stock. The number of mobile homes within the City increased significantly between 1970 and 1985, due primarily to annexation. Since 1985, the percentage of mobile homes as part of the overall housing stock has remained relatively constant.

The City of Lakeland continues to ensure the availability of adequate sites within the City for the placement of mobile homes. While the City does not permit mobile homes on scattered lots, it does allow them in approved mobile home parks and subdivisions. As part of this ongoing effort, an analysis was done between the number of mobile homes placed and the number of sites available. Table VII-11 depicts the number of mobile homes as compared to the number of available sites.

TABLE VII-11
COMPARISON OF MOBILE HOMES PLACED TO NUMBER OF SITES AVAILABLE
1987 – 1997

YEAR	MOBILE HOME SITES	MOBILE HOMES PLACED	AVAILABLE LOTS
1987	6,162	5,335	827
1997	6,839	6,024	815

Source: City of Lakeland, Community Development Department. 1997.

As can be seen from the table above, the number of available sites for mobile homes has continued to exceed the number of mobile homes placed by about 800 spaces. If current trends hold constant, the City's existing supply of mobile home sites will be adequate to meet demand.

AFFORDABLE HOUSING

As with any developing area, the City of Lakeland's primary housing issue is the ability to provide acceptable and affordable housing to very low, low and moderate income households. Local programs are directed toward ensuring that housing opportunities exist for those whose incomes qualify them as such a household. The supply of low and moderate income housing is generally made available through an aging housing stock which "trickles down" as homeowners move up to more expensive homes. In recognition of this, the City of Lakeland has continued to emphasize enforcement of the Minimum Housing Code in order to preserve the existing housing stock. Lakeland has also continued to initiate and implement comprehensive neighborhood improvement plans to maintain and stabilize desirable residential characteristics.

According to the 1990 U.S. Census, about 4,000 City households (13% of all households) were below the poverty level, i.e., having incomes of less than \$12,700 for

a family of four. An additional 16% and 21%, or 11,000 total households, were in the “low and moderate income” groups respectively (where low income is defined as 51% to 80% of median income, and moderate income is 81% to 120% of median income). Assuming a constant percentage of low and moderate, of the estimated 33,527 households in 1998, approximately 5,364 were low income and 7,041 were moderate income households. Some of these households may require some form of public assistance in meeting their housing needs.

Lakeland's primary response to the housing affordability problem has been ongoing efforts to preserve older housing stock and maintain the desirability of all neighborhoods, in particular, neighborhoods in the central City which are closest to all urban services and which tend to contain the oldest housing stock. Secondly, the City continues to work with the private market on separate initiatives to create a greater supply of new affordable owner-occupied, single-family housing and affordable apartment or rental housing.

Affordable Housing Efforts The following is a summary of activities and programs being used to address affordable housing needs, most of which will continue through the planning period:

- Lakeland is an entitlement community receiving Community Development Block Grant funds on an annual basis. Lakeland's CDBG funds provide housing rehabilitation, clearance, temporary relocation, sidewalks, street paving, public facility improvements, code enforcement, paint program, neighborhood planning, and public services.
- The public services portion of the CDBG funds are allocated to such programs as Boys & Girls Clubs, Parker Street Summer Job Program, Shepherd House Tutoring Program, COPs Program, and Parks and Recreation Programs. Up to 15% of the CDBG annual budget is allowed for public services. In the 1999-2000 budget this translated to approximately \$135,000.
- CDBG funds provide for two code enforcement officers and clerical support for the Codes Division to assist the staff in monitoring the Northwest Target and Parker Street areas.
- The City participates in and is a recipient of funds from the Home Investment Partnership Program (HOME) and the State Housing Initiatives Partnership program (SHIP). HOME funds provide housing rehabilitation and home purchase assistance for very low and low income clients. SHIP funds provide housing rehabilitation and home purchase assistance for very low, low, and moderate income clients. The home purchase assistance program has assisted buyers on scattered lots throughout the City and in concentrated areas such as Harmony Hills, a 41-lot subdivision, the Orangewood subdivision (assistance given to 20 of the 95 lots), and in the Sixth Street area for four homes constructed by the Keystone CHDO.

- The City plans to give downpayment and closing cost assistance to assist a private lender initiative in the Parker Street Area, which will create several new, single-family, affordable homes. Initially five dwelling units will be constructed on contiguous lots in an architectural style similar to that which exists in the neighborhood. This will allow the units to blend into the neighborhood and minimize gentrification around the location of the new homes.
- SHIP requires jurisdictions to provide housing incentives. The City has several available to qualified home builders, but the most utilized are the impact fee reimbursement and the impact fee waiver. Normally individual builders will utilize a reimbursement in which they pay the impact fees and later are reimbursed a percentage of the fees paid based upon the income level of the person to whom the dwelling unit is sold, and where the home is located within the City (although the location qualifier may be discontinued). Large multiple unit housing projects usually take advantage of the impact fee waivers available for units for moderate or less income households. However, City impact fees which are “waived” are actually costs the City must absorb.
- County SHIP funds in the amount of \$200,000 were allocated in 1999 and are being used for rehabilitation of a minimum of 8 homes located in the Paul A. Diggs Neighborhood (exclusively). The County chose this area because it is a designated federal Weed & Seed area of assistance.
- The City began rehabilitation projects in its Northwest Target Area in 1978 and has approximately \$450,000 budgeted annually for the housing rehabilitation program in the area. About 35 units are rehabilitated each year, with about 615 homes rehabilitated since the program began through 1998. Homeowners and renters can also obtain paint and paint supplies for exterior improvements, based upon income eligibility.
- The Keystone Challenge Fund, Inc. is a non-profit organization dedicated to assisting low to moderate income families with obtaining financing for purchasing a home, new home construction, or rehabilitation of an existing home for purchase. Keystone was established in 1991 and originally sponsored by the City of Lakeland. Its primary purpose is to operate for the advancement of affordable housing. Keystone is designated as a Community Housing Development Organization (CHDO) in Lakeland and in Polk County.
- On an annual basis, Keystone has received 15% of the City’s HOME funds for housing development and 5% for activity delivery. Keystone has established a consortium of local lenders (banks) who provide affordable first mortgage financing for low and moderate income home buyers. All lenders have agreed to slightly relaxed underwriting guidelines and waive normal lender organization fees to assisted clients.

- Keystone also provides homebuyer counseling and home maintenance classes. Clients are assisted with all phases of home purchase including clearing credit problems. Keystone is linked to a consumer credit counseling program for applicants who do not yet qualify for loans due to poor credit history and poor budgeting skills.
- By the end of 1998 Keystone had closed approximately 339 loans using the City of Lakeland's Home Purchase Assistance Program. Of these loans, 36 were for new construction. Keystone closed by ethnic group the following loans: Caucasian 153 (45%); African-American 165 (49%); Hispanic 17 (5%); other 2 (1%); 131 loans, or 39%, went to single headed households.
- In 1999, LCA Development began constructing a 220 unit apartment complex on Providence Road (Providence Reserve) with Low Income Housing Tax Credits (LIHTC) financing. The City provided assistance in the form of impact fee waivers in the amount of \$474,474. Phase II of Providence Reserve is planned to contain 240 units. Eighty percent of Phase I of Providence Reserve is dedicated to low income clients and 20% is dedicated to very low income clients; units must remain affordable for 50 years.
- The Weed & Seed Program initiated in Lakeland for the Paul A. Diggs Neighborhood in 1996. The "Weed" portion of the program has included using law enforcement resources to crackdown on neighborhood criminals and drug trafficking while the "Seed" portion initiated programs for tutoring, after-school programs, computer classes for youth or adults, confidence/self-esteem programs, job training, and the establishment of a "safe haven" for youth inside a city-owned facility that was renovated with \$35,000 of city funds. Lakeland received \$100,000 in "weed" money for each year from 1995-99, while City "seed" money received for the same years totaled \$510,000. The City may be forced to cut back the Weed & Seed Program once Federal funding is reduced to the City. However, key components of the program, such as the coordinator position and programs for youth, should be maintained to retain the community benefits from the "seed" activities.
- The City contributed to the funding of new security camera system being used at most of the locations of public housing in Lakeland, in partnership with the Lakeland Housing Authority which applied for and was awarded over \$250,000 for the system.
- The Parker Street/North Lake Wire Taskforce meets monthly to address all housing issues in the target neighborhoods. Attendees include City staff, civic and church organizations, police, code enforcement, etc. Community Development staff has conducted a vacant lot survey in the Diggs and Parker Street neighborhoods, two of the City's poorest areas, and is formulating a strategy for clearing title and encouraging home ownership on the infill lots.
- The City loaned \$180,000 for infrastructure improvements to a 41-lot affordable housing subdivision (Harmony Hills) located in the Northwest Target Area. As of mid-1999, the developer reported that 16 of the lots had been sold.

- The City provided \$125,000 for exterior and interior repairs (rental rehab loan funds) to Dakota Park Apartments, a 40-unit complex in the northwest target area, featuring large 3, 4 and 5 bedroom apartments. The Lakeland-Polk Housing Corporation, a non-profit organization, joined a for-profit firm, Regency Investment Associates, to form the Dakota Park Limited Partnership to purchase the apartments in 1998. In early 1999 they applied for housing tax credits which would preserve the apartments for lower income residents. The Lakeland Housing Authority may use these as relocation residences for clients displaced by public housing demolition and reconfiguration.
- The Lakeland Housing Authority has received HOPE VI funds for demolition of outdated housing complexes, reconfiguring the campuses of two large complexes, construction of single family housing units, and construction for economic development on site. All families will be relocated either on the existing sites, satellite sites, or in homeownership situations. The Housing Authority's effort to improve the Washington Park and Lake Ridge Public Housing Projects is referred to as the "Washington/Ridge Community Renaissance" as per their HOPE VI application. On August 25, 1999, the U.S. Dept. of Housing and Urban Development awarded Lakeland approximately \$21,843,000 for its 1999 HOPE VI Grant Application. Additional details about the Lakeland Housing Authority projects, including efforts to assist clients with job training, are included in Appendix VII-One in the Technical Support Document.
- The City continues to identify vacant lots located in target neighborhoods in order to assemble and/or sell the lots for redevelopment. In conjunction with the Lakeland Housing Authority, the City identified vacant lots in the Paul A. Diggs neighborhood, including a few which will be assembled together to form a "model block" that will serve as a prototype for redevelopment of other, scattered vacant lots in the neighborhood.
- As of mid-1999, the Lakeland Housing Authority (LHA) had issued about 690 certificates and vouchers under the Section 8 rent subsidy program. The waiting list consisted of about 822 persons. LHA applied for 473 more vouchers for the next fiscal year but funding is not guaranteed. Also, the duration of vouchers has decreased from a 15 year contract to an annual contract, with renewal subject to the level of congressional funding of the federal budget for the Department of Housing and Urban Development. It is possible that some Section 8 vouchers within the City will not be renewed by the landlords/rental managers as well. The LHA will work with those impacted to ensure housing alternatives are available. It should be noted that the Section 8 rental assistance program often encourages landlords to renovate units in order to make them more marketable; this in turn promotes housing and neighborhood revitalization.
- The City continues to explore use of Community Redevelopment Areas as a tool for revitalization. The Lakeland Downtown Development Authority (LDDA) is a Community Redevelopment Area (CRA) in which impact fees are waived and tax increments are reinvested in the area through loans. In 1999, the City Commission

adopted a resolution declaring its intent to establish the Paul A. Diggs Neighborhood as a Community Redevelopment Area. A Request for Qualifications was published in June 1999, with regard to a proposed Mid-Town Community Redevelopment Area (see Illustration VII-5), to include Diggs and other neighborhoods and adjoining the downtown CRA to ensure adequate commercial or non-residential areas that normally yield a tax increment more quickly than residential areas. CDBG and Weed & Seed administrative funds will be used to pay a consultant to develop a comprehensive plan for the proposed CRA.

- The City began assisting the residents of the Dixieland Historic District in 1999 with their effort to establish Design Guidelines for housing rehabilitation (exterior) similar to those used by the City for rehabilitation in the Lake Morton Historic District. The Historic Preservation Board for Lakeland meets monthly to review issues and plans in the districts, especially those districts with design guidelines, including the downtown/Munn Park district.
- The City regularly holds leadership training for neighborhood leaders and assists with publication of neighborhood newsletters, homeowners association formation, community policing substations and crime watches, street lighting, parks, traffic calming, street beautification/clean-up and other programs.

Overall, the City of Lakeland remains very committed to assisting neighborhoods and improving and sustaining the housing stock within the neighborhoods that comprise Lakeland.

PRIVATE SECTOR HOUSING DELIVERY PROCESS

Traditionally, the private housing market has met the housing needs of moderate and higher income households. The existing and older housing stock in Lakeland is somewhat more affordable and therefore also offers some units to lower income households to own or rent. This is one reason conservation and rehabilitation of the housing in Lakeland's historic districts is important. These older units often are smaller square footage units on smaller lots, and therefore the prices are lower than most newly constructed housing in the City. Using the "affordable housing" definition, families should spend no more than 30% of the total household income on housing. A family with an annual income of \$30,000 would have an adequate income to purchase a \$70,000 home or to lease rental housing in the City of Lakeland. Families with incomes of this level or higher have nearly total freedom of choice in the current housing market.

A successful housing delivery system requires the coordination of a number of professionals, firms, businesses, and industries. However, these players cannot function without the support and assistance of numerous other participants including land owners, real estate brokers, title companies, architects, engineers, surveyors, lawyers, lending institutions, etc. These, and more, make up the housing delivery system. The four following factors play a large role in a successful housing delivery system:

1. **Land:** There is adequate land available within the City of Lakeland and the Lakeland Planning Area for housing construction through the planning period.

2. **Services:** The availability of services associated with the construction of housing is a concern. The permitting and installation of necessary infrastructure for new residential subdivisions can often be a tremendous financial burden to local governments. This point out the advantage of new construction on infill lots where infrastructure already exists.

The City administers a concurrency management program that requires adequate services to be in place at the time needed. A certificate of concurrency must be issued prior to final development approval.

3. **Financing:** Historically, four major financing mechanisms have been provided by the private sector.

1. Conventional Mortgages
2. Home Improvement Loans
3. Secondary Mortgage Loans
4. Rent Restructuring

The chief private sector participants in lending authorization are financial institutions such as banks, credit unions, savings and loans, and mortgage companies, as well as developers. However, few developers can complete a project using only their own money. Most of them look to mortgage lenders and to equity investors for a major share of project financing. The availability of mortgages and home improvement loans depends on overall money market conditions. When credit gets tight, mortgage and home improvement loans may be difficult to obtain or are prohibitively expensive. This can slow down the real estate market and lower values.

The private sector financing mechanisms typically meet the needs of the middle and upper income housing market in the Lakeland area. However, the housing needs of the lower income housing market often are the focus of special attention, usually in the form of public assistance as discussed in this element.

4. **Government regulations:** The regulatory and administrative roles of government agencies need to be periodically evaluated to identify problems and opportunities affecting the capacity of the private sector housing delivery system. Lakeland has a relatively expedient permitting system, newly computerized, to serve local builders and developers. The City's Land Development Regulations (LDRs) which govern land development and include zoning restrictions and setbacks, are at least annually reviewed to refine, streamline or clarify regulations.

NEIGHBORHOOD IMPROVEMENT PROGRAM

In September of 1988 the City Administration and City Commission initiated a program within the Community Development Department to study Lakeland's neighborhoods

and implement an ongoing Neighborhood Improvement Program. It was recognized that many code enforcement, housing, and zoning issues required a neighborhood-wide effort to be effectively addressed. The prototype for the program was the South Lake Morton Improvement Program. Due to staff constraints, it was proposed that only one neighborhood at a time would be studied, a plan developed, and an implementation program put in place. The initiation point for neighborhood plans is the Future Land Use Element of the Lakeland Comprehensive Plan. Since then, Lakeland has also worked with several other neighborhoods including: Dixieland, Lake Hunter Terrace (both historic districts), Diggs, Webster, Westlake, Parker Street and Lake Wire.

Although the neighborhood improvement program is most needed in Lakeland's poorest neighborhoods, other neighborhoods on the brink of decline were given priority since these neighborhoods, over the long term, would require less City resources and assistance if acted upon before the problems became severe. Theoretically, the program would operate in all neighborhoods where incompatible zoning, commercial land uses, and high volumes of through traffic, or isolated housing problems have created an obstacle to healthy development of the area. In an attempt to expand and/or intensify the City's neighborhood improvement program, in 1999 the City Commission indicated their support for hiring additional neighborhood planning staff.

The neighborhood improvement program envisioned and has been used to address not only traditional problems of code enforcement and housing decline, but also to operate in an interventionist mode to correct problems (traffic, zoning) that diminish the strength of an otherwise viable neighborhood. This kind of program appears especially important in Lakeland where there exist many well-defined older neighborhoods which are suffering some degree of decline but where stabilization is possible given timely and adequate attention to the problems.

With any program designed to improve neighborhoods, a number of elements are necessary to be successful. The first of these is resident participation. Thus, one of the City's first objectives for working in a neighborhood is to identify and nurture any neighborhood leadership as well as to encourage formation of neighborhood associations and perhaps other property-owner groups. The City also works with its Citizens' Advisory Committee, which has a traditionally strong neighborhood orientation.

Ideally, the neighborhood improvement strategy involves documenting neighborhood needs through surveys, interviews, and neighborhood meetings and then using local resident desires as a guide in pursuing the most needed changes. A second required element is local government support. This is usually in the form of project administration for public facility type improvements and code enforcement. It also may involve seed money to initiate particular changes through a loan or grant program or in the form of public improvements.

The third element of neighborhood improvement is private reinvestment. Local governments can reinvest in neighborhoods by increasing code enforcement activities and police presence; improving utilities, parks, streets, sidewalks and lighting; and

providing housing improvement incentives or grants. Ultimately, however, an increased amount of private reinvestment must occur for a neighborhood to maintain an improved condition. This is the strategy of all improvement programs initiated by the City. The degree of success depends on many factors including local perceptions of neighborhood value, interest rates, dynamics of the local housing market, social problems such as crime and unemployment, and land use and zoning patterns. Obviously, the City is not able to influence all of these factors but can, to a great degree, improve those that relate to zoning and land use, housing deterioration and deferred maintenance, the condition of public rights-of-way and facilities, and crime.

The neighborhood improvement program is intended to be a broad-based program that allows staff to work with neighborhood residents to analyze and identify specific neighborhood problems and implement improvement strategies which can eliminate these problems and help to preserve and strengthen the viability, attractiveness and character of Lakeland's declining or threatened neighborhoods. This process usually will include four steps: data gathering; neighborhood meetings; preliminary findings and presentation to the neighborhood; and final report and presentation to the City Commission. Implementation is a longer process that depends primarily on the commitment of available and new resources, and interest and participation of the neighborhood residents. Continued implementation of new programs may require continued increases in personnel in the Community Development Department for planning, code enforcement, and other activities.

SPECIAL HOUSING NEEDS AND THE HOMELESS

Special housing needs of the elderly and disabled are mostly to be met through conventional single-family homes, apartments, mobile homes, and group homes. While there should be an adequate supply to meet the needs, some persons may need to utilize available subsidized units (see Appendix VII-One in the Technical Support Document.)

Approximately 1.2% of the nation's population, or over 2.7 million persons, are homeless. In the Lakeland area the estimated number of homeless on a given day varies. A March 1998 State (Department of Children and Families, DCF) report cited 2,918 homeless in the Lakeland area. The head count by agencies serving the City's homeless in February was 142 in 1996 and 135 in 1999. A distinction should be made between the resident homeless and transients. Local residents who lose their homes and are not accommodated by friends or relatives invariably become clients of local service agencies. The Salvation Army has such a program for homeless families where they are sheltered and helped to resume living in a home on their own. There are also several local area ministries that administer programs for homeless and transient persons offering shelter, meals, work and counseling.

One need identified by the local providers has been the need for improved coordination and planning among the various service agencies. The City of Lakeland is a member of a local coalition for the homeless, formed to assess the extent of homelessness and to coordinate actions and services to assist in meeting the needs of homeless persons.

The coalition is not currently a direct provider of housing. In 1998, Polk County hired a consultant to file an application for HUD's Continuum of Care for the Homeless (SuperNOFA); Lakeland and Winter Haven assisted with the application. The application was successful and \$1.4 million was awarded for use within Polk County. This application and the coalition's partnership between the cities, county and homeless service providers resulted in HUD giving the coalition its "Best Practices Award".

Another local homeless issue which surfaced in the late 1990's was that of sheltering women and children and how to accommodate their needs in addition to the traditional concern of shelter for single men. Most homeless shelters in the City are planning to build or add increased capacity for women and families while also addressing the need for transitional housing for those ready to step beyond emergency shelter solutions. See details in Appendix VII-One, Table VII-One(P) in the Technical Support Document. Local ministries, including the Talbot House, have also added regular medical and dental services to their mix of basic services offered to the homeless.

Illustration VII-1
Lakeland Neighborhood Boundaries

Illustration VII-2
CDBG Target Area in Lakeland

Illustration VII-3
City of Lakeland Historic Districts

Illustration VII-4
Florida Southern College

**Illustration VII-5
Proposed Mid-Town CRA**

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to housing issues. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the measurable and attainable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Housing Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and with the other elements of this Comprehensive Plan and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan.

GOAL: **Promote the provision of adequate, safe and affordable housing for existing and future populations including those with special housing needs.**

Objective 1: Assist the private sector in providing new housing units over the planning period to ensure provision of housing of various types, sizes, and costs that meet the shelter needs of existing and projected populations, including the needs of very low, low and moderate income households and persons with special housing needs. Provide downpayment assistance to approximately 150 qualified persons by 2005, and another 150 by 2010.

Policy 1A: The City of Lakeland will continue to designate or reserve sufficient amounts of suitable land to accommodate the anticipated needs of residential growth. Estimates of acreages needed for residential growth are given in this Element.

Policy 1B: Residential sites mapped on the Future Land Use Map will permit a diversity of housing types, including conventional homes, mobile homes, manufactured housing, multi-family units, group homes and foster care facilities. Criteria concerning location is addressed in Lakeland's Land Development including location of group homes.

Policy 1C: The City of Lakeland will continue to include in its land development regulations allowances for special housing facilities (i.e., group homes, foster homes) within residential areas. As per state law, group facilities of six or fewer persons shall be allowed in single-family zoning districts while larger facilities shall be allowed in multi-family districts.

Policy 1D: As an incentive to participate in the provision of affordable housing, Lakeland will offer surplus City property, including potential "infill lots" at a discounted

cost, to developers or individuals who agree to build housing targeted for very low, low and/or moderate income households. This incentive will be available for households above moderate income if located in target neighborhoods with very low income levels.

Policy 1E: The City of Lakeland will continue to work with the local coalition for the homeless as well as qualified non-profit and private sector groups to promote adequate shelter and transitional housing for the local homeless population.

Policy 1F: The City of Lakeland will continue to assist eligible persons displaced by public projects.

Policy 1G: The City of Lakeland will continue to evaluate the building permitting process to ensure a highly efficient review procedure for residential construction and elimination of any outdated or unnecessary requirements in building codes. Building Division staff in conjunction with the Community Development Department shall formulate a brief evaluation report at least every five years, beginning in 2002, regarding the efficiency of the existing permitting system. The report may include results of an informal sample survey of local builders and contractors to determine if there are any procedures that they perceive as inefficient or overly burdensome.

Policy 1H: The City of Lakeland will increase the availability of low-income housing by making a portion of CDBG grant funds available to local non-profit groups for acquisition of sites for the construction of housing units affordable to very low and/or low income households.

Policy 1I: The City of Lakeland will provide for the placement of mobile homes and manufactured housing consistent with Section 320.8285 and Section 553.38(2), Florida Statutes.

Policy 1J: Lakeland will continue to offer financial incentives in order to assist in the provision of adequate housing affordable to very low, low, and moderate income households. These incentives include allowing clustering of lots and zero lot-line development; allowing “accessory” housing; waiving application fees, processing fees and/or reimbursing impact fees for qualified affordable housing projects and allowing smaller units on smaller lots as consistent with City Land Development Regulations.

Policy 1K: Lakeland will continue to offer downpayment and closing cost assistance to qualified applicants of very low, low, and moderate incomes using federal and state grant programs.

Policy 1L: Analysis of impediments to fair housing choices will be reviewed every five years in conjunction with the update of the City’s Consolidated Plan and Strategy for expenditure of federal funding. Plans will be developed and implemented on an on-going basis to remove identified impediments to fair housing choice to the extent possible.

Objective 2: Eliminate substandard housing conditions through rehabilitation or demolition. Rehabilitate or replace at least 25 substandard housing units per year.

Policy 2A: The City of Lakeland will continue to utilize Community Development Block Grant funding as well as other Federal, State, and local subsidy programs to implement the Housing Rehabilitation program.

Policy 2B: All new City redevelopment districts shall include a component to address housing rehabilitation needs in the district, where applicable.

Policy 2C: The Minimum Housing Code will continue to be enforced for all residential units, including conventional homes, manufactured homes, mobile homes, group homes, and foster care facilities, throughout the City of Lakeland.

Objective 3: Strengthen neighborhoods by continuing to implement the City's Neighborhood Improvement Program for older and/or declining neighborhoods to promote stability and revitalization of the City's existing neighborhoods. Target two new neighborhoods at least every 5 years for intensive revitalization efforts.

Policy 3A: Residential neighborhoods will be protected through implementation of neighborhood improvement plans which address stability, safety, traffic, aesthetics and character including historic resources. The City will annually evaluate and make available to the public its prioritization of neighborhoods needing assistance.

Policy 3B: The City of Lakeland will continue to promote the conservation and restoration of historically significant housing through the work and role of the City's Historic Preservation Board and Design Review Committee, the maintenance of the City's historic structures database, and technical support for designated historic districts.

Policy 3C: City Land Development Regulations will continue to include buffering and other provisions which protect residential neighborhoods from potentially incompatible land uses.

Policy 3D: The City of Lakeland will develop ordinances as necessary to combat neighborhood and housing deterioration and will adequately fund the code enforcement function to uphold standards in all neighborhoods. The City will also continue its commitment to use the community oriented policing program (COPs) to improve neighborhood resident safety.

Objective 4: Support efforts of public and private organizations to develop and implement innovative housing programs which increase housing availability to very low, low and moderate income households; in particular, programs which locate such housing within mixed income, stable neighborhoods.

Policy 4A: The City of Lakeland will continue to be a partner with the Keystone Challenge Fund which qualifies potential homeowners for federal and State assistance and mortgage loan processing. The City will provide financial support to the Keystone program to the extent allowed and will work with Keystone and other local non-profit organizations as part of Lakeland's neighborhood revitalization program.

Policy 4B: The City of Lakeland will coordinate the development of housing programs the Lakeland Housing Authority, Polk County, the Polk County Builders Association, lending institutions, and other public and private agencies.

Policy 4C: The City of Lakeland will provide technical assistance to neighborhood associations and other non-profit groups to foster neighborhood improvement, innovative housing solutions, and preservation and restoration of historic housing.

Policy 4D: The City will continue to support the efforts of the Lakeland Housing Authority in its attempt to renovate and de-concentrate local public housing as well as to improve the surrounding neighborhoods in which public housing exists. This effort will include the conversion of approximately 64 public housing units into units which will be made available for affordable home ownership.

Policy 4E: The City will continue to support infill lot re-use for existing or new residential development. Strategies shall include conducting inventories of vacant lots in target neighborhoods and sharing the inventory with potential developers and/or builders. The City will also work with the Lakeland Housing Authority in its efforts to build on vacant, infill lots to improve target neighborhoods and to provide affordable replacement homes that would offer homeownership opportunities for existing tenants of public, rental housing.

Policy 4F: The City will continue to offer impact fee waivers and reimbursements for qualified affordable housing projects.

Policy 4G: The City shall continue to support the local "Weed and Seed" program including efforts to provide summer day camp and job training opportunities, and computer tutoring for residents and youth participating in the program.

Policy 4H: The City shall work with the Polk County School Board to ensure the local schools in older or declining neighborhoods are maintained and revitalized, where necessary.

Policy 4I: To encourage greater mix of income in neighborhoods and to assist in fair housing efforts, the City will continue to support the Lakeland Housing Authority's applications for additional funding for its Section 8, subsidized housing program.

Policy 4J: Targeting approximately 8% of new housing demand through 2010, during the planning period the City will use downpayment assistance, impact fee reimbursements and other housing programs and incentives to assist a minimum of approximately 550 very low, low and moderate income households in meeting their housing needs with new housing, rehabilitated housing and/or rental assistance payments.

Objective 5: Continue to identify and protect historically significant housing.

Policy 5A: By 2002, implement design review for the Dixieland Historic District.

Policy 5B: The City of Lakeland will continue to work to effectively protect and preserve structures deemed to be historically significant through the enforcement of appropriate design guidelines.

Policy 5C: The City of Lakeland will continue to promote the conservation and restoration of historically significant housing through the National Register of Historic Places designation, local historic designation, and assistance from the City's Historic Preservation Board.

Objective 6: Ensure that persons and businesses displaced by local government programs receive uniform and equitable treatment in finding relocation housing.

Policy 6A: The City of Lakeland will assist in finding standard housing at affordable costs for persons displaced through local government action.

APPENDIX VII-ONE

HOUSING INVENTORIES & DATA

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

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HOUSING INVENTORY

In 1990, single family units comprised 52.6 of the housing stock. There were 18,408 single family homes and 7,955 multi-family units. Table VII-One(A) shows the comparison between the City of Lakeland and unincorporated Polk County regarding the number and percentage of owner- versus renter-occupied housing. As would be expected in an urban area, there is a higher percentage of rental housing available in the City than in the unincorporated area. The unincorporated County, however, has almost twice as many mobile homes in its housing stock. The City does not allow new mobile home set-ups anywhere except for in mobile home parks or subdivisions. As Table VII-One(B) indicates, the City had a considerably higher percentage of multi-family units in all categories of size than the County, and only about on-half as many mobile homes.

TABLE VII-ONE(A)
OWNER-OCCUPIED VS. RENTER-OCCUPIED HOUSING

	LAKELAND		POLK COUNTY	
TYPE	# Of Units	% of Total	# Of Units	% of Total
Owner-occupied	17,509	59%	109,885	70%
Renter-occupied	12,147	41%	46,084	30%

Source: U.S. Bureau of the Census, 1990.

TABLE VII-ONE(B)
NUMBER OF DWELLING UNITS BY TYPE
1990

	LAKELAND		POLK COUNTY	
UNITS IN STRUCTURE	# of Units	%	# of Units	%
Single Family				
Attached	1,054	3.0	4,140	2.2
Detached	17,354	49.7	99,825	53.6
Two Family	2,451	7.0	8,868	4.7
Multi Family				
3-4 family	1,789	5.1	6,379	3.4
5-9 family	2,226	6.4	5,716	3.1
10-19 family	1,408	4.0	3,600	1.9
20-49 family	925	2.6	1,843	1.0
50+ family	1,607	4.6	3,095	1.6
Mobile Homes	5,823	16.7	51,155	27.5
Other	296	0.9	1,604	1.0
TOTAL	34,933		186,225	

Source: U.S. Bureau of the Census , 1990.

AGE OF HOUSING

Table VII-One(C) identifies the relative age of the housing stock in the City of Lakeland. Approximately 26% of the housing units in Lakeland were constructed between 1970 and 1979, while 48% were built prior to 1970. The City's housing stock is older than that of Polk County. In Polk County, 28% of the housing stock was constructed during 1970 through 1979, while only 38% was built prior to 1970.

**TABLE VII-ONE(C)
UNIT AGE
CITY OF LAKELAND, 1990**

	LAKELAND		POLK COUNTY	
Unit Age	# of Units	% of Total	# of Units	% of Total
1989 to March 1990	792	2%	6,673	4%
1985 to 1988	3,667	10%	27,027	14%
1980 to 1984	4,833	14%	30,445	16%
1970 to 1979	8,955	26%	51,682	28%
1960 to 1969	5,625	16%	28,620	15%
1950 to 1959	5,086	15%	21,521	12%
1940 to 1949	2,888	8%	9,373	5%
1939 or earlier	3,087	9%	10,884	6%
TOTAL	34,933	100%	186,225	100%

Source: U.S. Census, 1990.

GROSS RENT OF HOUSING

Table VII-One(D) presents the gross rent of renter-occupied units in the City of Lakeland. In 1990 over 62% of the monthly rents were between \$250 and \$499. The median rent in the City of Lakeland was \$403 according to the 1990 census figures. The median rent in Polk County was \$386/month which is 4.2% lower than that in the City of Lakeland.

**TABLE VII-ONE(D)
MONTHLY GROSS RENT OF RENTER-OCCUPIED UNITS
CITY OF LAKELAND, 1990**

	LAKELAND		POLK COUNTY	
Gross Rent	Total	%	Total	%
Less than \$100	297	2.5	574	1.3
\$100 to \$149	349	2.9	1,234	2.7
\$150 to \$199	334	2.8	1,457	3.2
\$200 to \$249	532	4.4	2,705	5.9
\$250 to \$299	974	8.0	4,602	10.1
\$300 to \$349	1,476	12.2	6,299	13.8
\$350 to \$399	1,878	15.5	6,880	15.1
\$400 to \$449	1,557	12.9	6,056	13.3
\$450 to \$499	1,621	13.4	4,975	10.9
\$500 to \$549	833	6.9	2,865	6.3
\$550 to \$599	676	5.6	1,811	4.0
\$600 to \$649	461	3.8	1,315	2.9
\$650 to \$699	311	2.6	868	1.9
\$700 to \$749	250	2.1	632	1.4
\$750 to \$999	187	1.5	834	1.8
\$1000 or more	154	1.3	503	1.1

	LAKELAND		POLK COUNTY	
Gross Rent	Total	%	Total	%
No Cash Rent	220	1.8	1,944	4.3
TOTAL	12,110		45,554	
MEDIAN RENT	\$403		\$386	

Source: U.S. Bureau of the Census, 1990.

VALUE OF HOUSING

Table VII-One(E) presents the value of owner-occupied housing in the City of Lakeland according to the 1990 Census figures. According to the data, approximately 50% of the housing in the City of Lakeland is valued between \$50,000 and \$99,999. The median value of the housing units is \$61,000. In Polk County the median value of housing is estimated to be \$61,000 with 58% of the units being valued between \$50,000 and \$99,999.

TABLE VII-ONE(E)
VALUE OF OWNER-OCCUPIED HOUSING
CITY OF LAKELAND AND POLK COUNTY, 1990

	LAKELAND		POLK COUNTY	
VALUE	owner-occupied housing units	%	owner-occupied housing units	%
Less than \$15,000	134	1.1	1,290	1.8
\$15,000 to \$19,999	162	1.3	1,171	1.6
\$20,000 to \$24,999	236	1.9	1,780	2.5
\$25,000 to \$29,999	523	4.1	3,011	4.2
\$30,000 to \$34,999	488	3.8	3,316	4.6
\$35,000 to \$39,999	781	6.1	4,439	6.2
\$40,000 to \$44,999	932	7.3	5,656	7.8
\$45,000 to \$49,999	1,043	8.2	5,012	7.0
\$50,000 to \$59,999	1,897	14.9	9,765	13.5
\$60,000 to \$74,999	2,594	20.4	13,442	18.7
\$75,000 to \$99,999	1,888	14.8	11,979	16.6
\$100,000 to \$124,999	690	5.4	4,683	6.5
\$125,000 to \$149,999	494	3.9	2,481	3.4
\$150,000 to \$174,999	248	1.9	1,391	1.9
\$175,000 to \$199,999	202	1.6	843	1.2
\$200,000 to \$249,999	171	1.3	877	1.2
\$250,000 to \$299,999	85	0.7	382	0.5
\$300,000 to \$399,999	77	0.6	267	0.4
\$400,000 to \$499,999	64	0.5	154	0.2
\$500,000 or more	23	0.2	138	0.2
TOTAL SPECIFIED OWNER-OCCUPIED HOUSING UNITS	12,732		72,077	
MEDIAN VALUE	\$61,000		\$60,700	

Source: U.S. Bureau of the Census, 1990.

MONTHLY MORTGAGE COSTS

Table VII-One(F) shows the mortgage status of owner-occupied housing units in the City of Lakeland. Approximately 58% of the housing units in the City of Lakeland have a monthly mortgage cost between \$300 and \$699. The median monthly mortgage cost in 1990 was \$572 compared to a \$583 median monthly mortgage cost in Polk County. According to the 1990 Census, 56% of the housing units in Polk County have a monthly mortgage cost ranging from \$300 to \$699.

TABLE VII-ONE(F)
MONTHLY MORTGAGE COST OF OWNER-OCCUPIED HOUSING UNITS
CITY OF LAKELAND AND POLK COUNTY, 1990

	LAKELAND		POLK COUNTY	
MONTHLY MORTGAGE	Total	%	Total	%
Less than \$200	191	2.4	969	2.1
\$200 to \$299	527	6.6	3,370	7.5
\$300 to \$399	926	11.7	5,343	11.9
\$400 to \$499	1,425	18.0	6,886	15.3
\$500 to \$599	1,232	15.5	7,048	15.7
\$600 to \$699	1,028	13.0	6,037	13.4
\$700 to \$799	717	9.0	4,668	10.4
\$800 to \$899	413	5.2	3,272	7.3
\$900 to \$999	343	4.3	2,154	4.8
\$1000 to \$1249	478	6.0	2,578	5.7
\$1250 to \$1499	212	2.6	1,131	2.5
\$1500 to \$1999	279	3.5	893	1.9
\$2000 or more	135	1.7	430	0.9
TOTAL	7,906	99.5	44,779	99.4
MEDIAN MORTGAGE	\$572		\$583	

Source: U.S. Bureau of the Census, 1990.

HOUSING AFFORDABILITY

Tables VII-One(G) and VII-One(H) show the monthly owner cost as a percentage of income. Based on 1990 Census data, approximately 83% of the home owners in the City of Lakeland and in Polk County pay less than 30% of their income toward monthly housing costs. However, an estimated 13% in the City and 11% in the County pay more than 35% of their income for housing costs each month. Approximately 16% of both jurisdictions paid over 30% of their income for housing.

**TABLE VII-ONE(G)
MONTHLY OWNER-OCCUPIED, COSTS-TO-INCOME
CITY OF LAKELAND**

1990 COSTS TO INCOME RATIO						
INCOME	less than 20%	20 - 24%	25 - 29%	30 - 34%	35% or more	TOTAL
less than \$10,000	302	219	109	53	767	1450
\$10,000- \$19,999	1,107	213	153	111	561	2,145
\$20,000- \$34,999	1,979	627	381	268	252	3,507
\$35,000- \$49,999	1,763	414	180	48	51	2,456
\$50,000 or more	2,648	254	137	14	22	3,075
TOTAL	7,799	1,727	960	494	1,653	12,633

Source: U.S. Bureau of the Census, 1990.

**TABLE VII-ONE(H)
MONTHLY OWNER-OCCUPIED, COSTS-TO-INCOME
POLK COUNTY**

1990 COSTS TO INCOME RATIO						
	less than 20%	20 - 24%	25 - 29%	30 - 34%	35% or more	TOTAL
less than \$10,000	1,988	964	862	576	3,480	7,870
\$10,000- \$19,999	6,561	1,189	864	806	2,797	12,217
\$20,000- \$34,999	11,341	3,204	2,213	1,384	1,562	19,704
\$35,000- \$49,999	10,720	2,490	884	387	260	14,741
\$50,000 or more	14,648	1,477	563	207	81	16,976
TOTAL	45,258	9,324	5,386	3,360	8,180	71,508

Source: U.S. Bureau of the Census, 1990.

Tables VII-One(I) and VII-One(J) present the monthly renter costs as a percentage of income. In both the City and the County approximately 31% of renters pay monthly housing costs which exceed 35% of their income. According to the 1990 Census data, for both jurisdictions, about 60% of renters pay less than 30% of their income towards monthly housing costs, while the other 40% pay over 30%.

**TABLE VII-ONE(I)
MONTHLY RENTER-OCCUPIED, COSTS-TO-INCOME
CITY OF LAKELAND**

1990 RENT TO INCOME RATIO						
INCOME	less than 20%	20 - 24%	25 - 29%	30 - 34%	35% or more	TOTAL
less than \$10,000	148	129	169	176	2,176	2,798
\$10,000- \$19,999	197	468	817	646	1,249	3,377
\$20,000- \$34,999	1,516	1,062	551	160	164	3,453
\$35,000- \$49,999	1,295	138	23	0	0	1,456
\$50,000 or more	583	34	5	0	0	622
TOTAL	3,739	1,831	1,565	982	3,589	11,706

Source: U.S. Bureau of the Census, 1990.

TABLE VII-ONE(J)
MONTHLY RENTER-OCCUPIED, COSTS-TO-INCOME
POLK COUNTY

1990 RENT TO INCOME RATIO						
INCOME	less than 20%	20 - 24%	25 - 29%	30 - 34%	35% or more	TOTAL
less than \$10,000	321	371	451	596	8,612	10,351
\$10,000- \$19,999	1,209	2,129	2,666	2,524	4,224	12,752
\$20,000- \$34,999	6,526	3,472	1,718	584	462	12,762
\$35,000- \$49,999	4,227	485	66	18	19	4,815
\$50,000 or more	2,272	111	18	7	0	2,408
TOTAL	14,555	6,568	4,919	3,729	13,317	43,088

Source: U.S. Bureau of the Census, 1990.

Overall, the City and County figures for median rent, mortgage costs, value, owner costs, and rent-to-income or renter costs are similar. The 1990 data did not reveal any large gaps between the two jurisdictions in terms of affordability except in the type of housing. That is, where Lakeland offers more rental housing and the County offers more mobile homes.

INVENTORY AND CONDITION OF HOUSING

The 1990 U.S. Census gives us an idea of the housing conditions from survey data they collected regarding interior deficiencies in space (square footage per occupant), heating and/or completeness of kitchens and bathrooms. These conditions are shown in Table VII-One(K).

TABLE VII-ONE(K)
SUBSTANDARD HOUSING CONDITIONS
CITY OF LAKELAND AND POLK COUNTY

1990 CENSUS AREA	# Units without Heat	# Units without Plumbing	# Units with incomplete Kitchens	Total Substandard and as a % of all units	# Units, 1.01+ persons per room	Total of Substandard or Overcrowded Units	Total of All Housing Units
Polk County	1,005	751	948	2,704 1.5%	6,338	9,042 4.8% of All Units	186,225
Lakeland	132	99	215	446 1.3%	940	1,386 3.9% of All Units	34,933

Source: U.S. Bureau of the Census, 1990.

In addition, most planning agencies perform some type of windshield survey of exterior housing conditions between decennial censuses. Lakeland's windshield survey of 1987 preceded the adopted plan (1991), followed by a "3/4" (of housing stock) survey in 1992 and a sampler of code violation data in 1996.

Informal windshield surveys involve staff driving through residential developments/neighborhoods and categorizing housing as either standard or substandard, based on observations regarding the exterior conditions of the housing. Substandard housing is then usually separated into the categories of housing which might be rehabilitated versus housing which is so dilapidated it is a candidate for demolition.

In 1987, the housing inside the City limits was estimated to total 27,304 net units. Of the total, 430 (1.6%) were found to be blighted or substandard but able to be rehabilitated, while 156 (0.6%) were found to be structurally substandard/candidates for demolition. Most of the substandard housing was found in the Northwest Target Area, and in the Lake Beulah and Parker Street areas. In 1992, the Community Development staff surveyed about 20,241 housing units, or about 58% of the total units. They found 376 or 1.86% to be substandard, with 71% located in 5 neighborhoods on the north side of the City (Webster, Diggs, Martin Luther King, Lake Wire and Parker Street).

Due to the low percent of total housing being found to be in substandard conditions in past surveys, in 1996 the Planning Division staff decided to sample the condition of the housing which had been subject to codes citations through out the City. Data was taken from the Codes Enforcement data base for all Census Tracts within the City, and from every code enforcement officer's records, for 1991-1996. (See Table VII-One(T) for details.) After deleting duplicate entries which were violations on the same unit addresses over the time period, the data was re-presented in a spread sheet-type survey to the Code Enforcement staff who were asked to indicate if the units currently had a violation of structural or non-structural nature, and if the unit needed structural minor or major repair or demolition.

Of the total units surveyed, over half (63%) were found in five census tracts on the north and west sides of the City (tracts 112.01, 112.02, 102, 108 and 110) comprising Diggs, Parker St., Webster, Lake Wire, Dixieland and part of Lake Hunter Terrace neighborhoods. These are the same neighborhoods that the 1992 planning survey found to hold most of the substandard units in the City at that time. About 112 or 9.2% had been demolished. The number demolished over the period indicates the emphasis the City placed on code enforcement as a means to obtain neighborhood revitalization (in fact, 83% of the units demolished were located in the same five census tracts cited above). Survey results, found in Table VII-One(L), indicate only about 1% were found to need demolition in 1996, and about 5% needed major repair. Standard units equal about 96% of the net units surveyed. A comparison was then made with the 1987 data.

TABLE VII-ONE(L)
SURVEY OF LAKELAND HOUSING CONDITIONS
1996 AND 1987

HOUSING SURVEYS	Total of Standard Units	Units Needing Major Repair	Units Needing Demolition
1996 Housing Survey, Code Enforcement Data (1,105 units)	1043 (94%)	57 (5.2%)	8 (0.7%)
1987 Housing Survey (Windshield) (27,304 units)	26,703 (97.8%)	437 (1.6%)	164 (0.6%)

Source: City of Lakeland Community Development Department, 1996 and 1987.

Of the total units needing major repairs, 68% were located in the same 5 census tracts and neighborhoods discussed above, i.e., located on the City's north and west sides. The five census tracts and corresponding neighborhoods have on-going revitalization and neighborhood planning efforts including formation of neighborhood associations, community policing stations, code enforcement, parks revitalization. Streetscaping has largely been limited to the historic neighborhoods and has not included most of the north side area. The above data indicates that the City was targeting its efforts on the neighborhoods most in need of assistance. Similar assistance to other areas must proceed as part of the overall strategy of stabilizing and revitalizing City neighborhoods. This may be limited by staff resources and the level of City/public resources that a given neighborhood requires over a given timeframe. As neighborhoods mature, the efforts and resources of the residents in the neighborhood should reduce City staff involvement.

INVENTORY OF RENTER-OCCUPIED HOUSING UNITS (SUBSIDIZED)

An update of the subsidized housing data is presented in Table VII-One(M). Many of the units are between 20 and 40 years old. The age of the units will tend to translate into higher maintenance needs; the cost of such maintenance and for complying with current building codes is usually passed on to renters unless funded by some type of grant to perform rehabilitation work. Grant funding will primarily be limited to the public housing units.

Table VII-One(N) inventories child care facilities, developmental facilities for the disabled, nursing homes, and assisted living facilities (for adults). The number of assisted living facilities in and near Lakeland is expected to increase over the planning period due to the growth of the proportion of elderly residents and the current federal, state and local housing strategies which promote assisted living as a more affordable and independent lifestyle alternative to nursing home care.

**TABLE VII-ONE(M)
FEDERALLY SUBSIDIZED HOUSING DEVELOPMENTS
CITY OF LAKELAND, IN 1996**

Name & Location	Year Built	Expected Life	No. Units/Type
<i>Public Housing</i>			
Lake Ridge Homes 1121 MLK Jr. Ave., Lakeland, 33805	1942	20+ yrs.	160 Family & Elderly
Westlake 501 S. Hartsell Ave., Lakeland, 33801	1942	20+ yrs.	60 Family & Elderly
Washington Park Homes 1420 N. Florida Ave., Lakeland, 33805	1952	20+ yrs.	220 Family & Elderly
Westlake Addition, 501 S. Hartsell	1953	20+ yrs.	60 Family & Elderly
John R. Wright Homes* 2310 Elizabeth St., Lakeland, 33801	1981	40+ yrs.	20 Family & Elderly
Cecil M. Gober Villa 2626 N. Florida Ave., Lakeland, 33805	1981	40+ yrs.	37 Elderly
Paul Colton Villa* 1919 W. 10th St., Lakeland, 33805	1981	40+ yrs.	72 Family & Elderly
Bonnett Shores Apartments 303 N. Brunnell Parkway, Lakeland, 33801	1981	40+ yrs.	75 Family & Elderly
Lakeview Garden Apartments 1216 Unitah Ave., Lakeland, 33803 (near Lk Hunter)	1974	40+ (renovating in 1997)	44 Family & Elderly
<i>*=Outside but adjacent/very near City limits.</i>			
<i>Section 8 Existing Units Subsidy Program</i>			
Certificates (scattered locations)			580 Family & Elderly
Vouchers (scattered locations)			99 Family & Elderly

Name & Location	Year Built	Expected Life	No. Units/Type
<i>Section 8 Moderate Rehabilitation</i>			
Scattered Locations			29 Family & Elderly
<i>Rehabilitation Programs in CDBG Target Area</i>			
Section 312 (scattered locations)			no longer active in City*
CDBG Rehabilitation (scattered locations)			551 Family & Elderly**
Rental Rehabilitation (scattered locations)			no longer active in City;* some funding still available
<i>Section 236 Rental Assistance</i>			
Lake Presbyterian Apartments	1971	20+	96 Elderly
Bonny Apartments 1104 U.S. Hwy 98 S., Lakeland	1974	20+	200 Family & Elderly
<i>Section 202 Direct Loans for Housing for the Elderly or Handicapped</i>			
Lakeview Place 515 Orange Street, Lakeland	1985	40+	104 Elderly
<i>Section 8 New Construction</i>			
Crystalwood Apartments 1935 Crystal Grove, Lakeland	1983		64 Family & Elderly
<i>Section 8 Rent Supplement</i>			
Lakewood Terrace Apts (formerly Citrus Gardens) 1315 W. 14th St., Lakeland		40+	132 Family & Elderly

Source: City of Lakeland Community Development Department, 1997.

* means City no longer seeks funding for this type of program within Lakeland

** this was reported in 1987 as a cumulative total, i.e. all units rehabilitated since 1977; the new number adds to the old total and reflects units rehabilitated 1988 - 1996.

GROUP HOMES

**TABLE VII-ONE(N)
INVENTORY OF GROUP HOME FACILITIES IN
THE CITY OF LAKELAND, 1996**

CHILD CARING/CHILD PLACING FACILITIES			1996
No.	Facility Name & Administrator	Facility Address & Phone No.	Capacity
1	Children's Home Society Rose Keller Division	842 Missouri Avenue S. Lakeland, FL 33802	12
2	Florida Baptist Children's Home	1015 Sikes Blvd. Lakeland, FL 33802	48
3	Peace River Care I	851 W. Carole Street Lakeland, FL 33802	10
4	Peace River Care Transition	1030 Central Avenue Lakeland FL 33802	8
5	St. Francis Shelter/Catholic Social Services	801 E. Palmetto Street Lakeland, FL 33801	26

Source: Florida Department of Children and Families, District 14, T. Oberhausen

DEVELOPMENTAL HOMES			1996
No.	Facility Name & Administrator	Facility Address & Phone No.	Capacity
1	El Camino Group Home	4124 El Camino Real Lakeland, FL 33801	6
2	Fern Group Home	216 Westover Street Lakeland, FL 33801	6
3	Hibiscus Group Home	630 Holly Place Lakeland, FL 33801	6
4	Oconee Group Home	104 Oconee Street Lakeland, FL 33805	6
5	Polk County AHC	220 Carleton Street Lakeland, FL 33813	6
6	Sonrise Communities	711 Wilson Avenue PO Box 1007 Lakeland, FL 33802	12
7	Sonrise Communities	9040 Alicia Road Lakeland, FL 33801	8

Source: Florida Department of Children and Families, District 14, T. Oberhausen

NURSING HOMES				1996
No.	Facility Name & Administrator	Facility Address & Phone No.	Capacity	
1	Arbors of Lakeland	2020 W. Lake Parker Drive Lakeland, FL 33805 (941)682-7580	120	
2	Carpenter's Home	1001 Carpenter's Way Lakeland, FL 33805 (941)853-3847	60	
3	Florida Presbyterian Nursing Center	909 Lakeside Avenue Lakeland, FL 33801 (941)688-5521	40	
4	Highland Lake Center	4240 Lakeland Highlands Road Lakeland, FL 33813 (941)646-8699	179	
5	Integrated Health Service	3110 Oakbridge Blvd. E. Lakeland, FL 33803 (941)648-4800	120	
6	Imperial Village Care Center	5245 N. Socrum Loop Road Lakeland, FL 33809 (941)859-1446	120	
7	Lakeland Hills Center	610 E. Bella Vista Drive Lakeland, FL 33805 (941)688-8591	120	
8	Lakeland Health Care Center	1530 Kennedy Blvd. Lakeland, FL 33809 (941)858-4402	300	
9	Trinity Nursing Center	1919 Lakeland Hills Blvd. Lakeland, FL 33805 (941)688-5612	150	

Source: Florida Department of Children and Families, District 14, T. Oberhausen

ASSISTED LIVING FACILITIES (ALFs)				
No.	Facility Name & Administrator	Facility Address & Phone No.	Capacity	
1	Carpenter's Home Villa, (Administrator: Faye Townsend)	1001 Carpenter's Way Lakeland, FL 33809; (941)859-4249	60	
2	Dove's Nest, Inc. (Administrator: Andrea Cox)	825 E. Plum Street Lakeland, FL 33801 941-686-6378	24	
3	Florida Presbyterian Homes, Inc. (Administrator: Gene Yeazell)	16 Lake Hunter Dr. Lakeland, FL 33803 941-688-5521	150	
4	Grand Court Lakeland (The) (Exec. Director: Lucretia Andress)	400 S. Florida Ave Lakeland, FL 33811 941-682-5463	71	

ASSISTED LIVING FACILITIES (ALFs) (continued)			
5	Lake Morton Retirement Center (Administrator: Anastasia Morrow)	610 E. Lime Street Lakeland FL 33801 941-682-7232	36
6	Lake Wire Retirement Center (Administrator: Jacquelyn Dawson)	315 W. Peachtree St. Lakeland, FL 33815 941-686-7306	44
7	Park Club at Oakbridge (Administrator: Patricia Lovell)	3110 Oakbridge Blvd. E. Lakeland, FL 33803 941-647-1199	110
8	Renaissance of Lakeland (Administrator: Yvonne Slicker)	810 Bella Vista Lakeland, FL 33805 941-688-9993	52
9	Residence Retirement Center, Inc. (Administrator: Phyllis Richards)	208 Marveline Dr. Lakeland, FL 33815 941-687-7100	43
10	Senior Meadows of Lakeland (Administrator: Jo Lucas)	2111 Lakeland Hills Boulevard Lakeland, FL 33805 941-688-1126	134
11	TLC Retirement Residence (Administrator: Monica Campbell)	747 Bon Air Street Lakeland, FL 33805 941-688-1196	70

Source: Polk County Health Department, Environmental Health Division, B. Acker and State Health Care Administration Agency

INVENTORY AND CONDITION OF MOBILE HOME PARKS

The Community Development Department's mobile home park condition survey in 1987 revealed that very few units were in poor condition. Of the 5,382 units surveyed, only 118 or 2.2% were in poor condition, and another 101 or 1.2% were in "fair" condition. Therefore, in 1996, after the updated inventory of all mobile home parks inside the City was completed to update total number of units, spaces available and their address/park locations, this inventory was sent to a County Health Department official responsible for inspection of mobile home parks. The County official earmarked six parks out of 36 parks and 2 subdivisions in the inventory; the earmarked parks were known to have a history of substandard units and/or yard conditions. Community Development staff agreed with the earmarking and conducted a windshield survey of those six parks.

The results of the Department's sample windshield survey indicated that two of the smaller, denser parks were predominantly occupied by units in such poor condition that they are dilapidated (beyond reasonable repair costs). A total of about 56 units were dilapidated and 8 more units in those two parks plus a third park were considered substandard but repairable. All three parks are located in census tracts to the north and/or west of downtown. The sample of units located in the other 3 parks found minor repair needs to standard conditions; these parks were located east/southeast of downtown. Thus, a total of 64 units or 1% of the total (6024) units in the City were found to be in poor condition. As a sample, this represents 64% of the units found to be in poor condition in the 1987 survey.

Table VII-One(O) is an inventory of mobile home and RV parks in the City of Lakeland. The corresponding Illustration VII-One(A) depicts the location of these parks. There are a total of 5,709 mobile homes/RVs and 6,469 spaces, leaving 760 available. This does not include mobile home subdivisions which contain another 315 units and 370 spaces, leaving a total of 815 available spaces.

TABLE VII-ONE(O)
LAKELAND MOBILE HOME & RV PARK INVENTORY, 1997

	Park Name, Address	Cen. Tract	# Mobiles or RVs	Total # Spaces	Acreage	Density
1	Ariana Village MHP 1625 Ariana St. 23-28-23-42	109	167	210	38.5	4.3
2	Beacon Hill Colony 1112 W. Beacon Rd. 25-28-23-43	107	201	201	30.0	6.7
3	Beacon Terrace 2425 Harden Blvd. 26-28-23-21	120.02	297	297	20.0	14.8
4	Bellair Mobile Terrace 3660 S. Florida Ave. 06-29-24-33	106.01	58	71	2.7	21.4
5	Citrus Center 1111 W. Beacon Rd. 25-28-23-34	107	228	228	30.0	7.6
6	Colonial Village 845 Pinewood Ave. 23-28-23-12	109	93	104	15.0	6.2
7	El Camba 1841 George Jenkins Blvd. 14-28-23-42	110	101 90MH/11RV	101	10.0	10.1
8	Florida Holiness Campground 3335 S. Florida Ave. 36-28-23-21	107	87	87	8.8	9.8
9	Fountainview Estates 5025 N. Rd. 98 25-27-23-34	122	197	197	32.0	6.1
10	Foxwood Village MHP 4444 US 98 North 26-27-23-34	121.02 Co: City:	123 177	177 177	32.0 32.5	1.9 5.4
11	Georgetown 1501 Ariana Street 23-28-23-14	109	186	187	21.6	8.6
12	Golden Wings MHP 2709 Providence Rd. 01-28-23-43	112.01	40	47	5..0	8
13	Hearne Trailer Court 1214 E. Lemon St. 17-28-24-44	103	3	5	0.7	4.2

	Park Name, Address	Cen. Tract	# Mobiles or RVs	Total # Spaces	Acreage	Density
14	Heatherwood Village 1925 S. Harden Blvd. 26-28-23-12	120.02	308	308	58.6	5.25
15	Hickory Hills 1600 Josephine St. 23-28-23-23	109	280	368	29.3	9.5
16	Hilltop 4 Oleander Circle 18-28-24-21	108	46	47	1.8	25.5
17	Imperial Manor Terrace 2321 New Tampa Hwy 15-28-23-24	120.02	84	200	25.0	3.3
18	Ken's 224 Tyler Ave 17-28-24-44	103	108	117	7.0	15.4
19	King's Manor 1500 W. Highland St. 23-28-23-23	109	187	200	10.0	18.7
20	Kings & Queens 2808 N. Florida Ave. 01-28-23-12	114	105	107	20.2	5.1
21	Lakeland Harbor 4747 State Road 33 30-27-24-23	115	504	504	76.6	6.5
22	Lakeland Junction 202 E. Griffin Rd. 06-28-24-22	114	191	191	25.8	7.4
23	Lake Bonny 1840 N. Crystal Lake Dr. 20-28-24-22	103	105	106	13.2	8.0
24	Lake Parker Court 1140 E. Lemon Street 18-28-24-22	103	22	28	2.7	8.1
25	Lakeview 4606 S. Florida Ave. 07-29-24-33	118.01	42	42	4.6	9.1
26	Lazy Palm Village 2965 U.S. 92 West 22-28-23-33	120.02	19	20	0.8	23.75
27	May Manor 340 Brunnell Parkway 14-28-23-23	110	294	297	48	6.1

	Park Name, Address	Gen. Tract	# Mobiles or RVs	Total # Spaces	Acreage	Density
28	Oak Hill 1331 Oak Hill Street	109	56	84	11.4	4.9
29	Oakview County Est. MHP 2600 Harden Blvd. 26-28-23-22	120.02	167	403	54	3.1
30	Pine Grove Park 2245 New Tampa Hwy 15-28-23-22	120.02	27	32	2	13.5
31	Semloh 1113 E. Lemon Street 18-28-24-22	104	12	12	0.01	1,200.0
32	Sherwood Manor 1200 N. Davis Ave 11-28-23-43	111	143	159	21	6.8
33	Sterling 209 N. Wabash Ave 14-28-23-43	110	338	340	38.5	8.7
34	United Trailers 120 S. Fortner Ave. 17-28-24-44	103	11	11	1	11.0
35	Woodalls 2141 George Jenkins Blvd. 15-28-23-22	120.02	240	342	34	7.0
36	Woodbrook Estates 1510 Ariana St. 26-28-23-14	120.02	462	462	80	5.7
Subtotal:			5709	6469		
MOBILE HOME SUBDIVISIONS						
1	Crown Point Estates MH Sub. 352-492 Kalt Drive 01-28-23-12	114	23	77	14.5	1.5
2	Lakeside Hills Estate (MHS) 520 Forest Lake Dr. 25-27-23-12	122	292	293	47.5	6.1
Subtotal:			6024	6839		

Source: City of Lakeland Community Development Department, 1997.

ILLUSTRATION VII-ONE(A)
Mobile Home & Rv Park Inventory

INVENTORY OF HISTORIC HOUSING

The City of Lakeland now has five historic districts. Three were added after 1991. The City has a nine member Historic Preservation Board (HPB) and associated Design Review Committee. The HPB reviews and discusses issues common to all five districts while the Design Review Committee reviews requests for certificates to alter the exterior of historic structures or structures in the historic districts of Munn Park (downtown), South Lake Morton, and East Lake Morton.

MUNN PARK

No changes have occurred in the ordinance for this district since the adoption of the Comprehensive Plan. However, the Terrace Hotel has been renovated and reopened as a hotel with a restaurant and meeting rooms.. In addition, the New Florida Hotel is no longer an Adult Congregate Living Facility, but is being proposed for office and hotel usage. The District contains approximately 51 total contributing buildings, sites, structures or objects with 28 additional non-contributing structures.

SOUTH LAKE MORTON

No changes have occurred in this district since the time of adoption of the Comprehensive Plan. There are approximately 577 historic buildings and structures in this District. Much renovation activity has occurred in this District and a majority is in excellent or good condition, mostly serving as private residences or rental properties.

DIXIELAND

There are 470 historic buildings in the Dixieland neighborhood. The Bungalow style is the most common formal design found in the Dixieland area. Approximately 94% of these buildings are considered to be in either excellent or good condition. Of the 470 buildings, 449 originally served as residences, and today 439 are still being used as private residences.

EAST LAKE MORTON

Development of historical significance in the East Lake Morton area occurred between 1900 and 1942. Of the 170 buildings in the area, 59% were constructed between 1920 and 1928 during the Florida Land Boom period. Originally 88% of the buildings served as private residences, and 83% continue to serve the same purpose. The historic building stock in the East Lake Morton area has been found to possess a significant degree of integrity. Of the historic sites in the area, 76% have been recorded as being in either excellent or good condition.

BEACON HILL

About 62 of the eighty-three recorded houses within the Beacon Hill-Alta Vista neighborhood were built during the 1920's; a few older homes were moved into the neighborhood. These historic residences represented a wide variety of styles ranging from modest frame vernacular to Colonial Revival to Tudor Revival. The Bungalow style appeared to be the most common, with twenty-five Boom-time examples extant. Most of the residences were of wood frame construction and were one- to two-stories in height.

HOUSING ACTIVITY (NEW PERMITS)

Since the last April 1990 Census through December 1998, the City of Lakeland has permitted 1,637 single family units, 1102 multi-family units and 650 mobile home set-up permits. Another 755 housing units have been annexed and 593 units have been demolished over the same period. The net gain in total housing units for the period was 3,551, added to the 1990 Census-derived total of 34,933 housing units equals 38,484 total housing units in December 1998. Average annual net gain was about 254 units. Multi-family units permitted varied widely each year, with only 42 units permitted in 1996, 143 in 1994, 377 in 1997 and 328 in 1998. The development of multi-family units is largely in response to

market conditions and vacancy rates for rental units. Rental vacancies in Lakeland are historically quite low.

Of the units permitted from April 1990 through December 1998, 46% were single family, 31% were multi-family, and 18% were for mobile homes. New mobile homes are permitted only in mobile home parks. Annexed units represented 21% of all new units in the City but the majority were annexed in one year, 1998, when the City annexed the Highland Fairways subdivision (668 units).

HOMELESS POPULATION

According to information gathered by Community Development Dept. staff, an inventory of homeless persons has been tabulated via surveys by emergency shelter organizations for each year 1992-97, in the January/February vs. October/November time periods. Coldest nights are normally in January or February so those numbers tended to be higher than the fall numbers. The total counted in 1996 equaled 142 or about 0.2% of the City's total population; a statewide study estimated that about 1,607 or 0.3% of the County population in 1995 were homeless.

Males made up the majority of the City's homeless population for each year, with children being measured as of the fall of 1993. In February 1993, males comprised about 93% of the homeless population counted (7% were females). In February of 1999 males comprised about 79% of the population as compared to children and women who comprised about 6% and 15% respectively for 1999. This seems to mirror the national trend of an increase in the counted homeless who are females or youth with a corresponding small decrease in the male homeless population. As a result, more local transitional housing for the homeless families and for women with children are being developed (built or renovated) in order to give them more than just an overnight shelter. Transitional housing focuses on providing a place to live while the tenant learns job skills and attains other necessary assistance to gain self-sufficiency as well as permanently occupied shelter. Local projects to provide transitional housing include:

- a planned 52-bed shelter for women and children, plus classrooms and counseling at the Lighthouse Ministry's Eloise Troxel Memorial Building, an addition to the H.O.P.E. Center on Parker Street;
- Salvation Army's HOPE Center, constructed in 1997, which includes a shelter, food service playground, and daycare for children, located in downtown Lakeland; and,
- a 10 apartment facility, built by Talbot House and dedicated in 1998, located on Parker Street next to a site for a new emergency shelter, medical clinic, etc.

An emergency/overnight shelter will soon be constructed in the Parker Street neighborhood to replace the existing Talbot House shelter located on Massachusetts Avenue, near downtown. This shelter provides food, clothing, overnight shelter, some drug rehabilitation and transitional living programs. While this will be a replacement facility, the new facility will be significantly larger. Parker Street Ministries also is active in addressing homeless issues. Table VII-One(P) indicates bed capacity for local shelters.

Many of the homeless in the City were found to be employed, usually as day laborers or truck drivers, with dental and medical services cited by shelter clients as being most helpful. There is a medical clinic open at the Talbot house on Saturdays in which over seventeen doctors participate. Clients who show signs of mental or emotional illnesses are given an evaluation by a clinical psychologist once a week at a nearby church.

In terms of overall characteristics of the local homeless population, a February 18, 1999 survey included data for those staying at the three shelters mentioned above (Talbot House, Lighthouse Ministries, and Salvation Army) plus those staying at the Catholic Social Service's St. Francis Shelter (transitional living for women and children). The data indicated that 60% of the clients were white males, 23% were black males, and 12.5% were white females. Five percent were single parent with a child and 7% were under the age of 18.

The predominant age group was 35 to 45, with ages 26 to 55 comprising 72% of all clients. Eighty-eight percent of clients who agreed to be interviewed had service needs for either substance abuse (60%),

severe mental illness (7%) or both (28%). About 29% of the clients at these shelters on that night were employed, most as day labor. Their most urgent needs were related to a need for (a) housing, (b) work, (c) food, and (d) medical services and/or transportation. They listed the following services as being most helpful: (a) dental services, (b) Bible study, (c) job training, and (d) medical services. Most of those interviewed were originally from another city in Florida, followed by those from Lakeland. About 40% had spent 6 months or less in Polk County and 25% had been in the County between 7 months and 5 years. Twenty-one percent had been in the County 16 or more years.

**TABLE VII-ONE(P)
HOMELESS SHELTER CAPACITY (AS OF MID 1999)**

SHELTER	CURRENT BED CAPACITY	PLANNED BED CAPACITY	CURRENT TRANSITIONAL UNITS	PLANNED TRANSITIONAL UNITS	
SALVATION ARMY					
Jose 682-8179					
Male	30		6		
Female	10		4	4	
Female w/children	10				
Female, children, families			60		
TALBOT					
Paula 687-8475					
Male	50	100			
Female	8				
Female w/children					
Female, children, families					
Male/Female (10 Apts.)			18		
LIGHTHOUSE					
Gary 687-3705					
Male	92		8		
Female					
Female w/children					
Female, children, families				100	
ST. FRANCIS SHELTER					
686-7153					
Male					
Female					
Female w/children	26				
Female, children, families					
TOTALS	226	100	96	104	GRAND TOTAL 526

Dated: July 8, 1999 nc

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Source: Lakeland Area Homeless Shelters and City of Lakeland Community Development Dept., 1999.

LAKELAND HOUSING AUTHORITY AND PUBLIC HOUSING ACTIVITIES, 1999

Below is an excerpt from information that the Lakeland Housing Authority provided to the City of Lakeland, Community Development Department, for its One Year Action Plan and Projected Use of Funds for Fiscal Year 1999-2000, as sent to the U.S. Dept. of HUD.

(2) Public Housing:

The Lakeland Housing Authority (LHA) public housing improvements for FY 1999-2000 will continue with the interior rehabilitation of structures at Westlake Apartments (utilities and exterior of structures have been completed including lead based paint abatement). Completion of Westlake is scheduled for late 1999. Design documents for the renovations at Lake View Gardens are complete and construction will start in mid 1999 with completion phased over several years. Bonnet Shores roofing and siding work is near completion. John Wright Homes and Cecil Gober Villas roofing and siding will be completed in 1999. Repairs to Lake Ridge and Washington Park siding, soffits and fascia will be completed in 1999. A lead based paint hazard control plan is also being developed for these two sites. Refrigerators and ranges are replaced as needed. Site beautification efforts include clean up of retention ponds; plantings at site offices and management efforts to enforce litter control. Chain link fencing around the Washington Park retention ponds was replaced in 1998 with decorative metal fencing. Office and warehouse renovations will be completed in 1999 at the administration building. LHA receives approximately \$1 million per year for capital and facilities improvements.

LHA has established an agreement with the Lakeland-Polk Housing Corporation (LPHC) to work toward mutually agreed upon objectives. LPHC is the managing general partner of the Dakota Park Limited Partnership which has acquired a forty-unit run down apartment complex known as Dakota Park Apartments. With a \$125,000 rental rehab loan from the City of Lakeland and other private resources, renovations have begun that will be completed by the summer of 1999. A \$2 million low-income housing tax credit application was submitted in 1998, but not funded for this project. Another application for 1999 funding was submitted in January, 1999.

Based upon the philosophical and statutory changes outlined in the Housing and Work Responsibility Act of 1998, LHA is continuing management and physical improvements that will lead to public housing becoming mixed income housing and Section 8 housing being housing for the lowest income populations. A private developer partner, The Communities Group, has been selected as LHA's "lead developer" and is assisting in creating the HUD mandated five-year master strategic plan. This plan is a continuation of past strategic planning efforts and will include the following elements:

- demolition of functionally obsolescent public housing,
- renovations to remaining housing so that it is attractive to higher income applicants,
- temporary and permanent relocation of affected residents,
- replacement of demolished housing with elderly housing,
- mixed income/mixed finance housing and business or commercial use,
- self-sufficiency and economic development efforts,
- conversion of some public housing to affordable homeownership opportunities,
- construction of infill housing in public housing neighborhoods,
- cooperation with non-profits and other collaborative partners to make available social services for residents,
- cooperation with the Lakeland-Polk Housing Corporation and other community agencies in acquiring and renovating apartments and housing for rental or affordable homeownership,
- pursuit of federal, state, and local funding that would make possible the above activities, including HOPE VI, housing tax credits, designation of a Community Redevelopment Area as defined under Florida statutes, various bond issuances and other HUD and affordable housing funding.

LHA has been successful in applying for the following grant programs:

- Public Housing Drug Elimination Program - \$224,000;
- Safe Neighborhood Program - \$250,000;
- Economic Development and Supportive Services - \$678,000.

LHA has strongly supported Lakeland Police Department in its COPS Universal Grant for \$75,000 and Lakeland Presbyterian Homes New Approach Anti-Drug Program Grant for \$250,000. These two programs have increased police presence in public housing neighborhoods and will install a security camera system that will be monitored in the police department.

LHA has also received approval from the Florida Apprenticeship Council for its apprenticeship program, which was required before submittal to HUD of its STEP-UP pre-apprenticeship program. LHA has received National Association of Housing and Redevelopment Officials National Awards of Merit for its Healthy Families Polk partnership and Housing Investigator program.

In the area of Fair Housing, the LHA has begun housing counseling efforts in its Section 8 program to encourage Fair Housing Choices. This counseling includes providing information to applicants about housing choices available in non-minority and higher income census tracts and providing transportation to view specific housing options. Fair housing brochures and information are available and publicly displayed at all sites. Through Florida Rural Legal Services, LHA has plans to use their countywide computer network that will be connected to all public libraries to promote fair housing information and choices.

The Economic Development and Supportive Services funding through the existing HUD grant provides the foundation for public housing family self-sufficiency and has allowed the LHA to develop important linkages with area Work Force Development Board (WFDB) programs (welfare reform efforts). In fiscal year 1999 the LHA plans to expand its self-sufficiency collaboration with the WFDB administration by applying for Welfare to Work and Family Unification Section 8 vouchers which would provide housing payment assistance to eligible welfare recipients. These programs will allow lower income persons to move closer to their workplace and provide quality housing choices to families where poor housing prevents the return of foster children to their parents.

LHA offers a variety of self-sufficiency programs and activities for residents of all ages. The programs are not in all instances funded by LHA and are, therefore, not restricted to public housing residents. Facilities are offered by LHA to agencies and community programs that bring resources from other funding sources such as the Department of Labor, Weed and Seed, Department of Juvenile Justice, Department of Education and private contributions. As an active partner in the City of Lakeland LHA encourages private citizens who live in adjacent residences to public housing neighborhoods to participate in any activity which does not involve a charge per individual. Every effort is made to tear down the invisible fences around public housing in an effort to build strong relationships and positive communication. Working families are encouraged to apply for public housing. Child care, security, transportation, and other community activities support single parents in their goal of becoming self-sufficient.

Some of the activities, programs, and opportunities include:

EDUCATION

- Adult Literacy facilitators
- College students assisting with homework
- Computer Aided Learning Stations on the complexes with PLATO and JumpStart software
- Licensed teachers tutoring on Monday evenings on each complex
- Software programs for learning computer skills such as typing, accounting, and word processing
- Talent Search – College Recruitment Project

ECONOMIC DEVELOPMENT

- Apprenticeship Program – Management Trainee Program
- Career Center – WAGES activities
- Child care Facilities
- Family Self Sufficiency Programs
- Micro-lending program – Business start up assistance for residents of public housing

- Resident Council Development
- Summer Youth Employment and Training Program
- Teen Pregnancy Prevention/Teen Parent – Drop out Retrieval Programs
- Vocational Skills training

Lakeland Housing Authority Continued:

YOUTH ACTIVITIES

- Boy Scouts/Girl Scouts
- Campfire Boys and Girls
- Florida Southern college
- Girls, Inc.
- Montessori – Family Preservations
- Southeastern Bible College
- Victory Assembly KIDS Club – Puppet Ministry
- VISTA
- Weed and Seed
- YEA – Youth Excel and Achieve
- Youth for Christ Breakfasts

PERSONAL GROWTH AND DEVELOPMENT – SUPPORTIVE SERVICES

- Bible Studies and visiting Churches
- COPS Offices and special personal safety programs
- Healthy Families Polk
- Meals on Wheels
- The FALLS Adventure – ROPES Course
- University of Florida – 4H Extension Programs
- Volunteers In Service To The Elderly (VISTE)

SPECIAL EVENTS

- Martin Luther King Resident Recognition event
- Volunteer Recognition Event

The LHA is not designated as “troubled” by HUD, i.e., it is not performing poorly.

TABLE VII-ONE(Q)
PROJECTION OF HOUSEHOLD INCOME BY HOUSING TENURE

INCOME	OWNER HOUSEHOLDS					INCOME	RENTERHOUSEHOLDS				
	1990	1995	2000	2005	2010		1990	1995	2000	2005	2010
0-5K	691	750	889	1014	1111	0-5K	1376	1498	1661	1812	1972
5-10K	1588	1738	2020	2242	2428	5-10K	1589	1773	2004	2184	2348
10-12.5K	1004	1091	1258	1398	1527	10-12.5K	935	1003	1115	1218	1314
12.5-15K	835	895	1021	1142	1265	12.5-15K	666	724	801	862	920
15-17.5K	861	936	1065	1159	1254	15-17.5K	946	997	1090	1175	1263
17.5-20K	787	843	953	1041	1134	17.5-20K	671	713	764	802	853
20-22.5K	884	948	1088	1211	1334	20-22.5K	840	890	975	1028	1082
22.5-25K	889	951	1083	1195	1306	22.5-25K	669	700	752	798	850
25-27.5K	1034	1083	1214	1345	1490	25-27.5K	608	623	673	713	762
27.5-30K	896	942	1048	1145	1263	27.5-30K	425	430	459	476	499
30-32.5K	896	948	1075	1192	1312	30-32.5K	638	676	746	790	836
32.5-35K	776	808	903	1004	1124	32.5-35K	410	426	460	487	520
35-37.5K	669	697	773	841	917	35-37.5K	406	430	467	492	518
37.5-40K	528	548	612	676	744	37.5-40K	271	277	300	318	338
40-42.5K	657	690	774	833	894	40-42.5K	320	340	371	392	419
42.5-45K	488	508	572	634	703	42.5-45K	156	161	172	189	209
45-47.5K	457	483	536	561	589	45-47.5K	212	222	238	255	273
47.5-50K	332	352	398	435	478	47.5-50K	94	104	121	128	133
50-55K	606	636	715	775	836	50-55K	186	199	219	231	246
55-60K	499	514	574	640	707	55-60K	77	83	93	97	97
60-75K	1123	1205	1415	1595	1754	60-75K	199	219	247	265	278
75-100K	636	680	800	912	1010	75-100K	98	105	118	123	126
100-125K	279	297	347	391	429	100-125K	45	50	55	56	57
125-150K	122	131	153	172	189	125-150K	31	34	40	47	51
150K+	386	404	468	531	590	150K+	0	0	0	0	0
TOTAL	17923	19078	21754	24084	26388	TOTAL	11868	12677	13941	14938	15964

K=thousand

Source: Shimberg Center For Affordable Housing, 1996.

TABLE VII-ONE(R)
PROJECTION OF HOUSEHOLD SIZE, BY NUMBER OF PERSONS
2000-2010

Size	1990	1995	2000	2005	2010
1 person	9000	9855	11266	12406	13411
2 persons	11419	12111	13599	15149	16829
3 persons	4205	4412	4912	5310	5715
4 persons	3055	3184	3503	3649	3783
5 persons	1331	1375	1508	1575	1647
6 persons	527	545	593	615	639
7 persons	254	274	307	326	339
TOTAL	29791	31756	35688	39030	42363

Source: Shimberg Center for Affordable Housing, 1996.

TABLE VII-ONE(S)
PROJECTION OF AGE OF HOUSEHOLDS

HOUSEHOLDS					AGE	% OF TOTAL HOUSEHOLDS		
1990	1995	2000	2005	2010	Ranges*	1990	2000	2010
1757	1771	1919	2098	2298	15-24	5.9%	5.4%	5.4%
5164	4675	4457	4544	4924	25-34	17.4%	12.5%	11.6%
4892	5254	5702	5399	4987	35-44	16.5%	16.0%	11.8%
3716	4832	6300	7134	7635	45-54	12.5%	17.7%	18.0%
3947	3734	4267	5809	7447	55-64	13.3%	12.0%	17.6%
5348	5664	5675	5610	6223	65-74	18.0%	15.9%	14.7%
4832	5814	7361	8427	8834	75+	16.3%	20.6%	20.9%
29656	31744	35681	39021	42348	TOTAL	100.0%	100.0%	100.0%

Source: Shimberg Center, Gainesville; 1996.

*=Bolded age ranges experience an increase over time.

Note: these are numbers of **households**, not persons. 1990 data is from US Census.

TABLE VII-ONE(T)
RESULTS BY CENSUS TRACT FROM SURVEY ON CODES VIOLATION DATA, 1991-1996

Census Tract	Needs Demolition	Needs Major Repair	Standard Now*	NON Structural Viol.	Needs Minor Repair	Demolished	Number Units in each Tract	% of Total in CT
101	0	2	14	0	0	1	17	1%
102	0	7	116	12	13	36	185	15%
103	0	1	42	3	1	5	62	5%
104	0	7	115	0	9	0	133	11%
105	0	0	21	0	3	0	26	2%
106.01	0	1	16	0	1	1	21	2%
106.02	0	0	18	1	0	0	19	2%
107	0	0	32	0	0	0	34	3%
108	0	8	123	3	6	3	134	11%
109	0	4	48	1	4	0	57	5%
110	0	7	96	5	10	0	126	10%
111	1	2	41	7	5	0	61	5%
112.01	0	5	43	22	37	8	108	9%
112.02	7	12	35	27	36	46	143	12%
113	0	0	22	0	4	5	34	3%
114	0	1	14	5	6	7	31	3%
117.03	0	0	5	0	0	0	5	0%
118.01 & 118.02	0	0	3	0	0	0	3	0%
119.02	0	0	4	0	0	0	4	0%
122	0	0	14	0	0	0	14	1%
TOTAL, All Tracts:	8	57	822	86	135	112	1217	100%
% of total units	1%	5%	68%	7%	11%	9%		100%
**Net Total							1105	
u:\...cddo\...\ear\exc-tbl\viosrv2.xls								
*units which are standard if add non-structural violations and minor repair needs categories: 1043								
**Net total number units in survey in 1996 is 1217 minus demolitions, or 1105								

Source: Community Development Department, 1996.

VIII. INTERGOVERNMENTAL COORDINATION

INTRODUCTION

The purpose of the Intergovernmental Coordination Element is to identify existing mechanisms such as inter-local agreements between the City and various other entities, to assess the effectiveness of these mechanisms, and to provide guidelines regarding future coordination. Those guidelines must include a process to resolve conflicts. The element must also address how the City is and will in the future collaborate with adjacent local governments, the School Board, and other agencies providing services in the Lakeland area such as the water management district. Another issue which must be addressed is compatibility between the City's comprehensive plan and the plans of adjacent local governments.

This element includes an inventory contained in Appendix VIII-One in the Technical Support Document, of all City departments and how each interfaces with other governing entities. The inventory includes information on the nature of these relationships and their effectiveness. A beginning point for the inventory is a list of the existing City departments which carry out these coordination activities. The City consists of the Office of the City Manager and its divisions plus the departments reporting to that office. The organization of these departments within the Lakeland city government structure is shown in Illustration VIII-1. The definition of coordination as a practical, working term is simply the coordination between two or more governmental entities on one or more issues.

BACKGROUND

Lakeland shares common borders with both Polk and Hillsborough Counties. There are 17 incorporated municipalities within Polk's 1,823 square miles. Out of a total population of 405,382 in 1990, 242,123 resided in the unincorporated area of the county. The estimated 1996 population of Polk and its unincorporated areas was 452,707 and 279,542. Approximately 45% of these residents lived in the urbanizing area around Lakeland; many others live outside the city of Winter Haven, Polk County's second largest municipality. Although Polk County has concerns about urban issues such as subdivision regulations, housing problems, and sewer service, the County has continued to focus upon historic issues of economic development, agriculture, and some attempt to address the environmental issues related to rapid growth including flood control. It has been a challenge for Polk County to keep up with the demand for adequate infrastructure to serve the rapid growth occurring in their jurisdiction. An example has been the lack of adequate funding to maintain current roadways and to fund roadway improvements such as adding lanes or widening roads. Attempts to diversify the County's economic base and reduce dependence upon agriculture and mining have increased the County's focus on services that help attract new business growth such as education, cultural activities, and library services.

Polk County shares a 45-mile western boundary with Hillsborough County. Part of the Lakeland city limits extends westward to this common county line. Hillsborough is a 1,053 square mile coastal county with a 1990 population of 834,054 (their 1996 estimate was 910,855) and only 3 incorporated municipalities. One of these municipalities is Plant City whose corporate limits now extend up to the shared County line and abut a portion of Lakeland's western boundary, as can be seen in Illustration VIII-2. Plant City had a 1990 population of 22,754, and an estimated 1996 population of 26,081. The area where the two cities meet has historically been a rural area with citrus and strawberry farms, unreclaimed mined land and low-density residential development. However, this area has been rapidly transitioning to industrial uses during the past 10 years. In 1991 at least three major developments of regional impact were approved by Plant City for primarily light industrial uses with some office and commercial uses allowed in each development:

- CMI Plant City DRI, located just south of U.S. Highway 92 and approximately one mile west of County Line Road.
- Walden Woods DRI, located south of Park Road, west of Jim Johnson Road, about 3 miles west of County Line Road.
- County Line Commerce Center DRI, located directly on County Line Road, i.e. on the west side and abutting up to the road.

Lakeland and Plant City may coordinate directly regarding current development proposals, but the Hillsborough City-County Planning Commission and staff, located in Tampa, are responsible for the comprehensive or long-range planning for Plant City. Thus, future coordination efforts must include representatives from both entities, Plant City and the Hillsborough City-County Planning Commission.

Southeast of Lakeland is Bartow, the County seat. The 1996 population of Bartow was estimated at 9,323. Bartow's corporate limits are south of the Lakeland Planning Area. Bartow has not historically had an aggressive approach to developing northward. The principal issues with Lakeland consist of service area agreements for potable water service and avoiding strip development along U.S. 98, the highway connecting these cities. Coordination on these issues will become more important as Bartow expands northward as indicated by the recent annexation for the proposed new Bartow Memorial Hospital.

Between Bartow and the Hillsborough County line is the town of Mulberry, with an estimated 1996 population of 3,314. Mulberry is a gateway to the large phosphate mining operations in southern Polk County, and is literally surrounded by mined lands. Despite its location at the intersection of two well-traveled State highways, Mulberry has suffered slow growth due to the negative impacts of heavy industry and phosphate mining operations.

The urbanized Auburndale-Winter Haven area is located east of Lakeland. While some of this area includes mined-out and state-owned lands not suitable for development, it also includes older settled areas such as the community known as K-Ville as well as areas of anticipated new growth such as that surrounding the Polk County Parkway

(e.g. the Polk County Commerce Center DRI). Although this area is buffered somewhat from the Lakeland urban area by the mined lands, there are intergovernmental issues involving municipal service areas, road projects, and future land uses of the intermediary lands.

Development of the original (1991) Intergovernmental Coordination Element began with a series of meetings between Polk County and its municipalities. These meetings produced a memorandum of agreement which delineated Municipal Planning Area boundaries. For some small municipalities the delineated boundary was the corporate limits. For larger cities, including Lakeland, the planning area included a joint planning area outside the corporate limit. The area for Lakeland is shown in Illustration VIII-3 and is referred to as the Lakeland Planning Area. This area is not a service area or a future annexation area, but an area where the City has legitimate planning concerns and desires some influence over the development of private and public improvements. All of the area receives some public services from the City. Major parts of the area receive two or more City services and may be considered for annexation over the next decade.

Polk County retains ultimate planning jurisdiction over the unincorporated lands within the Lakeland Planning Area, with Lakeland recommending on a case-by-case basis preferred land use designations to the County. Both Polk County and the City of Lakeland have future land use maps which include these unincorporated lands. A major goal of the joint planning effort has been to produce consistent future land use maps. Where land use designations may vary, once again, Polk County has ultimate jurisdiction. However, the Lakeland designation will be used to inform landowners of City expectations should they wish to annex into the City of Lakeland. One area in particular which will require close coordination with the County is the area south of and proximate to the Lakeland Linder Regional Airport. Also of mutual concern is planning and implementing transportation improvements which transcend jurisdictional borders. Efforts to coordinate with the County on transportation issues are made primarily through the countywide Transportation Planning Organization (TPO).

**Illustration VIII-1
Organization Chart
City of Lakeland, Florida**

Illustration VIII-2
Lakeland & Plant City Corporate Limits

**Illustration VIII-3
Lakeland Planning Area**

SUMMARY OF FINDINGS

INVENTORY

There are five adjacent municipal governments and two adjacent counties with which the City of Lakeland coordinates activities ranging from routine project reviews to State mandated permitting. A survey of individual City departments revealed that for most of the entities with which the City coordinated, the working relationships are in good condition. There are several mechanisms which appear to be weak or in need of improvement, especially as it applies to regulatory agencies. This is detailed in Appendix VIII-One in the Technical Support Document which lists the coordinating entities, the mechanisms used to facilitate coordination, the nature of the relationship with each City department, and an assessment of effectiveness.

While this element does not examine all routine, on-going interactions between the City and other entities, and excludes almost all City-Federal interactions, there are still many intergovernmental activities listed in the Appendix. In fact, there are about 220 coordinating actions listed in the Appendix. The coordinating mechanisms in the inventory are classified as "State Law" (i.e., required by statute or mandate), "formal" (established by interlocal agreement, contract, etc.), "routine" (on-going activity often put in place by a formal agreement), and "informal" (usually voluntary interaction). Most coordination occurs within a formal or State law framework. Informal coordinating mechanisms represent about 25 percent of all mechanisms.

Lakeland coordinates more with Polk County than any other local government. Coordination with Polk County represents about 12 percent of all coordination mechanisms. Examples of the various coordination activities between the City and Polk County include State mandated civil defense coordination, the formal contract to provide City fire protection outside the City limits, and informal communication between the City and County Public Works departments to share accident and traffic count data. Another major coordination effort involves establishing and maintaining levels of service on local roadways. This is discussed in more detail in the Transportation Element of this Plan.

CONFLICT RESOLUTION

There are a variety of coordinating arrangements established to deal with areas of overlapping jurisdictions. These include the Transportation (formerly Metropolitan) Planning Organization (TPO) to coordinate road projects within Polk County, and the Southwest Florida Water Management District permitting procedures to manage water supplies, maintain natural drainage systems and protect property from flooding caused by development. There are other areas of interaction which could benefit from an established coordination mechanism. These areas are discussed in the Issues and Opportunities section of this element.

Finally, the Goal, Objectives and Policies section of this element allows for the formation of an Ad-Hoc conflict resolution committee under the direction of the City Manager when

direct staff contact fails to resolve a conflict with another local government. Developed in conjunction with Polk County, the process outlines steps to be taken to resolve conflicts and changes in levels of involvement should an impasse occur. To date, this process has not been needed.

OTHER COMPREHENSIVE PLANS

This Intergovernmental Coordination Element (ICE) must address the relationship of Lakeland's comprehensive plan to the plans of other adjacent governments and the school district's facilities plan. Plans for adjacent local governments are being updated as well (per Evaluation & Appraisal Report findings) within similar timeframes and are not available for examination and comparison. Coordination with Polk County has included exchange of the draft ICE element and discussion of what process may be best to use in coordinating annexation notification and future land use of the annexed area. The County also receives a copy of all proposed/transmitted Plan amendments including the City's draft of the 2010 Plan elements, for their review and comment. Coordination between agencies occurs as time permits. An initial meeting on intergovernmental issues was held in October 1998 with staff. In January, 1999 a Land Use and Transportation Forum made up of planners from Polk County, the Central Florida Regional Planning Council and cities including Lakeland began meeting regularly to discuss intergovernmental issues. This forum will be used for future coordination on land use and transportation as hosted by the Polk County TPO. In addition, the original comprehensive plans of 1991 were coordinated fairly well. Since 1991 there have been continuing coordination activities regarding plan amendments (including amendments to our respective future land use maps), annexations and utility service planning areas.

CAMPUS MASTER PLANS

There is no state university in Lakeland at this time. The University of South Florida has a Lakeland campus in conjunction with the Polk Community College just south of Lakeland on Winterlake Road. If the City should ever annex this area, it will recognize and coordinate as necessary with any campus master plans prepared pursuant to Ch. 240.155 Florida Statutes. There are at least five post-secondary institutions within the Lakeland City limits, including Florida Southern College, Florida Metropolitan University, Florida Career Institute, the Academy at Lakeland Linder Regional Airport, and Southeastern College. Other non-state institutions within the Planning Area, outside the City limits, include Polk Community College and Travis Technical College.

COLLABORATIVE PLANNING

The School Board:

The City works with the Polk County School Board to achieve various objectives. These include finding locations for new schools, joint use of recreation facilities/parks, the sharing of data and, most recently, assistance in developing and implementing a master plan for the redevelopment of Lakeland Senior High School. This coordinated effort to upgrade an “inner city” school facility is part of Lakeland's overall neighborhood revitalization strategy.

The City of Lakeland has and will continue to participate on any siting committee established by the Polk County School Board for purposes of siting a new educational facility in the Lakeland area. In 1999, the City requested that the School Board include a Lakeland City Commissioner on all future siting committees, which was responded to by the Superintendent. Lakeland also communicated to the School Board, School Superintendent and School Facilities Director its intention to site future public facilities near schools, where appropriate and possible, that new schools should be located in or near residential areas. The City signed an interlocal agreement with Polk County and the Polk County School Board in 2001 regarding public school facility and land use planning per Ch. 163.31777 F.S. This agreement was the result of a pilot program sponsored by the Florida Dept. of Community Affairs. The agreement includes procedures for annual sharing of local government population and development data, school board facility plans, siting of new schools, an annual summit of elected officials, collocation and shared use of facilities. In 2005 the City began working with the School Board, the County, and the 14 cities in Polk County that are not exempt from the new school concurrency requirements per Ch. 163.3180(13) F.S. to update the agreement to draft and adopt a Public School Facilities Element that provides for a county-wide uniform school concurrency management system.

Polk County and Other Municipalities:

Annexation: Lakeland coordinates with Polk County regarding many issues. Several small county enclaves were annexed in 1999 per an inter-local agreement whereby the annexations were agreed to by the City and the County. As part of the regular, staff-level intergovernmental coordination between the City and County, the City provided the County with a map of its annexations and the future land use designations assigned to each area. The City has discussed with Polk County Planning staff the basic process for annexation coordination during the planning period. Lakeland will use a checklist approach to issue a form letter to Polk County when an annexation is proposed, prior to any public hearing. A letter and a location map would be sent to the County and any applicable city to tell them generally where the proposed annexation is located and to contact us if there are any concerns or questions. The letter will request the County to identify the future land use designation on the subject property in order to facilitate the processing of a City future land use designation for the same property. This notification will chiefly benefit the County by assisting them in keeping their Future Land Use Map updated in regard to corporate limits. However, it will also allow an opportunity for consideration of appropriate utility service area adjustments and/or land use density and

intensity changes for the unincorporated area near the new corporate limits. The City has also committed to notifying other jurisdictions such as adjacent cities where Lakeland proposes an annexation within about a mile of their corporate limits.

Utility Service Planning Areas: The City serves as the regional water supplier for Polk City. Polk City has indicated a desire to buy the water system and maintain Lakeland as an administrator for the system. Also, in 1993, the City and the County reached an agreement regarding delineation of utility service planning areas for potable water and wastewater. The agreement provides for an annual review. The map attached to the agreement (see Illustration VIII-4 Interlocal Utility Agreement) has a proposed minor change which has been agreed to by the respective utility staffs and which adjusts Lakeland's water service planning area near U.S. Hwy 98 north. Any changes to the map or agreement must be reviewed and approved by the two political bodies.

The City hopes to establish formal utility service planning area and common boundary (annexation) agreements with the adjacent municipalities of Auburndale, Polk City and Bartow. In 2005, Lakeland reached such an agreement with Auburndale regarding water and wastewater service areas and general agreement on common jurisdictional boundaries. The interlocal agreement includes an illustration of these boundaries, subject to future changes as mutually agreed upon between the two cities. Although these agreements are subject to revision from time to time, they should assist in maintaining good intergovernmental relations. Utility service was a key issue discussed at the October 1999 conference on Intergovernmental Coordination held in Bartow and lead by the Florida Department of Community Affairs. At that conference it was determined that, if feasible, the County may decide to serve those areas where the cities do not provide utility service. Also, private franchise systems may exist within any of the municipal service territories. Any conflicts regarding utility service areas should first be addressed informally by staff and/or the relevant city or county manager.

The Cities and County may also want to discuss the need for any formal written agreements regarding utility service provision for areas outside or in between the delineated service planning areas; if no written agreements are currently needed then they can reassess this during their relevant discussions of utility service areas. One forum for such discussion is the local, informal city manager (and county) meetings held approximately each month.

School Concurrency Management System: In March of 2008, the City, Polk County School Board (PCSB), County, and other 14 non-exempt cities in the Polk County School District will implement a uniform school concurrency management system as required per Chapter 163.3180(13) F.S. and in accordance with the Interlocal Agreement for Public School Facilities Planning. The concurrency management system will be implemented at the sub-district level and based on the School Board's financially feasible capital facilities plan to provide for a uniform level of service. The formalization of the exchange of data related to proposed residential development will be necessary for the School Board to make school concurrency capacity determinations prior to the City's consideration for approval of residential site plans and plats. The City will provide notice to and coordinate with the PCSB regarding land use or zoning actions which may increase residential densities as per the Interlocal Agreement on Educational Facilities.

Formal means of coordination will be needed to implement mitigation for school facilities. School concurrency mitigation agreements will require the School Board and the affected local government to concur to the terms of the agreements with the applicant/developer.

Other Coordination Polk County:

Lakeland holds agreements with the County that address provision of fire, law enforcement and recycling services. In the late 1990's, the County initiated an effort to develop a master plan for parks and recreation. This effort includes representation from all affected cities and begins with a complete inventory of all existing parks including those within the cities. Defining the role of the County and municipal recreation service providers is one objective of the master plan due to be drafted sometime in early 1999. Furthermore, the City works with the Polk County Transportation Planning Organization regarding coordination of transportation issues including roadways, level of service issues, non-motorized trails/routes, aviation, bus service and mass transit/rail service. The City participates in the TPO's Land Use and Transportation Forum, intended to address coordination of level of service and land use issues in regard to the update to the Long Range Transportation Plan for 2025. This forum provides an opportunity for municipalities to improve consistency of land use and transportation planning with each other and with the County. In regard to aviation, the City participates in the Polk County Joint Airport Zoning Board (JAZB) and the Joint Airport Zoning Board of Adjustment (JAZBA) to review aviation issues in the County, including municipal airports. Hillsborough County is also a member of the Polk County JAZB due to overlapping airspace in eastern Hillsborough and western Polk counties.

Other collaborative planning efforts between the City and County involve provision of affordable housing, and library services. The City of Lakeland participates in the Countywide library system, formed in the late 1990's, in which County residents now have access to City library facilities at no charge. In regard to housing, Lakeland and the County are participants in the area Coalition for the Homeless which addresses services and housing for the homeless and those in transition to regular, non-emergency shelter housing. The City also agreed to assist the County in expending some of the County's State Housing Initiatives Partnership (SHIP), specifically to accomplish housing rehabilitation in the Paul A. Diggs neighborhood of northwest Lakeland.

In addition, the City and County, as part of their overall effort to enhance coordination of their mutual land use planning efforts, may consider an updated interlocal agreement on such coordination. This interlocal agreement would be intended to address a geographic area of potential City annexation and a menu of potential City future land use designations which relate to existing Polk County future land use designations. The interlocal agreement would support a long term agreement with the State DCA regarding City Comprehensive Plan Certification. The agreement would also support coordinated local initiatives like special focus area planning, including corridor planning and coordinated development review processes.

OTHER REGULATORY AGENCIES

The City coordinates with regulatory regional and state agencies such as the water management district and Department of Environmental Protection, as needed. Much of the formal coordination efforts are listed in the Appendix (Inventory) for this element, found in the Technical Support Document. Informal coordination includes exchange of data, newsletters and review of draft plans or plan amendments. For example, City staff attend meetings set up by the Southwest Florida Water Management District (SWFWMD) regarding their most recent plans and studies including the water supply assessments and the Southern Water Use Caution Area (SWUCA). In fact, Lakeland's Water Utility Director is a member of the "working group" for the SWUCA. Issues regarding the City's updated water level of service standards and water conservation efforts will be coordinated with the SWFWMD to ensure consistency with district policy and guidelines.

ISSUES AND OPPORTUNITIES

POLK COUNTY SCHOOL BOARD

Though the primary mission of any school district is education, the delivery of this service is tied to the planning profession through the need for and sharing of the analysis of population projections, school site selections, transportation and other infrastructure needs. Coordinating the planning for schools with City planning activity is important to ensure that the school functions well within the given neighborhoods. For example, the cooperative arrangement for the joint use of the City's Dobbins Park by Dixieland Elementary enhances the neighborhood's use of the park while benefiting the school. Often school facilities are ideally located for the delivery of neighborhood recreation services. This is the case with Southwest Elementary and Middle Schools which have recreation facilities within an established residential neighborhood. An arrangement between the City and School Board making the outdoor facilities available for public use after school hours relieves the need to duplicate public recreation services in the neighborhood. In return, the recreation areas have received City funds to put in place new, additional recreation equipment.

The Polk County School Board interacts with the City regularly. One of the best examples of such coordination was an agreement in which the two entities agreed to fund an architectural master plan for revitalizing a local high school campus (Lakeland Senior High). In addition, Lakeland agreed to a joint use with the School Board of the newly planned Lake Bonny Park. The City also participates in the School Board's process for siting of new schools but have at times disagreed over the impacts or the importance of the impacts from the sites selected by the Board. The historical lack of a clear state requirement for school districts to abide by local concurrency requirements (for evaluating the impacts of the new schools on roadways, parks, water, wastewater and other public services) has meant schools could be constructed without meeting any local concurrency standard. However, Chapter 235 and 163.31777, Florida Statutes, do require new or expanded schools to be consistent with a local government's future land use element.

Lakeland entered into an interlocal agreement in mid-2001 with the Polk County School Board and Polk County Board of County Commissioners regarding educational facility and land use planning. This agreement was signed by all cities in Polk County. The interlocal agreement addresses a host of issues including: annual steering committee meetings of the school district and local government staff to share population and residential development data; joint use of facilities such as parks or playgrounds; school site selection including a technical review process; inclusion of a School Board representative on the local government's planning board as an ex-officio member; local government review of the five year School District Facilities Work Program; and an annual summit of the elected officials of the School Board and local governments in Polk County to discuss the effectiveness of implementation of the interlocal agreement.

The Polk County School Board's 5-year facilities plan indicates what needs there are in various geographic areas for building new elementary, middle or high schools in and around the Lakeland area, to relieve overcrowding and/or imbalanced socio-economic and/or racial populations within local schools. Public schools are allowed in any future land use category of the Lakeland Comprehensive Plan (with exceptions for conservation/preservation areas and future right-of-way, per an amendment to the Future Land Use Element, adopted in 1996.)

The City will continue to work with the Polk County School Board to identify appropriate sites for new schools in the City of Lakeland and/or in the City's water and wastewater service areas. If and when the Polk County Board of County Commissioners approve a school impact fee on new residential development and/or when voters approve a sales tax for school construction and rehabilitation, new school planning and construction is likely to soar. Without more capital revenues school officials may consider double sessions and other techniques to handle student enrollment increases in facilities that are at or above capacity.

The possible rezoning of existing schools due to the introduction of new school facilities often presents a dilemma for parents and students. The City may be able to assist through communication and staff interaction with the School Board prior to their final hearing on a rezoning proposal. Changes to school zones are considered highly connected to preservation of neighborhood stability and housing values. The City recognizes that residents of neighborhoods prefer neighborhood elementary schools that are located within walking distance of students' homes and that housing choices and investments are often made in part due to the particular school zone within which the residence is located. Schools also represent community assets in the form of a local meeting place for residents. Parent organizations that are vital to volunteer labor at schools are sometimes disrupted or temporarily disabled due to school rezoning actions. It is therefore crucial that the impact of rezoning of schools be equitable and minimize disruptions to neighborhoods located far beyond the location of the new school facility.

Lakeland is participating in the drafting of a school facilities element for Polk County's Comprehensive Plan. This element would require some modification for municipal adoption but overall would be a model each city could use should they choose to include it in their comprehensive plans. The draft element includes a locally set level of service standard for school capacity and indicates the need to link the local level of service standard to local government development review processes.

OTHER LOCAL COMPREHENSIVE PLANS

State guidelines for the Intergovernmental Coordination Element require an analysis of "growth and development proposed in comprehensive plans in the area of concern" (adjacent local governments).

The local governments adjacent to the City of Lakeland are shown on Illustration VIII-3. There are several issues in the plan elements which could benefit from improved intergovernmental coordination. In particular, the water and wastewater service areas of the adjacent cities of Auburndale and Bartow could be the subject of a formal inter-local agreement similar to what has been achieved with Polk County. This would assist each local government in clarifying the service areas and providing for an annual opportunity for review and update of the agreement.

The City and Polk County have an on-going cooperative effort in regard to coordinated review of new proposed development adjacent to the City corporate limits or near/in the County. This is an informal, staff-level effort to notify the other jurisdiction of pending amendments to their respective Future Land Use Maps, including, on the City's part, potential annexations. This does not mean the City agrees with all amendments proposed by Polk County near our corporate limits or in the Lakeland Planning Area, but it means there is an established communication process regarding such issues. The City has requested that the County forward information regarding pending plan amendments to Lakeland early enough in the process to allow our input prior to the County staff report being completed. On the part of the City, there is a need to provide assurance that, prior to a formal public hearing and/or early in the process, the County is notified of Lakeland's intent to annex any unincorporated area and the general location of the area proposed for annexation. Of course, large annexations brought about by referenda and annexation of enclaves pursuant to an interlocal agreement with Polk County have built-in, mandatory notification requirements. Single property annexations due to wastewater annexation agreements should require a letter of notification to the County and request for County land use information, as discussed above in the Summary of Findings. Note that Illustration VIII-5, *Year 2010 Potential Corporate Limits*, depicts an area where the City *may* eventually grow/annex. However, these areas are tentative/subject to change. New formal or informal agreements between the City and Polk County are expected in 2003 regarding provision of services to annexation areas including other services like fire and police, and as per 2002 State legislation.

The State's Comprehensive Plan Certification Program presented the City and County with a new opportunity to renew and update a formal interlocal agreement on land use planning coordination between the City and County. This program allows the State to certify that Lakeland's Comprehensive Plan meets certain standards as defined in Chapter 163.3246, Florida Statutes, that translate into no further State review of many types of amendments to the City's Comprehensive Plan. The City's certified area is depicted in Illustration VIII-7, Lakeland Comprehensive Plan Certification Area. By Statute, the City and the State Department of Community Affairs (DCA) outline in a written agreement all provisions for the City's certification including monitoring measures, a work program to improve on some issues related to certification, and normal stipulations such as what

might cause revocation of the certification. While the Statute allows certification to extend as long as 10 years, it also requires re-evaluation of certification eligibility at the time of the community's Evaluation and Appraisal Report, which is due for Lakeland in 2009. The Statute does not allow any part of a State-designated Area of Critical State Concern, ACSC, to be included in a certified area. There are other types of amendments also excluded from the certification program such as new DRIs and legislatively mandatory text amendments such as EAR-based amendments. Annexed lands are not covered by certification unless the certified city has a DCA-approved Joint Planning Area agreement with the host County that indicates conceptual land uses for the annexed land. The JPA agreement must be followed by an amendment to the Comprehensive Plan to adopt that JPA boundary as the new applicable Certified Area as part of the procedure to amend the Certification Agreement and its associated boundaries.

However, most proposed future land use map amendments within the certified area should qualify as exempt from State review due to Lakeland's certification. The same may be said for most proposed text amendments. This offers several advantages to the City including shortened time for amendments to go into effect once adopted by the Commission, a shortened time for formal review of proposed amendments and more certainty to private sector interests once local approvals are secured. In exchange, the City will be required, by Statute, to hold an annual public hearing on the monitoring report for Certification and complete some analyses to ensure compliance with other statutory provisions of the certification program, to make some progress on factors subject to the monitoring program and to increase public participation or access to the amendment process. However, lack of progress on a given monitoring factor such as urban compactness or affordable housing, would not, by itself, be enough to nullify certification.

Historically the County has tended to be liberal in its development approvals, although somewhat limited by lack of infrastructure and services. The City has been more restrictive and cautious in extending wastewater service beyond the corporate limits. The result has been more rapid growth on the periphery of the City limits which often lacks complete urban services. When these areas are annexed into the City, there are often problems with drainage, wastewater service or other areas which the City inherits. The delay in the County's adoption of implementing land development regulations translated in continued lack of landscaping and various other standards for new development in the Lakeland Planning Area. Another issue concerns the County's implementation or interpretation of its comprehensive plan in terms of where and to what extent development is allowed. For instance, in the period since the adoption of the County's comprehensive plan, the County has tended to approve requests for new or expanded strip-type development along major roadways in Linear Commercial Corridors, including where such approvals expand the depth or length of the existing commercial corridor. Lakeland on the other hand has exercised a more conservative approach in interpreting policies regarding infill of existing linear or "strip" commercial corridor development.

The City will continue to pursue coordination regarding common land use planning with Polk County to ensure land use compatibility in the Lakeland Urban Area. For instance,

coordination will be required for land use proposals near the Lakeland Linder Regional Airport and along major roadways such as U.S. Hwy 98 and S.R. 37/Florida Avenue. As the County implements its unified development code, the differences between the City and County in terms of development standards for new developments have been reduced although not eliminated. This may result in fewer concerns regarding future annexations of unincorporated areas which were developed under different standards. The City and County coordinated their adopted comprehensive plans regarding where provision of water and wastewater service is likely to occur, and in turn, where appropriate land use intensities should be assigned by the County. A logical extension of this coordination should include agreement on roadway network level of service standards and some form of joint concurrency management for roadways. In the 2001-02 period, the City and County adopted the same multi-modal level of service standard for the transportation system. It will be important to continue coordination on this issue as that multi-modal LOS standard becomes more refined, for example, through the TPO long range plan update process.

FACILITIES WITH COUNTYWIDE SIGNIFICANCE

Excluding transportation, there is not a formal process in place for consideration of the siting of facilities with countywide significance, including locally unwanted land uses, other than the public hearing process. However, there does not appear to be a major issue pending in the next 10-year planning period (such as the need for a new landfill.)

Developments of Regional Impact, DRIs, continue to be reviewed through the traditional process of regional planning council and Board of County Commission workshops and hearings, with some opportunity for City input. Most recently, the City has had some concerns regarding the proposed "Old Florida Plantation" DRI located on the southeast side of Lake Hancock. The City's concerns are chiefly regarding impacts from and funding for project-related transportation needs.

HILLSBOROUGH COUNTY

The east-west runway at Lakeland Regional Airport is less than 2 miles from the Hillsborough/Polk County line. The airport tower control zone encompasses a 5-mile radius with the airspace approach to the east-west runway (Runway 9) beginning over eastern Plant City and Hillsborough County. The Plant City zoning ordinance includes the M-AP Airport-Industrial District which permits a variety of industrial, agricultural and commercial operations while restricting lighting, radio and electronic use, smoke emissions and setting height and other limitations which could interfere with airport operations. However, this M-AP zone is used in the area of Plant City's airport, located on the west side of the City. The Plant City future land use map indicates a large area of industrial uses in east Plant City due to several DRIs approved in that area.

In addition, in the last year or so Hillsborough County decided to approve a very tall tower (between 1,500 to 2,000 feet high) that had been denied a permit by the Polk County Joint Airport Zoning Board of Adjustment (anything over 500 ft. requires a variance from JAZBA) to locate the tower in southwest Polk County. The tower has been constructed in eastern Hillsborough County. Thus, future coordination regarding land use approvals between Lakeland, Plant City and/or the Hillsborough City-County Planning Commission will be important to maintaining an obstruction-free and flight-hazard free zone in the airspace for our respective airports.

Lakeland has participated and continues to participate in what is known as the Major Investment Study (MIS) initiated by Hillsborough County to analyze long-range transportation alternatives in the Tampa Bay area. The analysis included several modes of transportation such as light or commuter rail, trolley service, local bus service, bicycle and pedestrian routes, roadways and inter-modal connections such as park-and-ride lots. The study area for the MIS encompassed the City of Oldsmar on the west, Tampa, Plant City and Hillsborough County over to the City of Lakeland on the east. Work has begun on the second phase of the MIS; this phase focuses on implementation strategies and funding mechanisms. It is in Lakeland's interest to continue participation in this endeavor and to keep apprised of transportation and related air quality issues in Hillsborough County as may impact the Lakeland area.

LAKELAND HOUSING AUTHORITY

The Lakeland Housing Authority plays a crucial role in providing housing for low income City residents. The Authority owns 748 housing units in various locations of the City and administers a Section 8 rent supplement program that assists a similar number of households. There is a large waiting list for the available units and numerous problems exist in maintaining this housing stock.

It is in the City's interest to work with the Housing Authority to upgrade units and find ways to best serve the clients the Authority serves. Intergovernmental coordination has continued regarding the issues of affordable housing, homelessness, and the impact that public housing has on surrounding neighborhoods. The Authority recently applied

for a grant to upgrade the public housing units and the surrounding neighborhood as part of a new redevelopment strategy. The federal grant (HOPE VI) was awarded to the Housing Authority in 1999 for over \$21 million. The City will continue to coordinate traditional activities that may assist the Housing Authority, including code enforcement and public housing rehabilitation. A greater level of coordination is necessary to address other problems and accomplish mutual benefits for the City, the Authority and the clients of the Authority.

AREA OF CRITICAL STATE CONCERN (ACSC)

There is a small portion of Lakeland which is within the Green Swamp Area of Critical State Concern (ACSC). This is due to lands which were annexed for the Bridgewater (formerly Cynamid) DRI. The area within the Green Swamp ACSC is roughly 101 acres and is located in the northeast corner of the City limits (see Illustration VI-6); all of it is designated as "Conservation" on Lakeland's future land use map. The guiding principles of development for the Green Swamp ACSC were adopted as Policy 2K of the Future Land Use Element in conjunction with the amendment to the FLUM to include the Bridgewater DRI.

Within the overall (revised) Lakeland Planning Area, the Green Swamp ACSC comprises about 6,985 acres, but beyond the 101 acres inside the City limits, the remainder, or 6,884 acres, is under the jurisdiction of Polk County.

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to intergovernmental coordination issues. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the measurable and attainable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Intergovernmental Coordination Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this comprehensive plan and with the goals and policies of the Central Florida Strategic Regional Policy Plan.

GOAL: To improve governmental efficiency and effectiveness, and resolve conflicts and incompatibilities through cooperation, communication, and flexible relationships between Lakeland and all other government organizations which address issues that affect Lakeland.

Objective 1: Share information and seek intergovernmental agreements with appropriate governmental entities, including independent special districts, in order to improve intergovernmental coordination and collaborative planning. Provide updates to the text and future land use map of Lakeland's Comprehensive Plan to adjacent local governments at least annually.

Policy 1A: Lakeland will continue to maintain a database of interlocal agreements which provides a listing of active formal agreements. This database shall be updated no less than every five to seven years for the evaluation and appraisal report on the Comprehensive Plan.

Policy 1B: Lakeland will cooperate with Polk County in drafting a local hazard mitigation strategy and will review all final recommendations for incorporation into the City's plans.

Policy 1C: Lakeland will, where practical, formalize all intergovernmental agreements within one year of the adoption of this element, or by 2001.

Policy 1D: Lakeland will continue to participate in the regular exchange of information with other governmental entities. The type of information to be considered includes, but is not limited to: building permits, zoning cases, engineering plans, demographics, proposed annexation areas, socio-economic information, and utility service areas and capacity, and planned land use map amendments.

Policy 1E: Lakeland elected officials and administrative personnel will participate in Polk County intergovernmental coordination/cooperation workshops and/or joint workshops with the Polk County School Board.

Policy 1F: City staff shall continue to participate in the Planners Working Group as established in the Interlocal Agreement for Public School Facilities Planning to set direction, plan for the annual school summit, formulate recommendations and discuss issues related to the Public School Facilities Element and the Interlocal Agreement as well as ancillary infrastructure improvements needed to support schools and ensure safe access to school facilities.

Policy 1G: The City will exchange land use and zoning information with the Hillsborough County City-County Planning Commission (HCCCPC) and Plant City for the purpose of coordinating land use and infrastructure at the County line and also for the protection of airspace within the Lakeland Airport control zone.

Policy 1H: The City will coordinate relevant lake improvements, stormwater improvements, and park acquisitions with the plans of appropriate state and regional agencies, including water management district surface water improvement plans, Fish and Wildlife Conservation Commission habitat protection plans, and the plans of the State Greenways and Trails Commission.

Objective 2: Establish, maintain, and improve intergovernmental coordination for collaborative planning efforts including joint or extra-territorial services, changes to service or corporate limits, any joint committees for review of locally unwanted land uses, and regulatory concerns. Establish at least two formal agreements regarding the various issues listed in Policy 2A, by 2005.

Policy 2A: Lakeland will actively work towards developing and implementing formal and informal agreements with affected parties on the following issues:

1. Utility planning service areas, for all City-maintained potable water and wastewater systems;
2. Collection and reduction of hazardous and solid waste;
3. Development within, and maintenance of, stormwater drainage systems and any joint drainage studies or projects;
4. Water quality and quantity studies;
5. Conservation uses as defined by Chapter 9J-5.003 FAC;
6. Recreational and open space efforts including:
 - a. location of new facilities;
 - b. joint use of facilities;
 - c. coordinating the provision of services; and
 - d. establishing greenbelts.
7. Coordination for the provision and maintenance of transportation systems including: aviation, mass transit, traffic circulation, and bicycle, sidewalk and trail networks;

8. Coordination for the provision or rehabilitation of group homes; adequate, affordable, low and moderate income housing; and shelter provisions for the homeless;
9. Prevention of the loss of endangered or threatened species populations;
10. Coordination for the provision of the following services:
 - a. fire protection;
 - b. law enforcement;
 - c. emergency medical;
 - d. animal control;
 - e. civil defense, including hurricane evacuation; and
 - f. libraries.
11. Coordination to locate new or expanded dredge disposal sites, if needed.

Policy 2B: The City of Lakeland will annex areas in a compact manner to avoid the formation of enclaves and work with Polk County to continue to reduce the number of existing enclaves.

Policy 2C: The City of Lakeland will inform Polk County in a timely manner of proposed annexations. The City will notify jurisdictions other than Polk County of proposed annexations when the affected area is within approximately one mile of the other jurisdiction's limits.

Policy 2D: The City of Lakeland will notify the appropriate enforcement agencies of any regulatory violations of which it becomes aware, and shall cooperate with those agencies in enforcing regulations.

Policy 2E: By 2002, the City will review interlocal agreements with Polk County for water and wastewater in terms of extending that agreement for another 10-year period.

Policy 2F: By 2001, Lakeland will coordinate with the cities of Auburndale and Bartow to ensure that each has a copy of a map which delineates the utility service planning area for their community for the planning period. Annually thereafter, each municipality will discuss the potential need for reassessing utility service area lines, if relevant, and share any official service area map updates. Each municipality will also provide any official utility service planning area map updates to Polk County in order to ensure coordination for County utility and land planning.

Policy 2G: The City will continue to coordinate with Polk County regarding the use of the North Central landfill relative to recycling and reduction of total wastes by weight.

Objective 3: The City shall maintain mechanisms to ensure regular and timely coordination of planning and development issues with other governmental entities as pertains to the City's planning program.

Policy 3A: The Planning Division of the Lakeland Community Development Department will maintain procedures for the review of comprehensive plans and comprehensive plan amendments which will include:

1. Identifying intergovernmental issues and conflicts;
2. Identifying the impacts of capital projects listed in the Capital Improvements Element of the Lakeland Comprehensive Plan upon the provision of basic services; and
3. Determining the relationship of development proposed within the Lakeland Comprehensive Plan to the development proposed in the comprehensive plans and/or comprehensive plan amendments of the following entities:
 - a. Polk and Hillsborough counties; and
 - b. adjacent municipalities.

This shall include distributing a copy of relevant proposed plan amendments to adjacent local governments.

Policy 3B: The City of Lakeland will, at least annually, implement the procedures established in Policy 3A. If any issues or negative impacts are identified, Lakeland will implement Policy 6A.

Policy 3C: The City of Lakeland will review, in a timely manner, copies of applications to Polk County for zoning changes, major development orders, or proposed County future land use map amendments, that fall within the Lakeland Planning Area with regard to consistency with the City's comprehensive plan.

Policy 3D: The City of Lakeland will continue to participate in meetings for the Polk County Planners' Forum and/or the Heart-of-Florida chapter of the American Planning Association or other such groups to coordinate planning efforts. Lakeland will attend at least 50 percent of these meetings in a given calendar year.

Objective 4: Cooperate in an effort to obtain consistency between the Lakeland Comprehensive Plan and the plans of the Polk County School Board, other units of municipal, County, regional, and State governments providing services but not having regulatory authority over the use of land.

Policy 4A: The City of Lakeland will continue to actively participate in implementing the inter-local agreement with the Polk County School Board as regards the coordination of locating new schools and expanding or redeveloping existing school facilities. The School Board is encouraged to locate new educational facilities near urban residential areas where public infrastructure and services exist to support the new facilities, and where such can support infill development.

Policy 4B: The City of Lakeland will continue to participate on any siting committee established by the Polk County School Board in order to locate a site for a new public school in the City or in the Lakeland Planning Area.

Policy 4C: The City shall continue to exchange data with the School Board regarding population projections, development trends, the 5-year Schedule of Capital

Improvements Projects and school board (5-year) facility plans as such data or plans are updated but not less than annually.

Policy 4D: The City will continue to coordinate with the School Board regarding shared use of recreational facilities owned by either entity. In addition, the City shall pursue collocation of parks, libraries and other public facilities with public educational facilities, as appropriate and feasible.

Policy 4E: The City will identify and recognize campus master plans of all State university post-secondary institutions located within its jurisdiction, as becomes necessary. Review of a campus master plan or its update shall be made to ensure coordination and consistency with the City's Comprehensive Plan. A consistency review of the campus master plans for non-state post-secondary institutions shall also be considered where a "campus" exists or is planned.

Policy 4F: The City will continue to work with Polk County School Board to identify appropriate sites for new schools in the City of Lakeland and/or in the City's water and wastewater service areas. This coordination will include participation in the site selection committee and evaluating potential sites for new public schools per the Interlocal Agreement on School Facility and Land Use Planning. The City also commits to continued participation in annual summits, planning for joint use of facilities and data sharing as called for in the adopted Interlocal Agreement.

Policy 4G: As per Ch. 235, Florida Statutes, the planning for new or expanded educational facilities must consider the effects of the location of public education facilities, including the feasibility of keeping central city facilities viable, in order to encourage central city redevelopment and the efficient use of infrastructure while discouraging uncontrolled urban sprawl.

Policy 4H: As per Ch. 235, Florida Statutes, if the proposed site for a new or expanded educational facility is consistent with the future land use policies and categories of the Lakeland Comprehensive Plan, the City may not deny an application for such a facility but may impose reasonable development standards and conditions which consider the site plan and its adequacy as relates to environmental concerns, health, safety and welfare, and effects on adjacent property.

Policy 4I: To the maximum extent feasible, the City will work with the Polk County School Board to ensure minimal impact of potential rezoning of school enrollment zones to existing neighborhoods and the housing investments made by residents of those neighborhoods.

Policy 4J: The City shall notify the school board of all proposed residential development projects, which are subject to school concurrency per the Interlocal Agreement for Public School Facility Planning.

Policy 4K: The City of Lakeland will continue to participate on the Technical Advisory Committee, Land Use and Transportation Forum, and Mass Transit Steering

Committee for the Polk County Transportation Planning Organization (TPO), as well as on the TPO Board, to ensure coordination regarding transportation issues.

Policy 4L: The City of Lakeland will continue to participate in the proceedings of the Polk County Joint Airport Zoning Board, as needed.

Policy 4M: The City will coordinate with SWFWMD to ensure review of the any applicable updates published for the District's Regional Water Supply Plan regarding the projection of future water demand and supply for both potable water and alternative sources.

Policy 4N: The City will exchange water supply information with the SWFWMD, Central Florida Regional Planning Council, and local governments through water supply planning work groups and meetings on an as-needed basis.

Policy 4O: The City will participate in the implementation of the SWFWMD's Regional Water Supply Plan updates, to enable the City to design and implement an effective local water supply plan.

Objective 5: Coordinate, as appropriate, any change in established level-of-service standards for public facilities, including, at minimum, for all 10-year updates to the Lakeland Comprehensive Plan, five-year updates to the Polk County Long-Range Transportation Plan, and annual updates to the Polk County School Board 5-year Program of Work.

Policy 5A: The City of Lakeland will coordinate establishing and changing roadway level of service standards with the Florida Department of Transportation and will establish a mechanism(s) to inform appropriate governmental entities within the Lakeland Planning Area of proposed changes in any level-of-service standards.

Policy 5B: The City of Lakeland will, when notified by other governmental entities of changes in their level-of-service standards, review and comment on these changes.

Objective 6: Establish mechanisms to resolve, in a timely manner, any conflicts which arise between the City of Lakeland and other governmental entities.

Policy 6A: Staff at all levels, in all departments/divisions, will initially work with staff of other governmental entities in an informal manner to resolve any conflicts. If conflicts cannot be resolved in this manner the department/division head will inform the City Manager. For those governmental entities that have existing agreements with Lakeland that address the resolution of conflicts, the City will use the procedures set forth in that agreement. For those governmental entities that do not have an existing agreement with Lakeland addressing the resolution of conflicts, the City Manager will address the conflict through the procedures established in Policy 6B through Policy 6D.

Policy 6B: The City Manager or designee will, upon receipt of a written request from either an aggrieved governmental entity or a department head, assign an appropriate number of staff members to an Ad-Hoc Conflict Resolution Committee. The City Manager will request that the affected entity(ies) also appoint members to this committee. If any involved entity fails to appoint a representative to this committee, the City Manager will request that the Central Florida Regional Planning Council's informal mediation process be used.

Policy 6C: The Conflict Resolution Committee will send, in a timely manner, a recommendation for addressing the conflict to the City Manager and the chief administrator in charge of the affected entity(ies).

Policy 6D: The City of Lakeland will request any governing body rejecting the Conflict Resolution Committee's recommendation to state, in writing, the reason(s) for that rejection and to state an alternative solution(s). The Conflict Resolution Committee will then reconvene to reconsider its original recommendation with regard to this new information, and may modify that recommendation. If no resolution of the conflict can be reached through the Conflict Resolution Committee, the parties involved will take the issue to the respective elected officials. If the elected officials cannot reach an agreement they will request that the Central Florida Regional Planning Council's informal mediation process be used.

**Illustration VIII-4
City of Lakeland/Polk County
Interlocal Utility Agreements**

Illustration VIII-5
Year 2010 Potential Corporate Limits

T-01-004
Ordinance #4292
Effective 12/27/2001

Illustration VIII-6
Green Swamp Area of Critical State Concern

Illustration VIII-7
Lakeland Comprehensive Plan Certification Area

APPENDIX VIII-ONE

INVENTORY OF INTERGOVERNMENTAL COORDINATION

The information found in this Appendix has been moved to the
Lakeland 2000 – 2010 Technical Support Document (TSD)

- SERVICE AREA:**
- ☐ **Sanitary Sewer**
 - ☐ **LPD**
 - ☐ **Fire/EMS**
 - ☐ **Solid Waste**
 - ☐ **Drainage**
 - ☐ **Potable Water**
 - ☐ **Transportation Facilities**

PERSON(S) PROVIDING INFORMATION:

Review the following list of agreements to locate those within your service area. Check the appropriate box(es), then complete Forms 1, 2, 3, & 4 as needed.

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
1	Auburndale Bartow Mulberry Winter Haven	Airport exchanges information with Bartow and Winter Haven airports.	Informal	Good				
2	Auburndale Bartow Mulberry Winter Haven	City Manager monthly meeting with cities to establish personal benchmarks.	Informal	Good				
3	Auburndale Bartow Plant City Winter Haven	Parks & Recreation communicates monthly with Plant City, Auburndale, Bartow and Winter Haven on programs, cost comparisons, and facility comparisons.	Informal	Good				
4	Auburndale Bartow Mulberry Winter Haven	Police Department maintains field communication, information exchange, and meetings on criminal activity with all adjacent local governments.	Informal	Good, Effective				
5	Auburndale Bartow Mulberry Winter Haven	Fire Department has mutual aid agreement with all adjacent governments.	Formal	Good				
6	Auburndale Bartow Mulberry Winter Haven	Mutual Aid Association meets monthly on communication and emergency needs.	Formal	City cannot always ad-here to what is voted upon by membership.				

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7	Auburndale Bartow Mulberry Winter Haven	Paid Fire Chiefs Association from local area meets regularly for up-grading service and education.	Informal	Good				
8	Auburndale Bartow Mulberry Winter Haven	Community Development exchanges with all adjacent cities.	Informal	Fair, Most information from news media				
9	Auburndale Bartow Mulberry Winter Haven	E&W Business Development provides information to adjacent cities' chambers of commerce as well as the Lakeland & Polk County chambers.	Informal	Good				
10	Polk City	E&W owns public water system.	Formal	Good				
11	Polk City	E&W is billing agent for utility billing.	Formal	Good				
12	Hillsborough Co.	Police Department works with Hillsborough County Law Enforcement Agencies as necessary.	Informal	Good				
13	Hillsborough Co.	Fire Department works with a volunteer fire department in Hillsborough County.	Informal	Good				
14	Polk County	City Manager meets monthly to review City/County issues.	Informal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
15	Polk County	E&W provides radio alerting devices for County Civil Defense and works with all aspects of public safety.	State Law	Good				
16	Polk County	Fire Department receives \$300,000 to protect specified areas outside City limits.	Formal	Good				
17	Polk County	E&W has various water arrangements with County.	Formal	Good				
18	Polk County	E&W member of Polk Utility Group for coordinating R/W work.	Informal	Good				
19	Polk County	Central Services co-licenses Sheriff's office for joint frequency use and contracts to allow sheriff use of City transmission tower.	Formal	Good				
20	Polk County	Central Services shares information with the property appraiser.	Formal	Good				
21	Polk County	Police Department has a mutual aid agreement with the Sheriff's office to provide assistance in time of need.	Formal	Good				
22	Polk County	Police Department shares specialized equipment.	Informal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
23	Polk County	Police Department gathers crime information for areas annexed into the City.	Informal	County database information is incomplete.				
24	Polk County	Finance Department receives tax money collected by County.	State Law	Good				
25	Polk County	Finance receives gas taxes from County.	Formal	Good				
26	Polk County	Communication between Finance and County tax collector and property appraiser on audit reports, millage rates in special districts, budget projections, assessed values, budget ordinances and ad valorem information.	Informal	Good				
27	Polk County	Public Works receives utility, driveway and use permits for work within the County right-of-way.	Formal	Good				
28	Polk County	Finance receives Tourist Development taxes.	Formal	Good				
29	Polk County	Public Works-Solid Waste has Interlocal Agreement to manage recycling.	Formal	Good				
30	Polk County	Public Works-Traffic shares accident reports, traffic counts, and other data at no charge.	Informal	Good				

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31	Polk County	Central Svcs/M.I.S. Lakeland Area Real Property downloaded from property appraiser.	Routine	Good				
32	Polk County	City annexations involve transfer of road maintenance and annual verification of maintenance by Public Works.	Formal	Good				
33	Polk County	Public Works coordinates with the County on wastewater service permits and service areas.	Informal	Fair				
34	Polk County	Parks & Recreation exchanges information on program updates and plans.	Informal	Good				
35	Polk County	Airport works to control tall structures within traffic airspace.	State Law	Good				
36	Polk County	Community Development shares information with County Planning and exchanges data, maps, documents, etc. at no charge.	Informal	Good				
37	Polk County	Community Development does joint planning in City's area of concern.	Formal	Good				
38	Polk County	Community Development coordinates on housing issues; County funds some housing rehabilitation and Weed and Seed program in the City.	Formal	Good				

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39	Polk County	E&W Business Development furnishes various electric and water planning data to Polk County Planning Department and Lakeland Economic Development Council.	Informal	Good				
40	Polk County	E&W Business Development member sits in the Polk County Economic Development Industry Committee meetings.	Formal	Good				
41	Polk County Courthouse	Public Works-Parking coordinate and appear in court on parking citations.	Formal	Good				
42	Polk School Board	E&W Water & Energy Advisor promotes conservation at all schools; provides judges and prizes at Polk County Science Fair.	Informal	Long-term effects				
43	Polk School Board	City Manager provides in-kind services for School Economic Day.	Informal	Good				
44	Polk School Board	Parks & Recreation shares, exchanges and rents facilities; uses school buses for summer programs.	Formal	Good				
45	Polk School Board	Fire Department Public Education Officer promotes fire safety at schools.	Informal	Good				
46	Polk School Board	Ridge Vo-Tech lends videos and special items for education and leases training center.	Formal	Good				

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47	Polk School Board	Public Works provides impact fee exempt wastewater service; facilities manager coordinates sidewalks needs.	Routine	Good				
48	Polk School Board	School resource program expanded to four offices.	Formal	Good				
49	Polk School Board	Police Department assigns 4 resource officers to schools in urban area for drug awareness, crime prevention and truancy pickup; 10 high school CBE interns work ½ days.	Formal	Good				
50	Polk School Board	E&W, Civil Service participates in annual career day.	Informal	Good				
51	Lakeland High Schools	E&W reserves summer internships for students in Lakeland schools.	Informal	Good				
52	Lakeland High Schools	E&W reserves openings for Lakeland High School students for BCE & DCE positions.	Formal	Good				
53	Private Schools	E&W Water & Energy Advisor promotes conservation at Santa Fe High and Lakeland Christian Schools.	Informal	Good				
54	Private Schools	Parks & Recreation offers field care advice to Santa Fe High and rents recreation facilities.	Informal	Good				

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55	Private Schools	Fire Department Public Safety Officer promotes fire safety at private schools and Day Care Centers.	Informal	Good				
56	Colleges	Community Development places interns on special projects.	Informal	Good				
57	Colleges	Community Development coordinates with college programs and students doing studies relevant to neighborhood or city planing issues.	Informal	Good				
58	Colleges	E&W furnishes space & broadcasting equipment to receive USF off-campus classes.	Formal	New program				
59	Colleges	E&W reserves slots for college interns and cooperative education students.	Formal	Good				
60	Colleges	E&W staff member on the USF Engineering Advisory Committee.	Informal	Good				
61	Colleges	Parks & Recreation rents fields and stadiums to area colleges.	Informal	Good				
62	Colleges	Parks & Recreation provides lectures for recreation courses.	Informal	Good				

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63	Colleges	Fire Department receives continuing education courses from FSC, Florida State University, Polk Community College.	Informal	Good				
64	Colleges	Finance Department accepts interns from FSC.	Formal	Good				
65	Colleges	Employee Relations Training schedules courses for city employees through PCC continuing education programs.	Formal	Good				
66	Colleges	Police Department works with FSC co-op students in criminal justice.	Informal	Good				
67	Colleges	Police officers teach at PCC Police Academy; 600 hours training required for all new officers; PCC coordinates the academy and a full-time coordinator. Department of Education certifies instructors, who are Lakeland Police Officers or Polk County Deputies; cooperative arrangements for facilities exchange with PCC.	State Law	Good				
68	Colleges	E&W staff member on the Business Education Advisory Board at PCC-Winter Haven.	Informal	Good				
69	Colleges	E&W and Civil Service staff participate in career fairs as USF, FSC, PCC and others.	Informal	Good				

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70	Colleges	Firefighters teach at Ridge Vo-Tech in Firefighter certification. 320 hrs. required for all new firefighters; training and facilities exchange.	State Law	Good				
71	Technical Schools	E&W staff member on the General Advisory Board and the Quality Improvement Board for Travis Technical Center.	Informal	Good				
72	Technical Schools	E&W & Civil Service Staff on the Vocational Education of Students of Other Languages (VESOL) Advisory Board at Travis Technical Center.	Informal	Good				
INDEPENDENT DISTRICTS								
73	West Lakeland Drainage District	Public Works Departments coordinates projects for West Lakeland DRI.	State Law	New District				
74	West Lakeland Drainage District	Airport participates in sizing drainage infrastructure to accept District's downstream flow.	Formal	Inequitable for airport				
75	Downtown Business Group	Coordinate on planning issues & infrastructure improvements.	Informal; monthly meeting	Good				
76	LAMTD (Lakeland Area Mass Transit District)	Finance Department does financial reporting and includes LAMTD in City audit; checks require finance counter-signature.	Formal	Good				

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77	LAMTD	City Commissioners on LAMTD Board which governs budget allocations for mass transit.	Formal	Good				
78	LAMTD	Planning Division reviews Transit Development Plan Updates.	Informal	Good				
79	LDDA/CRA (Lakeland Downtown Development Authority/Community Redevelopment Agency)	Police Department participates jointly in target area projects; LDDA input for police facility sites.	Informal	Good				
80	LDDA/CRA	Police Department personnel are advisors to CRA Nuisance Abatement Board and CRAC (Drug) Board.	Formal	Good				
81	LDDA/CRA	City Commission coordinates as redevelopment agency.	Formal	Good				
82	LDDA/CRA	City Commission approves budget. Finance Department receives financial reports; Finance returns tax increments.	Formal	Good				
83	LDDA/CRA	Public Works Department implements projects such as Streetscape.	Routine	Good				

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84	LDDA/CRA	Parks & Recreation Department assists with special events.	Routine	Good				
85	LDDA/CRA	Fire Department communicates on code enforcement and building profile controls.	Informal	Good				
86	LDDA/CRA	Community Development coordinates planning in downtown areas.	Routine	Good				
87	SWFWMD (Southwest Florida Water Management District)	Police Department coordinates enforcement of water restrictions.	Informal	Good				
88	SWFWMD	Public Works reviews wetland and wastewater permits to the District.	Routine	Good				
89	SWFWMD	E&W has consumptive use permit for withdrawals with wellfield restrictions.	Formal	Good				
90	SWFWMD	E&W water consumptive use permits; stormwater management facilities.	Formal	Good				
91	SWFWMD	E&W submits water conservation plans.	Formal	Good				
92	SWFWMD	Airport monitored for wetlands and ditches.	Formal	Disagreement with policies.				

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93	SWFWMD	Community Development submits comprehensive plans for review.	State Law	Good				
REGIONAL AGENCIES/AUTHORITIES								
94	CFRPC (Central Florida Regional Planning Council)	Airport submits 5-year plans and grants for review.	State Mandate	Good				
95	CFRPC	Fire Department is member of Local Emergency Planning Council.	Formal	Good				
96	CFRPC	E&W participates with Sara Title III Council on hazardous materials.	State/Federal Laws	Good				
97	CFRPC	Community Development gives input to Regional Comprehensive Policy Plan.	Informal	Good				
98	CFRPC	Community Development consults with Region for DRI's and submits Comprehensive Plan for review and comment.	State Mandate	Good				
99	LHA (Lakeland Housing Authority)	Fire Department applies fire codes for multi-family dwellings.	Formal Code	Good				
100	LHA	Fire Department distributes smoke detectors with CDBG funds.	Informal	Good				

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101	LHA	Parks & Recreation participates in special projects.	Informal	Good				
102	LHA	E&W verifies non-payments by clients, meter tampering, etc.	Informal	Good				
103	LHA	Community Development Citizen Advisory Committee reserves membership slot for LHA.	Formal	Good				
104	LHA	Community Development receives information for Housing Assistance Plan.	Informal	Good				
105	LHA	LPD (COPS VIII Grant) provides funding for three sworn officers to work on LHA properties.	Formal	Good				
106	LHA	LPD (COPS VII Grant) provides funding for one sergeant, six officers and three crime prevention practitioners to work on LHA properties.	Formal	Good				
107	LHA	LPD (Safe Neighborhood Grant) funds camera system and one investigator for expanded Weed and Seed area.	Formal	Good				
108	LHA	LPD (COPS Universal Hiring Grant) provides funding assistance for officer to work on LHA property.	Formal	Good				

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109	LHA	LPD (New Approach Anti-Drug Grant) funds camera system and one investigator.	Formal	Good				
110	LHA	LPD/Toys for Tots provides Christmas toys for children in complexes.	Informal	Good				
111	Polk County Community Traffic Safety Team	Public Works/Traffic Operations and Lakeland Police Department are members.	Formal	Good				
112	TPO (formerly "Metropolitan Planning Organization")	Public Works is a member of the Technical Advisory Committee.	Formal	Good				
113	TPO	Community Development is a member of the Technical Advisory Committee.	Formal	Good				

STATE AGENCIES								
114	Archives	Central Services receives State approval for disposal of expired public records.	State Law	Good				
115	Community Affairs	Police Department receives grant information for drug enforcement.	Formal	Good				

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116	Community Affairs	Coordinate and monitor program funds for SHIP.	Formal	Good				
117	Community Affairs	Send for State review and approval any amend-ments to Comprehensive Plan.	Formal	Good				
118	Comptroller	Fire Department receives benefits to pension funds collected from insurance companies' excise tax.	Formal	Good				
119	Corrections	Police Department investigations related to City holding cells.	State Law	Good				
120	Enforcement-Motor Vehicle Registration	Public Works-Parking coordinate vehicle tag stoppages monthly within the City.	Formal	Good				
121	Fire Marshal	Fire Department adopts State Code on rules and standards.	State Law	Good				
122	Fire Marshal	Community Development applies minimum codes for Building Inspection.	State Law	Good				
123	Forestry	Airport utilizes burn services to clear land areas; aircraft based at airport.	Routine	Good				
124	Forestry	Fire Department has Mutual Aid Agreement for forest fire laws and wildfire prevention.	Formal	Good				

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125	Forestry	Parks & Recreation receives seedlings.	Informal	Good				
126	FGFWFC (Florida Game & Fresh Water Fish Commission)	E&W osprey nest removal.	Formal	Good				
127	FGFWFC	Public Works receives permits for dredge and fill work, aquatic vegetation, lake management and environmental programs.	Formal	Good				
128	FGFWFC	E&W reports runoff, spills and discharges.	Formal	Good				
129	FGFWFC	Parks & Recreation receive fish feeders and alligator control services.	Informal	Good				
130	Department of Children & Family Services	Fire Department is EMT.D certified in emergency services and use of automatic defibrillators.	Informal	Good				
131	Department of Children & Family Services	E&W works with department on utility payment assistance programs.	Formal	Good				
132	Department of Children & Family Services	E&W works with Aging and Community Services Unit in identifying people in need of assistance through the "gatekeeper" program.	Formal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
133	Department of Health	E&E radiation licenses for electric generation and water divisions.	Formal	Good				
134	Highway Patrol	Police Department coordinates traffic accidents.	Routine	Good				
135	Highway Patrol	Fire Department responds to accidents and provides rescue extrication.	Informal	Good				
136	Office of Procurement	Central Services receives copies of State purchasing contracts and reports all contract purchases.	State Law	Good				
137	Law Enforcement	Police Department reports events, statistics and crime data.	Routine	Good				
138	Law Enforcement	Fire Department has 3 officers who investigate arson.	Formal	Good				
139	Law Enforcement	Police Department communications connected with State.	State Law	Good				
140	Law Enforcement	Police Department receives court money through Division of Standards and Training.	Formal	Good				
141	Professional Regulation	Community Development coordinates licensing of contracts through Building Inspection Division.	State Law	Good				

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142	Professional Regulation	Finance coordinates suspension of occupational licenses.	State Law	Good				
143	Public Service Commission	E&W receives approval for rate structure, standards, and power grid system.	Formal	Good				
144	Revenue	E&W sends gross receipts tax, sales tax on equipment and other collections.	Routine	Good				
145	Revenue	Central Services submits fuel revenue reports, sends taxes collected and receives on-road fuel credits.	State Law	Good				
146	Revenue	City Manager receives State revenue projections.	Routine	Good				
147	Revenue	M.I.S./Occ. Lic. Annual report of occupational license data.	Formal	Good				
148	Revenue	Finance receives State revenue sharing funds.	Formal	Good				
149	Florida Department of State – Bureau of Historic Preservation	Coordinate review of activity for 5 historic districts and other activities.	Formal	Good				
150	State Attorney	Fire Department coordinates arson investigations.	Routine	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
151	State Attorney	E&W RPO Section coordinates prosecution of energy and water theft.	Formal	Good				
152	Workers Compensation	Finance subject to audit and files Risk Management report; pay self-insured assessments to State.	Formal	Good				
153	State Treasurer Department of Insurance	Fire Department receives incentive pay for firefighters' education.	Formal	Good				

LAND USE AUTHORITIES

154	DEP (Dept. of Environmental Protection)	Airport monitored for contaminants, "Waters of State" and wetlands.	Formal	Good; some disagreement on wetlands				
155	DEP	E&W involved with environmental and water operations, dredge and fill permits.	Formal	Good				
156	DEP	Fire Department responds to chemical spills.	State Law	Good				
157	DEP	Central Services maintains reports on under-ground fuel tanks and submits motor pool report for disposal of used oil, fuel storage (overages or shortages).	State Law	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
158	DEP	Public Works obtains permits for wetlands construction and dredge and fill work.	Formal	Good				
159	DEP	City Manager administers consent agreements through Risk Management.	Formal	Good				
160	DEP	E&W has petroleum contaminated site.	Formal	Good				
161	DEP	E&W air emissions, water discharge permits; solid waste disposal; power plant site certification.	Formal	Good				
162	DEP	E&W dredge and fill permits for T&D and water divisions.	Formal	Good				
163	DEP	Public Works-Wastewater coordinate on permits and inspections.	Formal	Permitting: Good Inspections: Fair				
164	DEP	Parks Department receives permits during development process.	Formal	Good				
165	DEP	E&W receives training for smoke identification.	Formal	Good				
166	DEP – Div. of Natural Resources	E&W maintains several areas for hazardous waste disposal.	State/Federal Law	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
167	DEP – Div. of Natural Resources	E&W inventories eagle and osprey nests on poles monitored by DNR.	State/Federal Law	Good				
168	DEP – Div. of Natural Resources	Public Works obtains permits for lakes management.	Formal	Good				
169	DEP – Div. of Natural Resources	City Manager sponsors LE/AD activities and special projects.	Informal	Good				
170	DEP – Div. of Natural Resources	Parks & Recreation receives professional trade information and grants for surveys, land purchase, and development.	Formal	Good				
171	DOT (Department of Transportation)	Airport licensed by DOT and receives project funding.	Formal	Good				
172	DOT	Fire Department operates preemptive lights onto roadways; approval for air tanks; DOT limits explosives and placards transport vehicles.	State Law	Good				
173	DOT	Police Department responds to rail or other accidents involving chemicals.	Informal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
174	DOT	Public Works obtains permits for work within State right-of-way for driveways, drainage, utility installation, sidewalks and landscaping.	Formal	Good				
175	DOT	Public Works-Traffic shares accident reports, traffic counts, and other data at no charge.	Informal	Good				
176	Florida Department of Transportation (FDOT)	Coordinate on road projects inside City.	Formal	Good				
177	FDOT & TPO	Submit applications for federally-funded projects administered by the State (i.e. FDOT).	Formal; usually annual	Good				
178	EPA (Environmental Protection Agency)	Airport tenants monitored for aircraft painting; National Pollutant Discharge Elimination System.	Formal	Good				
179	EPA	E&W permitted for plant emissions.	Formal	Good				
180	EPA	Central Services checked for compliance at motor pool for catalytic converters, correct nozzle sizing for unleaded gas and amount of gas pumped by type.	Federal Law	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
181	EPA	Public Works obtains permits for wastewater and stormwater discharges.	Formal	Good				
182	EPA	City Manager administers Right-to-Know law for employees and environmental hazard mitigation through Risk Management.	Federal Law	Good				
183	Corp of Engineers	Public Works-Wastewater coordinate on permitting of wetlands.	Formal	Average				
184	Corp of Engineers	E&W dredge and fill permit activities.	Formal	Good				
185	U.S. Fish & Wildlife Services	E&W coordination of osprey nest removal.	Formal	Good				
UTILITIES								
186	Cable TV	E&W coordinates digging and construction activity.	Routine	Good				
187	Cable TV	Finance receives franchise payment based on sales.	State Law	Good				
188	Cable TV	Central Services provides residential vacancies.	Formal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
189	Cable TV	Parks & Recreation coordinates broadcast of special events at stadium.	Formal	Good				
190	Cable TV	Airport coordinates tower and line placements in airspace.	Informal	Good				
191	Cable TV	E&W coordinates pole attachment agreements allowing both TV and telephone attachments to City-owned utility poles.	Formal	Good				
192	GTE Telephone	Police Department involved with "911" emergency phone system.	Formal	Good				
193	GTE	Finance receives 1% of gross local service revenues originating in City.	Formal	Good				
194	GTE	Central Services furnishes information for marketing surveys, blue pages and "911" database.	Informal	Good				
195	GTE	Finance receives telecommunications taxes locally.	Formal	Good				
196	GTE	Fire Department participates in updating "911" database.	Formal	Good				
197	Peoples Gas	Finance receives 5.7% of franchise gas sales except industrial.	Formal	Good				

AGREE #	COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS	OK AS IS	DELETE (see Form 1)	HAS BEEN CHANGED (see Form 2)	CHANGE NEEDED (see Form 2)
198	Electric	E&W joint ownership of McIntosh generating unit and coal cars with Orlando Utilities.	Formal	Good				
199	Electric	E&W contracts power exchanges with other utilities.	Formal	Good				
200	Electric	E&W Corporate Planning contributes to various training and consultation sessions concerning electric utility planning with other utilities.	Informal	Good				
201	Electric	E&W members serve on various task forces of the Florida Reliability Coordinating Council to plan State's future electric needs.	Formal	Good				
202	Electric	E&W joint ownership of fiber optic cable with TECO.	Formal	Good				
203	Electric	E&W works with other state utilities throughout Florida Reliability Coordinating Council.	Formal	Good				

APPENDIX VIII-ONE
INVENTORY OF INTERGOVERNMENTAL COORDINATION

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Auburndale Bartow Mulberry Winter Haven	Airport exchanges information with Bartow and Winter Haven airports.	Informal	Good
Auburndale Bartow Mulberry Winter Haven	City Manager monthly meeting with cities to establish personal benchmarks.	Informal	Good
Auburndale Bartow Plant City Winter Haven	Parks & Recreation communicates monthly with Plant City, Auburndale, Bartow and Winter Haven on programs, cost comparisons, and facility comparisons.	Informal	Good
Auburndale Bartow Mulberry Winter Haven	Police Department maintains field communication, information exchange, and meetings on criminal activity with all adjacent local governments.	Informal	Good, Effective
Auburndale Bartow Mulberry Winter Haven	Fire Department has mutual aid agreement with all adjacent governments.	Formal	Good
Auburndale Bartow Mulberry Winter Haven	Mutual Aid Association meets monthly on communication and emergency needs.	Formal	City cannot always adhere to what is voted upon by membership.
Auburndale Bartow Mulberry Winter Haven	Paid Fire Chiefs Association from local area meets regularly for up-grading service and education.	Informal	Good
Auburndale Bartow Mulberry Winter Haven	Community Development exchanges with all adjacent cities.	Informal	Fair, Most information from news media
Auburndale Bartow Mulberry Winter Haven	E&W Business Development provides information to adjacent cities' chambers of commerce as well as the Lakeland & Polk County chambers.	Informal	Good
Polk City	E&W owns public water system.	Formal	Good
Polk City	E&W is billing agent for utility billing.	Formal	Good
Hillsborough Co.	Police Department works with Hillsborough County Law Enforcement Agencies as necessary.	Informal	Good
Hillsborough Co.	Fire Department works with a volunteer fire department in Hillsborough County.	Informal	Good
Polk County	City Manager meets monthly to review City/County issues.	Informal	Good
Polk County	E&W provides radio alerting devices for County Civil Defense and works with all aspects of public safety.	State Law	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Polk County	Fire Department receives \$300,000 to protect specified areas outside City limits.	Formal	Good
Polk County	E&W has various water arrangements with County.	Formal	Good
Polk County	E&W member of Polk Utility Group for coordinating R/W work.	Informal	Good
Polk County	Central Services co-licenses Sheriff's office for joint frequency use and contracts to allow sheriff use of City transmission tower.	Formal	Good
Polk County	Central Services shares information with the property appraiser.	Formal	Good
Polk County	Police Department has a mutual aid agreement with the Sheriff's office to provide assistance in time of need.	Formal	Good
Polk County	Police Department shares specialized equipment.	Informal	Good
Polk County	Police Department gathers crime information for areas annexed into the City.	Informal	County database information is incomplete.
Polk County	Finance Department receives tax money collected by County.	State Law	Good
Polk County	Finance receives gas taxes from County.	Formal	Good
Polk County	Communication between Finance and County tax collector and property appraiser on audit reports, millage rates in special districts, budget projections, assessed values, budget ordinances and ad valorem information.	Informal	Good
Polk County	Public Works receives utility, driveway and use permits for work within the County right-of-way.	Formal	Good
Polk County	Finance receives Tourist Development taxes.	Formal	Good
Polk County	Public Works-Solid Waste has Interlocal Agreement to manage recycling.	Formal	Good
Polk County	Public Works-Traffic shares accident reports, traffic counts, and other data at no charge.	Informal	Good
Polk County	Central Svcs/M.I.S. Lakeland Area Real Property downloaded from property appraiser.	Routine	Good
Polk County	City annexations involve transfer of road maintenance and annual verification of maintenance by Public Works.	Formal	Good
Polk County	Public Works coordinates with the County on wastewater service permits and service areas.	Informal	Fair
Polk County	Parks & Recreation exchanges information on program updates and plans.	Informal	Good
Polk County	Airport works to control tall structures within traffic airspace.	State Law	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Polk County	Community Development shares information with County Planning and exchanges data, maps, documents, etc. at no charge.	Informal	Good
Polk County	Community Development does joint planning in City's area of concern.	Formal	Good
Polk County	Community Development coordinates on housing issues; County funds some housing rehabilitation and Weed and Seed program in the City.	Formal	Good
Polk County	E&W Business Development furnishes various electric and water planning data to Polk County Planning Department and Lakeland Economic Development Council.	Informal	Good
Polk County	E&W Business Development member sits in the Polk County Economic Development Industry Committee meetings.	Formal	Good
Polk County Courthouse	Public Works-Parking coordinate and appear in court on parking citations.	Formal	Good
Polk School Board	E&W Water & Energy Advisor promotes conservation at all schools; provides judges and prizes at Polk County Science Fair.	Informal	Long-term effects
Polk School Board	City Manager provides in-kind services for School Economic Day.	Informal	Good
Polk School Board	Parks & Recreation shares, exchanges and rents facilities; uses school buses for summer programs.	Formal	Good
Polk School Board	Fire Department Public Education Officer promotes fire safety at schools.	Informal	Good
Polk School Board	Ridge Vo-Tech lends videos and special items for education and leases training center.	Formal	Good
Polk School Board	Public Works provides impact fee exempt wastewater service; facilities manager coordinates sidewalks needs.	Routine	Good
Polk School Board	School resource program expanded to four offices.	Formal	Good
Polk School Board	Police Department assigns 4 resource officers to schools in urban area for drug awareness, crime prevention and truancy pickup; 10 high school CBE interns work ½ days.	Formal	Good
Polk School Board	E&W, Civil Service participates in annual career day.	Informal	Good
Lakeland High Schools	E&W reserves summer internships for students in Lakeland schools.	Informal	Good
Lakeland High Schools	E&W reserves openings for Lakeland High School students for BCE & DCE positions.	Formal	Good
Private Schools	E&W Water & Energy Advisor promotes conservation at Santa Fe High and Lakeland Christian Schools.	Informal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Private Schools	Parks & Recreation offers field care advice to Santa Fe High and rents recreation facilities.	Informal	Good
Private Schools	Fire Department Public Safety Officer promotes fire safety at private schools and Day Care Centers.	Informal	Good
Colleges	Community Development places interns on special projects.	Informal	Good
Colleges	Community Development coordinates with college programs and students doing studies relevant to neighborhood or city planning issues.	Informal	Good
Colleges	E&W furnishes space & broadcasting equipment to receive USF off-campus classes.	Formal	New program
Colleges	E&W reserves slots for college interns and cooperative education students.	Formal	Good
Colleges	E&W staff member on the USF Engineering Advisory Committee.	Informal	Good
Colleges	Parks & Recreation rents fields and stadiums to area colleges.	Informal	Good
Colleges	Parks & Recreation provides lectures for recreation courses.	Informal	Good
Colleges	Fire Department receives continuing education courses from FSC, Florida State University, Polk Community College.	Informal	Good
Colleges	Finance Department accepts interns from FSC.	Formal	Good
Colleges	Employee Relations Training schedules courses for city employees through PCC continuing education programs.	Formal	Good
Colleges	Police Department works with FSC co-op students in criminal justice.	Informal	Good
Colleges	Police officers teach at PCC Police Academy; 600 hours training required for all new officers; PCC coordinates the academy and a full-time coordinator. Department of Education certifies instructors, who are Lakeland Police Officers or Polk County Deputies; cooperative arrangements for facilities exchange with PCC.	State Law	Good
Colleges	E&W staff member on the Business Education Advisory Board at PCC-Winter Haven.	Informal	Good
Colleges	E&W and Civil Service staff participate in career fairs as USF, FSC, PCC and others.	Informal	Good
Colleges	Firefighters teach at Ridge Vo-Tech in Firefighter certification. 320 hrs. required for all new firefighters; training and facilities exchange.	State Law	Good
Technical Schools	E&W staff member on the General Advisory Board and the Quality Improvement Board for Travis Technical Center.	Informal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Technical Schools	E&W & Civil Service Staff on the Vocational Education of Students of Other Languages (VESOL) Advisory Board at Travis Technical Center.	Informal	Good
INDEPENDENT DISTRICTS			
West Lakeland Drainage District	Public Works Departments coordinates projects for West Lakeland DRI.	State Law	New District
West Lakeland Drainage District	Airport participates in sizing drainage infrastructure to accept District's downstream flow.	Formal	Inequitable for airport
Downtown Business Group	Coordinate on planning issues & infrastructure improvements.	Informal; monthly meeting	Good
LAMTD (Lakeland Area Mass Transit District)	Finance Department does financial reporting and includes LAMTD in City audit; checks require finance counter-signature.	Formal	Good
LAMTD	City Commissioners on LAMTD Board which governs budget allocations for mass transit.	Formal	Good
LAMTD	Planning Division reviews Transit Development Plan Updates.	Informal	Good
LDDA/CRA (Lakeland Downtown Development Authority/Community Redevelopment Agency)	Police Department participates jointly in target area projects; LDDA input for police facility sites.	Informal	Good
LDDA/CRA	Police Department personnel are advisors to CRA Nuisance Abatement Board and CRAC (Drug) Board.	Formal	Good
LDDA/CRA	City Commission coordinates as redevelopment agency.	Formal	Good
LDDA/CRA	City Commission approves budget. Finance Department receives financial reports; Finance returns tax increments.	Formal	Good
LDDA/CRA	Public Works Department implements projects such as Streetscape.	Routine	Good
LDDA/CRA	Parks & Recreation Department assists with special events.	Routine	Good
LDDA/CRA	Fire Department communicates on code enforcement and building profile controls.	Informal	Good
LDDA/CRA	Community Development coordinates planning in downtown areas.	Routine	Good
SWFWMD (Southwest Florida Water Management District)	Police Department coordinates enforcement of water restrictions.	Informal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
SWFWMD	Public Works reviews wetland and wastewater permits to the District.	Routine	Good
SWFWMD	E&W has consumptive use permit for withdrawals with wellfield restrictions.	Formal	Good
SWFWMD	E&W water consumptive use permits; stormwater management facilities.	Formal	Good
SWFWMD	E&W submits water conservation plans.	Formal	Good
SWFWMD	Airport monitored for wetlands and ditches.	Formal	Disagreement with policies.
SWFWMD	Community Development submits comprehensive plans for review.	State Law	Good
REGIONAL AGENCIES/AUTHORITIES			
CFRPC (Central Florida Regional Planning Council)	Airport submits 5-year plans and grants for review.	State Mandate	Good
CFRPC	Fire Department is member of Local Emergency Planning Council.	Formal	Good
CFRPC	E&W participates with Sara Title III Council on hazardous materials.	State/Federal Laws	Good
CFRPC	Community Development gives input to Regional Comprehensive Policy Plan.	Informal	Good
CFRPC	Community Development consults with Region for DRI's and submits Comprehensive Plan for review and comment.	State Mandate	Good
LHA (Lakeland Housing Authority)	Fire Department applies fire codes for multi-family dwellings.	Formal Code	Good
LHA	Fire Department distributes smoke detectors with CDBG funds.	Informal	Good
LHA	Parks & Recreation participates in special projects.	Informal	Good
LHA	E&W verifies non-payments by clients, meter tampering, etc.	Informal	Good
LHA	Community Development Citizen Advisory Committee reserves membership slot for LHA.	Formal	Good
LHA	Community Development receives information for Housing Assistance Plan.	Informal	Good
LHA	LPD (COPS VIII Grant) provides funding for three sworn officers to work on LHA properties.	Formal	Good
LHA	LPD (COPS VII Grant) provides funding for one sergeant, six officers and three crime prevention practitioners to work on LHA properties.	Formal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
LHA	LPD (Safe Neighborhood Grant) funds camera system and one investigator for expanded Weed and Seed area.	Formal	Good
LHA	LPD (COPS Universal Hiring Grant) provides funding assistance for officer to work on LHA property.	Formal	Good
LHA	LPD (New Approach Anti-Drug Grant) funds camera system and one investigator.	Formal	Good
LHA	LPD/Toys for Tots provides Christmas toys for children in complexes.	Informal	Good
Polk County Community Traffic Safety Team	Public Works/Traffic Operations and Lakeland Police Department are members.	Formal	Good
TPO (formerly "Metropolitan Planning Organization")	Public Works is a member of the Technical Advisory Committee.	Formal	Good
TPO	Community Development is a member of the Technical Advisory Committee.	Formal	Good
STATE AGENCIES			
Archives	Central Services receives State approval for disposal of expired public records.	State Law	Good
Community Affairs	Police Department receives grant information for drug enforcement.	Formal	Good
Community Affairs	Coordinate and monitor program funds for SHIP.	Formal	Good
Community Affairs	Send for State review and approval any amendments to Comprehensive Plan.	Formal	Good
Comptroller	Fire Department receives benefits to pension funds collected from insurance companies' excise tax.	Formal	Good
Corrections	Police Department investigations related to City holding cells.	State Law	Good
Enforcement-Motor Vehicle Registration	Public Works-Parking coordinate vehicle tag stoppages monthly within the City.	Formal	Good
Fire Marshal	Fire Department adopts State Code on rules and standards.	State Law	Good
Fire Marshal	Community Development applies minimum codes for Building Inspection.	State Law	Good
Forestry	Airport utilizes burn services to clear land areas; aircraft based at airport.	Routine	Good
Forestry	Fire Department has Mutual Aid Agreement for forest fire laws and wildfire prevention.	Formal	Good
Forestry	Parks & Recreation receives seedlings.	Informal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
FGFWFC (Florida Game & Fresh Water Fish Commission)	E&W osprey nest removal.	Formal	Good
FGFWFC	Public Works receives permits for dredge and fill work, aquatic vegetation, lake management and environmental programs.	Formal	Good
FGFWFC	E&W reports runoff, spills and discharges.	Formal	Good
FGFWFC	Parks & Recreation receive fish feeders and alligator control services.	Informal	Good
Department of Children & Family Services	Fire Department is EMT.D certified in emergency services and use of automatic defibrillators.	Informal	Good
Department of Children & Family Services	E&W works with department on utility payment assistance programs.	Formal	Good
Department of Children & Family Services	E&W works with Aging and Community Services Unit in identifying people in need of assistance through the "gatekeeper" program.	Formal	Good
Department of Health	E&E radiation licenses for electric generation and water divisions.	Formal	Good
Highway Patrol	Police Department coordinates traffic accidents.	Routine	Good
Highway Patrol	Fire Department responds to accidents and provides rescue extrication.	Informal	Good
Office of Procurement	Central Services receives copies of State purchasing contracts and reports all contract purchases.	State Law	Good
Law Enforcement	Police Department reports events, statistics and crime data.	Routine	Good
Law Enforcement	Fire Department has 3 officers who investigate arson.	Formal	Good
Law Enforcement	Police Department communications connected with State.	State Law	Good
Law Enforcement	Police Department receives court money through Division of Standards and Training.	Formal	Good
Professional Regulation	Community Development coordinates licensing of contracts through Building Inspection Division.	State Law	Good
Professional Regulation	Finance coordinates suspension of occupational licenses.	State Law	Good
Public Service Commission	E&W receives approval for rate structure, standards, and power grid system.	Formal	Good
Revenue	E&W sends gross receipts tax, sales tax on equipment and other collections.	Routine	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Revenue	Central Services submits fuel revenue reports, sends taxes collected and receives on-road fuel credits.	State Law	Good
Revenue	City Manager receives State revenue projections.	Routine	Good
Revenue	M.I.S./Occ. Lic. Annual report of occupational license data.	Formal	Good
Revenue	Finance receives State revenue sharing funds.	Formal	Good
Florida Department of State – Bureau of Historic Preservation	Coordinate review of activity for 5 historic districts and other activities.	Formal	Good
State Attorney	Fire Department coordinates arson investigations.	Routine	Good
State Attorney	E&W RPO Section coordinates prosecution of energy and water theft.	Formal	Good
Workers Compensation	Finance subject to audit and files Risk Management report; pay self-insured assessments to State.	Formal	Good
State Treasurer Department of Insurance	Fire Department receives incentive pay for firefighters' education.	Formal	Good

LAND USE AUTHORITIES

DEP (Dept. of Environmental Protection)	Airport monitored for contaminants, "Waters of State" and wetlands.	Formal	Good; some disagreement on wetlands
DEP	E&W involved with environmental and water operations, dredge and fill permits.	Formal	Good
DEP	Fire Department responds to chemical spills.	State Law	Good
DEP	Central Services maintains reports on underground fuel tanks and submits motor pool report for disposal of used oil, fuel storage (overages or shortages).	State Law	Good
DEP	Public Works obtains permits for wetlands construction and dredge and fill work.	Formal	Good
DEP	City Manager administers consent agreements through Risk Management.	Formal	Good
DEP	E&W has petroleum contaminated site.	Formal	Good
DEP	E&W air emissions, water discharge permits; solid waste disposal; power plant site certification.	Formal	Good
DEP	E&W dredge and fill permits for T&D and water divisions.	Formal	Good
DEP	Public Works-Wastewater coordinate on permits and inspections.	Formal	Permitting: Good Inspections: Fair

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
DEP	Parks Department receives permits during development process.	Formal	Good
DEP	E&W receives training for smoke identification.	Formal	Good
DEP – Div. of Natural Resources	E&W maintains several areas for hazardous waste disposal.	State/Federal Law	Good
DEP – Div. of Natural Resources	E&W inventories eagle and osprey nests on poles monitored by DNR.	State/Federal Law	Good
DEP – Div. of Natural Resources	Public Works obtains permits for lakes management.	Formal	Good
DEP – Div. of Natural Resources	City Manager sponsors LE/AD activities and special projects.	Informal	Good
DEP – Div. of Natural Resources	Parks & Recreation receives professional trade information and grants for surveys, land purchase, and development.	Formal	Good
DOT (Department of Transportation)	Airport licensed by DOT and receives project funding.	Formal	Good
DOT	Fire Department operates preemptive lights onto roadways; approval for air tanks; DOT limits explosives and placards transport vehicles.	State Law	Good
DOT	Police Department responds to rail or other accidents involving chemicals.	Informal	Good
DOT	Public Works obtains permits for work within State right-of-way for driveways, drainage, utility installation, sidewalks and landscaping.	Formal	Good
DOT	Public Works-Traffic shares accident reports, traffic counts, and other data at no charge.	Informal	Good
Florida Department of Transportation (FDOT)	Coordinate on road projects inside City.	Formal	Good
FDOT & TPO	Submit applications for federally-funded projects administered by the State (i.e. FDOT).	Formal; usually annual	Good
EPA (Environmental Protection Agency)	Airport tenants monitored for aircraft painting; National Pollutant Discharge Elimination System.	Formal	Good
EPA	E&W permitted for plant emissions.	Formal	Good
EPA	Central Services checked for compliance at motor pool for catalytic converters, correct nozzle sizing for unleaded gas and amount of gas pumped by type.	Federal Law	Good
EPA	Public Works obtains permits for wastewater and stormwater discharges.	Formal	Good
EPA	City Manager administers Right-to-Know law for employees and environmental hazard mitigation through Risk Management.	Federal Law	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Corp of Engineers	Public Works-Wastewater coordinate on permitting of wetlands.	Formal	Average
Corp of Engineers	E&W dredge and fill permit activities.	Formal	Good
U.S. Fish & Wildlife Services	E&W coordination of osprey nest removal.	Formal	Good
UTILITIES			
Cable TV	E&W coordinates digging and construction activity.	Routine	Good
Cable TV	Finance receives franchise payment based on sales.	State Law	Good
Cable TV	Central Services provides residential vacancies.	Formal	Good
Cable TV	Parks & Recreation coordinates broadcast of special events at stadium.	Formal	Good
Cable TV	Airport coordinates tower and line placements in airspace.	Informal	Good
Cable TV	E&W coordinates pole attachment agreements allowing both TV and telephone attachments to City-owned utility poles.	Formal	Good
GTE Telephone	Police Department involved with "911" emergency phone system.	Formal	Good
GTE	Finance receives 1% of gross local service revenues originating in City.	Formal	Good
GTE	Central Services furnishes information for marketing surveys, blue pages and "911" database.	Informal	Good
GTE	Finance receives telecommunications taxes locally.	Formal	Good
GTE	Fire Department participates in updating "911" database.	Formal	Good
Peoples Gas	Finance receives 5.7% of franchise gas sales except industrial.	Formal	Good
Electric	E&W joint ownership of McIntosh generating unit and coal cars with Orlando Utilities.	Formal	Good
Electric	E&W contracts power exchanges with other utilities.	Formal	Good
Electric	E&W Corporate Planning contributes to various training and consultation sessions concerning electric utility planning with other utilities.	Informal	Good
Electric	E&W members serve on various task forces of the Florida Reliability Coordinating Council to plan State's future electric needs.	Formal	Good

COORDINATING ENTITY	CITY COORDINATING DEPARTMENT	NATURE OF RELATIONSHIP	EFFECTIVENESS
Electric	E&W joint ownership of fiber optic cable with TECO.	Formal	Good
Electric	E&W works with other state utilities throughout Florida Reliability Coordinating Council.	Formal	Good

IX. CAPITAL IMPROVEMENTS

INTRODUCTION

The Capital Improvements Element (CIE) of the Lakeland Comprehensive Plan is one mechanism through which the City achieves the intent of the 1985 Growth Management Act, i.e. planning for the availability of public facilities and services to support development concurrent with the impacts of such development. The Capital Improvements Element is designed to evaluate the need for additional public facilities based on the uses indicated on the Future Land Use Map and levels of service outlined in this Plan. The CIE must determine the cost of needed improvements which are the responsibility of the City, determine the ability to finance the necessary improvements, and adopt local policies to guide the timing, location, and funding of capital improvements.

The five-year Capital Improvements Program (CIP), prepared as part of the Capital Improvements Element, serves as the mechanism for implementation of the Capital Improvements Element. The Capital Improvements Program identifies the estimated cost of capital expenditures that will be required within the first five years after Plan adoption, and lists target revenue sources and is updated each year to ensure that capital needs are continually identified within a five-year timeframe.

The Capital Improvements Element is structured to satisfy the requirements of Chapter 163, Florida Statutes and Rule 9J-5, Florida Administrative Code. Following an introduction, existing conditions are outlined, issues and opportunities then are examined, and finally goal, objective and policy statements are given. The Capital Improvements Element has three appendices. Appendix IX-One is a compilation of tables that comprises the City's Five-Year Capital Improvements Program and which is updated annually. Appendix Table IX-One(B)(2) addresses developer-funded significant transportation projects as agreed to with the City. Appendix IX-Two addresses roadway capacity improvements as programmed by the City, County, and State. Appendix IX-Three, found in the Technical Support Document, contains a variety of historical statistical data related to the City's budget.

SUMMARY OF FINDINGS

Projecting capital needs required to support proposed future land use is based upon analyses presented in other elements of this Comprehensive Plan. This element documents the revenue currently available or expected to be available to fund these capital needs. The resulting inventory and analysis serves as the foundation for preparation of the five-year Capital Improvements Program.

NEEDED CAPITAL IMPROVEMENTS PROJECTS

The identified capital needs for various comprehensive plan elements with level of service and capital expenditure requirements are indicated below. All projects needed to correct existing deficiencies and meet future needs for the next five fiscal years are included in the Capital Improvements Program.

The tables in Appendix IX-One present current needs as outlined in the City's most recently updated and adopted five year Capital Improvements Program (CIP). Appendix IX-Two presents the next five years of road-related projects in City, County, or State CIPs and as found in the Adopted *Long-Range Transportation Plan*. The CIP for the City of Lakeland is updated and changed every year as the new City budget is approved by October 1. The numbers for any specific line item for a facility type may be shifted to future years or may be increased or decreased. In addition, funding for some line items are sometimes combined into a new line item and therefore have a new description. Thus, due to the budgeting process, one year's CIP is not necessarily comparable and traceable over time to a future year CIP.

Some capital projects involve a combination of improvements related to maintenance of a facility and capacity or performance related improvements to the facility. The reason improvements or maintenance activities are needed may be either to address existing deficiencies (such as a failed drainage way) or to address anticipated growth (such as sewer plant capacities), while others might combine replacement and enhancement by starting out as addressing a deficiency and resulting in an actual upgrade in service due to the type of the new part or replacement facility.

In 2001, the City made several changes to its annual capital budget. The Public Improvement Fund, which historically funds roads, sidewalks, and drainage projects, had Fire and The Airside Center added, and separated out funds for drainage, lakes, and the City's Community Redevelopment Agency (CRA) budget. In 2000, the City Commission approved the collection of a Stormwater Utility Fee, and drainage as well as lake projects were moved to a "Stormwater Utility Fund." In 2001, the City Commission became the CRA due to adding two new areas to the existing downtown redevelopment area; these added areas included the primarily commercial Dixieland area and the "Midtown" area (from the In-Town Bypass north to I-4).

Lakeland Community Redevelopment Agency

The Lakeland Community Redevelopment Agency is a quasi-governmental agency with revenues from tax increment financing and other sources, including the Public Improvement Fund. Tables IX-One(A)(1-3) outline the revenues and expenditures for these funds; the City has three existing CRA funds, one for the central or core downtown, one for what is known as the Dixieland area south of the core downtown, and one north of the In-Town Bypass to I-4 known as "Mid-Town" CRA.

Transportation Facilities

Existing levels of service on the major road network were based on 2000 traffic counts using a methodology from the 1985 Highway Capacity Manual and the Florida Department of Transportation. As discussed in the Transportation Element, approximately 310 directional roadway links were analyzed on the major road network. As of 2000, 16 were below minimum LOS standards. Of the roads operating below traditional roadway standards (i.e. at LOS E and F), 5 were on the State highway system, 8 were on the County road system, and 3 were the responsibility of the City; however, some of these segments met multimodal standards. Expenditures for transportation facilities, over the next five fiscal years, under the CIP, are shown in Table IX-One(B)(1) [Transportation Fund] in Appendix IX-One. The Transportation Fund is primarily supported by local option gas taxes and transportation impact fees.

Table IX-One(B)(2) [Developer-Funded Transportation Projects] has been added to the CIP to itemize those transportation projects that are to be developer-funded, as required in adopted Development Agreements, Development Orders, and other binding plans. The funding amounts in Table IX-One(B)(1) and Table IX-One(B)(2) may be subject to adjustments and changes depending upon the stage of completion. Costs may change as projects proceed to engineering level details, as right-of-way is completed, and as adjustments are made for the changing costs of material and/or labor for projects not yet out for bid.

Aviation Facilities

Table IX-One(C) [Lakeland Linder Regional Airport] in Appendix IX-One outlines the project phasing, costs, and anticipated revenue source for all aviation-related projects considered for funding in the next five fiscal years. This table also includes capital expenditures and revenues associated with the City's "Airside Center," located within the airport complex, which is owned by the City and leased to private businesses. The Airside Center fund was included in the Lakeland Linder Regional Airport Fund in FY 2004.

Parking System

Table IX-One(D) [Parking System Fund] in Appendix IX-One outlines the revenues and expenditures primarily related to the City-owned parking garages.

Potable Water

The City of Lakeland, Water Utilities Department completes an annual review of the City's water utility system and determines necessary capital projects and estimated

project costs. Table IX-One(E) [Department of Water Utilities] in Appendix IX-One outlines projects and costs identified for the next five fiscal years.

Wastewater

The City of Lakeland, Water Utilities Department completes an annual review of the City's wastewater system and determines necessary capital projects and expenditures. Table IX-One(F) [Wastewater Fund] in Appendix IX-One outlines projects and cost estimates identified in the next five fiscal years.

Solid Waste

No capital expenditures are shown for this item.

Stormwater

The City of Lakeland, Public Works Department completes an annual review of the City's stormwater system and determines necessary capital projects and estimated projected costs expenditures. Table IX-One(H) [Stormwater Fund] in Appendix IX-One outlines projects and costs identified for the next five fiscal years.

Recreation and Open Space

Implementation of the Recreation and Open Space Element of the Lakeland Comprehensive Plan will ultimately be achieved through the provision of facilities and services required to meet the public need and to maintain adopted levels of service. Table IX-One(G) [Public Improvement Fund] in Appendix IX-One includes a list of projects for recreation and highway beautification for the next five years, and the estimated cost of completion for each project. Funding information for the Cleveland Heights municipal golf course, which in past years was listed in the CIP as a separate fund, is now included in the Public Improvement Fund.

Fire Department Improvement Fund

Although the Comprehensive Plan does not generally deal with the issue of fire protection, because it is a basic public service needed for development and growth, it is included in the City's 5 year Capital Improvement Program. The revenues and expenditures for the City's fire service for the next five fiscal years are included in the Public Improvement Fund Table IX-One(G).

PUBLIC EDUCATION AND PUBLIC HEALTH SYSTEMS

Rule 9J-5.016, Florida Administrative Code, requires the identification of the geographic service area and location of major system components for the public education and public health systems within the local government's jurisdiction. The identified system components are outlined below.

Public Education

The City of Lakeland and the Lakeland Planning Area are within the jurisdiction of the Polk County School Board. A list of public secondary and elementary schools is provided below. The approximate geographic location of area schools is provided in Illustration IX-1.

Bill Duncan Opportunity Center
3333 Winter Lake Road
Lakeland, Florida

Blake Elementary
510 Hartsell Avenue
Lakeland, Florida

Boswell Elementary
2820 K'Ville Ave.
Auburndale, Florida

Carlton Palmore Elementary
3725 Cleveland Heights Blvd.
Lakeland, Florida

Cleveland Court Elementary
328 E. Edgewood Drive
Lakeland, Florida

Combee Elementary
2805 Morgan Combee Road
Lakeland, Florida

Crystal Lake Elementary
700 Galvin Drive
Lakeland, Florida

Crystal Lake Middle
2410 N. Crystal Lake Drive
Lakeland, Florida

Dixieland Elementary
416 W. Ariana Street
Lakeland, Florida

Doris Sanders Learning Center
1201 Enchanted Drive
Lakeland, Florida

Dr. N. E. Roberts Elementary
6600 Green Road
Lakeland, Florida

Edgar Padgett Elementary
110 Leelon Road
Lakeland, Florida

Foundation Charter School
1325 George Jenkins Blvd.
Lakeland, Florida

George Jenkins High School
6000 Lakeland Highlands Road
Lakeland, Florida

Griffin Elementary
3315 Kathleen Road
Lakeland, Florida

Harrison Arts Center
750 Hollingsworth Road
Lakeland, Florida

Highland City Elementary
5355 9th Street SE
Highland City, Florida

Highlands Grove Elementary
4510 Lakeland Highlands Road
Lakeland, Florida

James Sikes Elementary
2727 Shepherd Road
Lakeland, Florida

Jesse Keen Elementary
815 Plateau Avenue
Lakeland, Florida

Kathleen Elementary
3515 Sheretz Road
Lakeland, Florida

Kathleen Middle
3627 Kathleen Pines
Lakeland, Florida

Kathleen Senior High
2600 Crutchfield Road
Lakeland, Florida

Lake Gibson Middle
6901 N. Socrum Loop Road
Lakeland, Florida

Lake Gibson Senior High
7007 N. Socrum Loop Road
Lakeland, Florida

Lakeland Highlands Middle
740 Lake Miriam Drive
Lakeland, Florida

Lakeland Montessori Schoolhouse –
Charter
837 E. Parker Street
Lakeland, Florida

Lakeland Senior High
726 Hollingsworth Road
Lakeland, Florida

Lawton Chiles Middle Academy
400 N. Florida Avenue
Lakeland, Florida

Lena Vista Elementary
208 S. Berkley Road
Auburndale, Florida

Life Skills Center – Charter
407 E. Memorial Blvd.
Lakeland, Florida

Lincoln Avenue Academy
1330 N. Lincoln Avenue
Lakeland, Florida

McKeel Academy of Applied Tech.
1810 W. Parker Street
Lakeland, Florida

McKeel Elementary – Charter
411 N. Florida Ave.
Lakeland, Florida

Medulla Elementary
850 School House Road
Lakeland, Florida

North Lakeland Elementary
410 Robson St.
Lakeland, Florida

Oscar J. Pope Elementary
2730 Maine Ave.
Eaton Park, Florida

PCC Collegiate High School – Charter
3425 Winter Lake Road
Lakeland, Florida

Philip O'Brien Elementary
1225 E. Lime Street
Lakeland, Florida

R. Bruce Wagner Elementary
5500 Yates Road
Lakeland, Florida

R. Clem Churchwell Elementary
8201 Park Byrd Road
Lakeland, Florida

Rochelle School of the Arts
1501 Martin Luther King, Jr. Ave.
Lakeland, Florida

Scott Lake Elementary
1140 State Road 540-A
Lakeland, Florida

Sleepy Hill Elementary
2285 Sleepy Hill Road
Lakeland, Florida

Sleepy Hill Middle
2215 Sleepy Hill Rd.
Lakeland, Florida

Socrum Elementary
9400 Old Dade City Road
Lakeland, Florida

South McKeel Elementary Academy –
Charter
2222 Edgewood Drive South
Lakeland, Florida

Southwest Elementary
2650 Southwest Avenue
Lakeland, Florida

Southwest Middle
2815 S. Eden Parkway
Lakeland, Florida

Teen Parent – Dwight Smith Center
910 Lowry Avenue
Lakeland, Florida

Tenoroc High
4905 Saddle Creek Road
Lakeland, Florida

Traviss Technical Center
3225 Winter Lake Road
Lakeland, Florida

Valleyview Elementary
2900 E. State Road 540-A
Lakeland, Florida

Wendell Watson Elementary
6800 Walt Williams Road
Lakeland, Florida

West Area Adult & Community School
604 S. Central Avenue
Lakeland, Florida

Winston Elementary
3415 Swindell Road
Lakeland, Florida

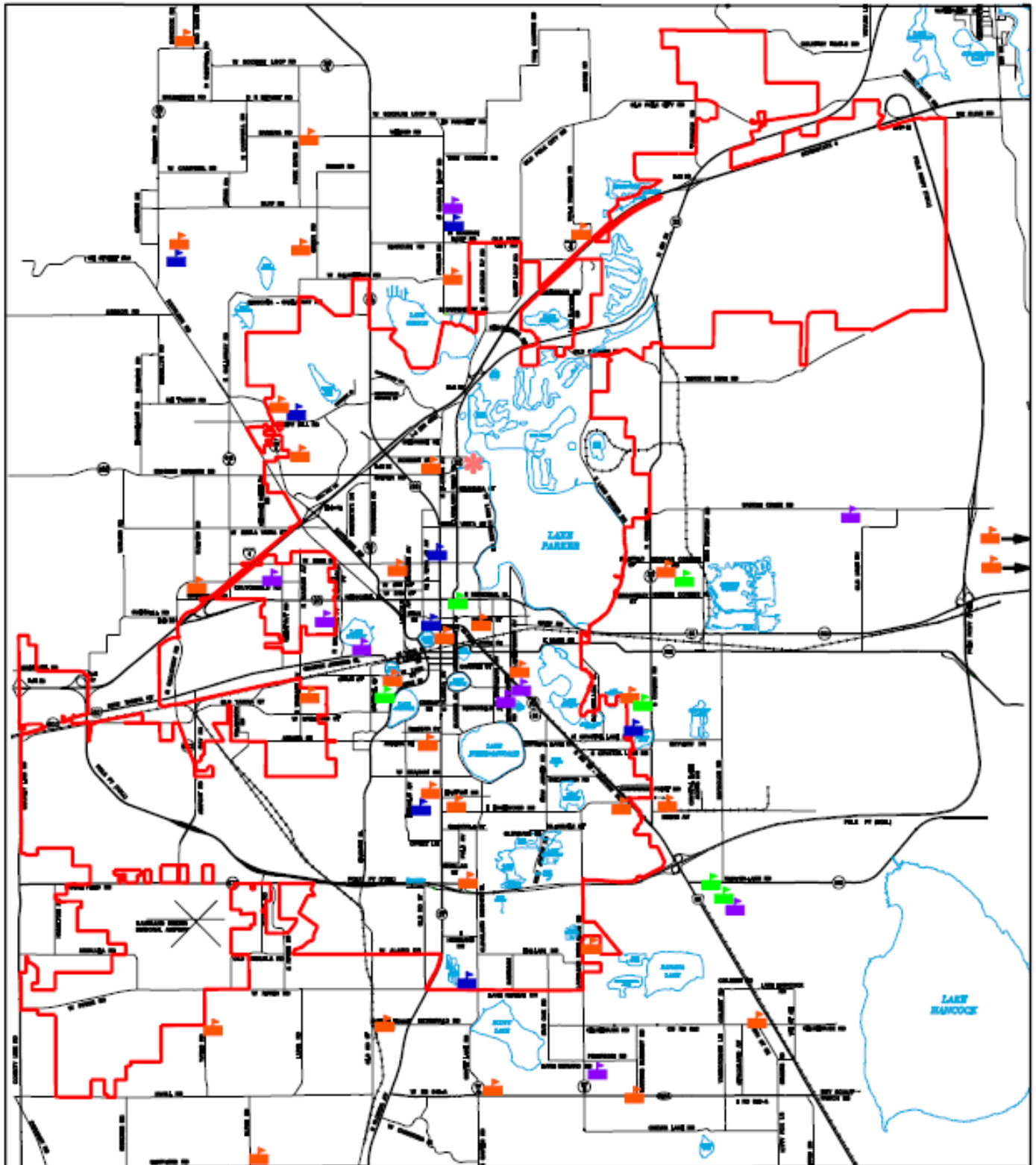
The 56 schools listed above are found in the Lakeland Planning Area. This is an increase of 23 schools over the 33 listed in the 1991 Adopted Comprehensive Plan. The increase is due to several factors:

- the addition of adult schools, such as Travis Technical School, to the list;
- rapid residential growth in the Lakeland Planning Area;
- the creation of charter schools.





Public Health


The City of Lakeland and the Lakeland Planning Area are served by the Polk County Public Health Unit, a division of the State of Florida, Department of Children and Family Services. Local services include a public health clinic and a Women, Infants, and Children (WIC) Program site. These facilities (shown on Illustration IX-1) are located at 3241 Lakeland Hills Blvd. and 1291 Ariana Avenue in Lakeland, Florida and serve the City and surrounding planning area.

ILLUSTRATION IX-1 SCHOOLS & PUBLIC HEALTH FACILITIES



Source: Community Development Department, 2008

-  Elementary School
-  Middle School
-  High School
-  Special School

-  Public Health Facility
-  Corporate Limits

Adopted 11/17/2008

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Fiscal Impact of Proposed Public Education and Public Health Facilities

Public health facilities to be built or expanded within the planning timeframe will have no substantial fiscal or physical impact on the provision of infrastructure. The School Board is planning several new public schools within the Lakeland Planning Area by about 2010. Each facility located within the City or a wastewater agreement area will be evaluated for consistency with the City's Future Land Use Element, including the impact to public infrastructure (roads, water, solid waste, wastewater, and drainage).

EXISTING REVENUE SOURCES

Provision of identified capital improvements is contingent upon the ability of local governments to pay for those needs. Traditionally, localities have had three major choices in securing funds for capital improvements financing:

1. Federal and State grants;
2. Long-term borrowing; and
3. Other Self-financed sources.

The City of Lakeland generates revenue from a number of sources. The following revenue sources are used for the purpose of financing capital improvements:

Gas Tax Revenue: Lakeland is no longer using a broad range of utility tax revenues (such as taxes on communications, propane, electric, water, natural gas, and fuel oil sold within the City limits of Lakeland) for capital improvements. The gas tax is still used for capital improvement costs and includes the City's share of the optional gas tax on motor fuel that is levied by Polk County. Interest earned on these funds prior to disbursement are also included in this category.

The gas tax money is restricted for use on certain transportation related expenditures. A portion of those funds have historically been used to subsidize the operating expenditures of the general fund and the parking fund.

Hospital Lease Revenues: Hospital lease revenues consist of the proceeds from a 40 year lease agreement with a 501(c)(3) non-profit corporation that was formed to operate the Lakeland Regional Medical Center. Those facilities are owned by the City of Lakeland and are leased to this corporation in exchange for lease payment. The annual amount payable to the City is 2.25% of net revenues. The City Commission has expressed its desire to limit expenditure of these funds primarily to capital projects and projects that promote the arts.

State Revenue Sharing Fund: No longer available for capital improvements since 1995.

General Fund Revenues: General fund revenues consist primarily of property tax revenues, utility tax revenues, charges related to parks, recreation, or public safety, and certain transfers from other operating funds of the City. Expenditures for capital outlay from this fund generally average less than 1% of the total budget of that fund.

County Fire Contract: County fire contract fees are paid to the City of Lakeland by Polk County to provide fire protection to certain unincorporated areas that are contiguous to the City limits. Polk County has determined that it is not economically feasible to provide service to certain areas using their own resources due to the small geographic areas involved. As the City annexes property the size of these areas diminish; therefore, the long-term reliability of this revenue source is not strong. A portion of these revenues is used to finance maintenance of fire department facilities as well as to subsidize a small portion of the operating costs incurred within the general fund.

Wastewater Revenues: Wastewater revenues consist of the monthly billings issued to users of the system to defray the cost of providing wastewater service. A small percentage of these revenues is used to subsidize the general fund budget.

Potable Water Revenues: Potable water revenues consist of the monthly billings issued to users of the system to defray the cost of providing water service.

Refuse Revenues: Refuse revenues consist of the monthly billings issued to users of the system to defray the cost of providing refuse collection and disposal service.

Airport Operating Revenues: Airport operating revenues consist of the proceeds from land and building leases as well as commissions on sales of aviation fuel.

Internal Service Billings: Internal service billings are billings made by the City's Motor Pool and the Central Stores Warehouses to offset the costs associated with operating the City's fleet of vehicles and the purchase of operating supplies from the central warehouse.

Federal and State Grants: The City receives grants from the Federal Aviation Administration (FAA) and the Florida Department of Transportation (FDOT) to finance improvements to the Lakeland Linder Regional Airport. The City also receives an annual entitlement from the U.S. Department of Housing and Urban Development (HUD) to operate a low income, owner-occupied housing rehabilitation program. Other grants are also received on an irregular or sporadic basis as projects qualify, including historic preservation grants.

Impact Fees: Impact fees are charges levied against new construction or changes in use of residential, commercial, industrial and institutional facilities to help defray the capital cost of providing municipal services required by those new facilities or uses.

Bond Proceeds: Bond proceeds, after deducting financing costs associated with marketing, form short-term and long-term debt issued in the name of the City of Lakeland.

Relatively small issues will have maturities of 5 to 10 years. Larger projects, mostly those that involve the construction of revenue-producing facilities such as power plants and wastewater treatment plants, are financed over a 30 year term.

Internal Loans: The City has established an internal loan fund which contains monies used to finance capital projects when the dollar value does not justify a formal, external debt issuance.

The City of Lakeland recognizes the changing nature of capital improvements financing. As a result, the City is continually exploring new and innovative ways to answer the capital needs of a growing community.

LOCAL PRACTICES GUIDING TIMING AND LOCATION OR EXTENSION OF PUBLIC FACILITIES

The City of Lakeland identifies capital needs annually during the citywide budget process. Projects are outlined which will be included in the five-year Capital Improvements Program. The consolidated proposed Capital Improvements budget is then included as part of the City's Proposed Annual Budget and provides the City Commission with a long-range view of the City's ability to finance the acquisition, construction, improvement, or expansion of public facilities and equipment expected over the next five years. The purpose of the Capital Improvements Program and overall Citywide Preliminary Budget is not to generate a "wish list" of possible City facilities. Rather, it is used as a tool for balancing the need for facilities that are considered critical to the smooth operation of the City against the limited resources that are available to finance capital expansion. Accordingly, the Capital Improvements Program includes only those projects which can be realistically paid for with the funds that will be available over the next five years. The inclusion of non-essential projects in the Capital Improvements Program is discouraged because it can jeopardize the City's ability to approve projects that are essential.

A capital improvement is a major addition to the City's inventory of assets. For purposes of this plan, a capital improvement involves expenditures for an asset which has a cost of \$25,000 or more and has a useful life of five years or more. This generally involves such projects as the construction, purchase, or major renovation of land, buildings, utility facilities, streets or other physical structures. It can also include major equipment items not permanently attached to a public facility.

FISCAL IMPLICATIONS OF EXISTING AND FUTURE CAPITAL IMPROVEMENTS NEEDS

Needed projects, funding sources, and amounts for each project are found in Tables IX-One(A-F) in Appendix IX-One.

The cost estimates indicated are based on projects outlined by the individual department heads during the budget process. The costs are primarily based on historical costs and

examination of the cost of similar projects. A detailed description which includes the cost breakdown and phasing or project completion schedule is identified for each project during the annual budget preparation and update of the Capital Improvements Program.

USE OF CAPITAL IMPROVEMENTS TIMING AND LOCATION TO SUPPORT EFFICIENT LAND DEVELOPMENT

Development of a comprehensive land use plan in conjunction with the development of a detailed five-year Capital Improvements Program gives the City of Lakeland the opportunity to ensure that efficient land development is supported by the timing and location of capital improvements necessary to serve anticipated development. The Capital Improvements Program focuses on meeting needs and trends necessary to implement the desired land use pattern and maintain adopted levels of service. It serves as a development guidance tool and is intended to guide the need for services, not just demand. The Capital Improvements Program becomes, in essence, the primary tool to shape the conditions conducive to achieving the desired land use pattern.

ABILITY TO FINANCE CAPITAL IMPROVEMENTS

The provision of necessary public facilities and services is contingent upon the ability of the City to pay for or finance what is required. An assessment of this ability can be achieved by comparing the forecast of revenues and forecast of expenditures. Table IX-1 outlines **all** anticipated revenue for the next five years, encompassing revenue from all sources, and **all** anticipated expenditures of the City of Lakeland, including operating, capital and debt capacity. Tables IX-1 through IX-4 present projected City revenues and debt levels as a brief snapshot of City budgetary health. However, these tables do focus on the level of service related budgets for capital projects versus operational costs, within the City's overall general budget. The details of the City's 5 year Capital Improvement Program are included in Appendix IX-One to this Element. State law also requires the City to adopt (by reference) the 5 year capital works program for county schools and for roads, i.e., the Polk County School Board 5 Year Work Program, and the FDOT Work Program, both of which are updated annually by their respective agencies. CIE Policies 2D, 2E and 2F address these state requirements. The City's Appendix IX-Two, summarizes the committed transportation projects in the District One FDOT Work Program and in the Transportation Engineering portion of the Polk County Adopted 5 Year Capital Improvement Program. As an added resource, citizens may wish to view the details of CIPs of related agencies, available on the internet.

**TABLE IX-1
BUDGET SUMMARY, CITY OF LAKELAND
ACTUAL AND ESTIMATED BUDGETS**

Proposed Millage Per \$1,000 3.6534	2009/10 Estimate	2010/11 Estimate	2011/12 Estimate	2012/13 Estimate	2013/14 Estimate
CASH BALANCE BROUGHT FORWARD	7,704,872	7,858,969	8,016,149	8,176,472	8,340,001
ESTIMATED REVENUES					
Taxes					
Ad Valorem Taxes	19,140,000	19,522,800	19,913,256	20,311,521	20,717,752
Sales and Use Taxes	20,657,293	21,070,439	21,491,848	21,921,685	22,360,118
Licenses and Permits	2,719,736	2,774,131	2,829,613	2,886,206	2,943,930
Intergovernmental Revenues	19,040,335	19,421,142	19,809,565	20,205,756	20,609,871
Charges for Services	432,874,541	441,532,032	450,362,672	459,369,926	468,557,324
Fines & Forfeits	1,008,762	1,028,937	1,049,516	1,070,506	1,091,916
Miscellaneous Revenue	38,684,269	39,457,954	40,247,113	41,052,056	41,873,097
TOTAL SOURCES	534,124,936	544,807,435	555,703,583	566,817,655	578,154,008
Transfers In	72,325,731	73,772,246	75,247,691	76,752,644	78,287,697
Fund Balances/Reserves	8,078,081	8,239,643	8,404,435	8,572,524	8,743,975
TOTAL REVENUES, TRANSFERS AND BALANCES	614,528,748	626,819,323	639,355,709	652,142,824	665,185,680
EXPENDITURES/EXPENSES					
General Government Services	19,575,055	19,966,556	20,365,887	20,773,205	21,188,669
Public Safety	50,003,331	51,003,398	52,023,466	53,063,935	54,125,214
Physical Environment	397,595,224	405,547,128	413,658,071	421,931,232	430,369,857
Transportation	31,452,274	32,081,319	32,722,946	33,377,405	34,044,953
Economic Environment	10,703,928	10,918,007	11,136,367	11,359,094	11,586,276
Human Services	120,723	123,137	125,600	128,112	130,674
Culture/Recreation	32,379,273	33,026,858	33,687,396	34,361,144	35,048,366
TOTAL EXPENDITURES	541,829,808	552,666,404	563,719,732	574,994,127	586,494,009
Transfers Out	72,325,731	73,772,246	75,247,691	76,752,644	78,287,697
Fund Balances/Reserves	373,209	380,673	388,287	396,052	403,973
TOTAL APPROPRIATED EXPENDITURES & RESERVES	614,528,748	626,819,323	639,355,709	652,142,824	665,185,680

Source: City of Lakeland, Finance Department, 2009.

Table IX-2 outlines revenues available to finance all capital improvements including that portion of the City's five-year Capital Improvements Program relating to Transportation, Aviation, Sanitary Sewer, Potable Water, Drainage, Solid Waste, and Recreation. The costs are based on the proposed projects presented by the various department heads for inclusion in the five-year Capital Improvements Program. The selected projects, expenditures, and funding sources appear in the adopted Capital Improvements Program.

**TABLE IX-2
FORECASTED REVENUES AVAILABLE FOR CAPITAL IMPROVEMENTS**

Revenue Fund:	2010	2011	2012	2013	2014
Public Improvements	15,490,043	14,053,018	13,880,161	15,637,347	14,506,503
Airport	816,871	1,005,441	1,756,551	503,951	496,615
Wastewater	5,228,067	6,255,667	5,115,667	5,595,667	5,475,818
Stormwater	4,723,296	4,602,885	4,524,134	4,791,061	4,723,684
Transportation	21,093,680	8,267,796	6,759,023	8,517,162	6,983,036
Parking	386,933	98,933	228,933	56,752	12,000
Water	5,169,072	6,406,792	3,947,887	3,376,777	3,395,727
LCRA	5,868,734	6,781,995	5,526,025	4,803,766	6,152,832
Total:	58,776,696	47,472,527	41,738,381	43,282,483	41,746,215

Source: City of Lakeland, Finance Dept. 5 year Capital Program, 2009.

Table IX-3 outlines projected debt service obligations on outstanding bond issues for the next five years. Payments for debt service come from a variety of funding sources including, but not limited to, operating revenues, hospital lease revenues and general fund revenues.

**TABLE IX-3
CITY OF LAKELAND
PROJECTED DEBT SERVICE**

	2009/10	2010/11	2011/12	2012/13	2013/14
Public Improvement Fund	3,867,990	4,194,020	4,199,767	4,149,760	4,042,831
General Fund	-	-	-	-	-
LCRA Fund	805,000	819,311	819,311	819,311	819,311
Transportation Fund	4,691,573	4,131,390	2,541,573	2,791,573	2,341,573
Airport	1,072,823	1,140,312	1,134,287	1,133,018	1,097,983
Internal Loan Fund	4,801,495	4,784,040	4,793,056	4,782,294	9,601,117
Water/Wastewater Fund	9,526,198	10,921,497	10,907,501	10,853,516	10,865,554
Parking System Fund	88,933	88,933	88,933	44,752	-
Lakeland Center Fund	1,400,776	1,406,813	1,388,838	1,382,400	1,364,080
Solid Waste Management Fund	-	-	-	-	-
Cleveland Heights Golf Course	300,209	270,295	255,502	247,448	230,987
Electric Utility Fund	47,937,813	46,778,505	47,139,160	47,174,895	42,393,630
Total	74,492,810	74,535,116	73,267,928	73,378,967	72,757,066

Source: City of Lakeland, Finance Department, 2009.

In addition to existing bond issues, the City of Lakeland may seek future bonding to finance large capital projects or a series of smaller projects. The City has an excellent repayment history.

The City of Lakeland, as of January 1, 1998, had a gross total property value of \$2,225,130,518. Lakeland was able to maintain a low 2.7 millage rate from 1985 to 1989. The millage rate increased to 2.995 and remained there until 2004 when it increased to its current level of 3.545. Table IX-4 outlines projected taxable value for millage assessment and projected ad valorem revenues.

**TABLE IX-4
CITY OF LAKELAND
FUTURE PROJECTION OF GENERAL FUND PROPERTY ASSESSED VALUATIONS AND PROPERTY TAX RATES**

Fiscal Year Ending September 30	Assessed Valuation(1)	Tax Rate In Mills	Total Tax Levy	Current Tax Collections	Percent of Levy Collected	Delinquent Tax Collections	Total Tax Collections	Ratio of Total Collection to Tax Levy
2009/10	5,514,018,877	3.6538	20,147,368	19,381,554	96.20	55,000	19,436,554	96.47
2010/11	5,679,439,443	3.6538	20,751,789	19,963,001	96.20	55,000	20,018,001	96.46
2011/12	5,849,822,627	3.6538	21,374,342	20,561,891	96.20	55,000	20,616,891	96.46
2012/13	6,025,317,305	3.6538	22,015,573	21,178,748	96.20	55,000	21,233,748	96.45
2013/14	6,206,076,825	3.6538	22,676,040	21,814,110	96.20	55,000	21,869,110	96.44

1)The State of Florida, by statute, requires property appraisers to assess all property within the State at 100% of market value. Therefore, the assessed valuation and estimated actual value is the same.

Source; City of Lakeland, Finance Department, 2009.

As with all local governments in Florida, the City of Lakeland could assess up to 10 mills should the revenue become essential to the City's economic vitality. This has been unlikely, however, given the City's historic low millage rates and the ability to finance the majority of the City's needs from other revenue sources, including dividends from the City-owned electric, water, wastewater and solid waste utilities. It must be noted, however, that legislative action imposed on local governments by the Florida legislature in the summer of 2007 imposed certain restrictions on efforts to increase property tax millage rates. Per those rules, increases in the assessed value of non-homesteaded properties cannot exceed 10% in any given tax year, excluding school taxes. By simple majority vote, local governments are limited to assessing the roll-back rate (which equal's a rate that amounts to the same amount of taxes collected the prior year) plus an adjustment equal to the increase in state-wide per capita income as determined by the State. With a super-majority vote (2/3rds) of the governing council (City Commission), the locality can increase that rate by up to 10%. Any millage rate in excess of that rate, up to the cap of 10 mills, can be adopted only by unanimous vote of the City Commission or by referendum of the voters.

The City of Lakeland also has large operating costs for the various departments providing services to City residents. The major utility services -- electric; water; solid waste; and wastewater -- are supported by charges for services. Operating costs for other departments are derived from a variety of revenue sources available to the City.

ISSUES AND OPPORTUNITIES

An effective capital improvements programming process can provide numerous benefits to local governments. Specifically, a Capital Improvements Program can ensure that plans for community services are carried out; can allow improvement proposals to be tested against a set of policies; can better schedule public improvements that require more than one year to construct; can provide an opportunity, assuming funds are available, to purchase land before costs go up; and, can provide an opportunity for long-range financial planning and management.

There are several key issues surrounding the development of a successful Capital Improvements Program for the City of Lakeland. The primary issues addressed in this Capital Improvements Element are:

1. The development of a Capital Improvements Program which ensures that public facilities and services are available concurrent with the impacts of development;
2. Coordination and consistency between the Capital Improvements Element and the other elements of the plan having level of service and capital expenditure requirements; and,
3. Development of a comprehensive plan and five-year capital improvements budget which demonstrates financial feasibility.

In addition, the issue of the complexity of addressing transportation capacity projects is addressed.

CONCURRENCY REQUIREMENT

The Lakeland Comprehensive Plan, as with all plans developed under the 1985 Growth Management Act, must address the issue of concurrency. At a minimum, concurrency requires that all public facilities and services needed to support new development must be in place when the development occurs or must be provided concurrent with the development. Lakeland adopted a concurrency management ordinance in March of 1991 and has administered that program since. This ordinance is expected to be revised in late 2006 due to the statutory mandate for local governments to adopt proportionate fair share program provisions.

As a result of concurrency requirements, the Capital Improvements Element and Capital Improvements Program are the key to successful implementation of the Lakeland Comprehensive Plan. The Capital Improvements Element sets forth the goal, objective and policy statements which will guide the local decision making process. The Capital Improvements Program outlines the five-year capital projects plan, showing capital expenditures and anticipated funding sources.

In addition to the Capital Improvements Element and Capital Improvements Program, the City of Lakeland has a Concurrency Management System. The adopted management system ensures that locally adopted level of service standards for roadways, public schools, potable water, sanitary sewer, solid waste, drainage, recreation, and mass transit are maintained. The City of Lakeland will issue no new development orders (i.e. permits, plats, site plan approvals) unless concurrency is certified. The specific administrative procedure necessary to implement this requirement is outlined in the Future Land Use Element.

INTERNAL CONSISTENCY

In order to successfully implement the Lakeland Comprehensive Plan, the Capital Improvements Element and Capital Improvements Program must be coordinated and consistent with the other elements of the plan which have level of service or capital expenditure requirements.

Projects identified within the various comprehensive plan elements are outlined within the Capital Improvements Element and, where feasible, funded in the Capital Improvements Program. In addition, project and funding decisions outlined in the Capital Improvements Program are designed to support the Future Land Use Map.

FINANCIAL FEASIBILITY

It is through development of the Capital Improvements Element and Capital Improvements Program that local governments must demonstrate the financial feasibility of the proposed comprehensive plan. Within the Capital Improvements Program, the City of Lakeland has outlined a schedule of capital improvements for which the City has fiscal responsibility for funding the next five years. The projects are ranked according to those needed to correct existing deficiencies, those needed to accommodate desired growth and maintain adopted level of service standards, and those which represent logical public service and facility extension into the defined Urban Development Area.

After projects were identified and prioritized, the cost and funding sources were identified. In most cases the funding sources are definite. In some instances, however, the funding of a project may rely on some type of local referendum. In those cases, several alternatives are presented. For example, if attempts at bonding should fail, an increase in ad valorem taxes might be pursued. The primary emphasis is ensuring that adequate revenues exist to fund capital projects required within the next five years, to assist in plan implementation.

ROADWAY LEVEL OF SERVICE

The five-year Capital Improvements Program is the mechanism by which the City of Lakeland will efficiently stage the timing, location, projected cost, and revenue sources derived from the other comprehensive plan elements, in support of the Future Land Use Element. The Capital Improvements Program is also used to document the financial feasibility of the Lakeland Comprehensive Plan.

Given the level of service standards detailed in Policy 2A of the Capital Improvements Element, adequate revenues are available to correct deficiencies, replace worn-out facilities and accommodate growth projected in the Future Land Use Element for all services except roadways. Transportation system deficiencies are a result of many years of benign neglect through lack of adequate funding of the State, County and City road system. In January 1988, the City of Lakeland became proactive on roadway funding implementing impact fees for State, County arterial and City collector road improvements.

It is important to note that transportation capacity projects are very time intensive to construct. Four steps are required for each major improvement: project development and environmental study (PD&E), preliminary engineering (PE) or design, right-of-way acquisition, and construction.

The listing of needed capacity projects in the Polk County Transportation Planning Organization's (TPO) Long Range Transportation Plan is the first step in the formal FDOT-coordinated road planning and construction process. Since many of the existing deficiencies occurred over many years, it will also take many years to correct these, even with adequate funding in place.

While road planning and construction activities are underway, the City has used the Comprehensive Plan, especially the Future Land Use Map and Element, to improve the future demand on the transportation system. Levels of service are tied to transit and sidewalk networks, most found in the Central City area where higher densities are encouraged. Increased densities and adequate funding are expected to improve transit ridership as well as non-motorized mode split. Transit ridership has experienced a steady increase over the last planning period and, with implementation of existing and updated Comprehensive Plan policies in the Transportation and Future Land Use Elements, this increase may accelerate.

The City has aggressively pursued construction of a downtown streetscape program which improves pedestrian access in the downtown area. Also, as identified in the Transportation and Recreation and Open Space Elements, bicycle planning for commuting as well as recreation is being incorporated in numerous City projects and in the Lake-to-Lake Greenway Connector plan.

Although the City has no authority over the budgets of the Polk County Board of County Commissioners (BOCC) or the Florida Department of Transportation (FDOT), these funding sources are shown in Appendix IX-Two outlining the transportation capacity projects over a five-year period. Projects and funding sources are likewise shown in the FDOT's adopted Five-Year Work Program and included in the TPO's Transportation Improvement Program (TIP).

GOAL, OBJECTIVES AND POLICIES

The following goal, objective and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to capital improvements planning and programming. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the attainable and measurable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective and policy statements in the Capital Improvements Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan and with the goals and policies of the Central Florida Strategic Regional Policy Plan.

GOAL: The City of Lakeland will take actions necessary to adequately provide needed public facilities and services concurrent with the impacts of development. This will be done in a manner which protects investments in and maximizes the use of existing facilities, while promoting orderly, compact urban growth.

Objective 1: Capital improvements will be provided to correct existing deficiencies, to accommodate desired future growth, and to replace worn out or obsolete facilities.

Policy 1A: The City of Lakeland will include all projects of \$25,000 or larger identified in the other elements of this plan as necessary to maintain adopted levels of service or correct existing deficiencies in the five-year Capital Improvements Program.

Policy 1B: The City of Lakeland will prioritize all proposed capital expenditures according to the following guidelines:

Priority 1: Correction of an existing deficiency.

Priority 2: Accommodate desired growth or maintain adopted levels of service.

Priority 3: Replace worn out and obsolete facilities or a logical extension of facilities and services within the designated Urban Development Area.

Policy 1C: The City of Lakeland will provide, or require others to provide, needed capital expenditures for the replacement or renewal of obsolete or worn out capital facilities.

Policy 1D: The City of Lakeland shall demonstrate that the CIP is financially feasible by adopting into the CIE a 5-year schedule of capital improvements which includes publicly funded projects, and which may include privately funded projects for

which the local government has no fiscal responsibility, necessary to ensure that adopted level-of-service standards are achieved and maintained. Financial feasibility of the 5-year schedule of capital improvements (Table CI-1) shall mean that sufficient revenues are currently available, or will be available from committed funding sources, for the first three (3) years, or will be available from committed or planned funding sources for years four (4) and five (5), which are adequate to fund the projected costs of the capital improvements listed in the CIP. Committed and/or planned revenue sources for financing programmed capital improvements may include, but are not limited to, ad valorem taxes, bonds, state and federal funds, other tax revenues, impact fees, and developer contributions. Exceptions to the definition of a balanced, financially feasible 5-year schedule of capital improvements are as follows:

- a. If the CIP relies on planned revenue sources in the 5-year schedule that require referenda or other actions to secure the planned revenue source, the CIE must, in the event the referenda are not passed or actions do not secure the planned revenue source, identify other existing revenue sources that will be used to fund the capital projects or otherwise amend the CIE to ensure financial feasibility;
- b. The requirement that level-of-service standards be achieved and maintained shall not apply if the 5-year schedule of capital improvements reflects developer contributions pursuant to a proportionate fair-share agreement; and
- c. The requirement that the 5-year schedule of capital improvements be financially feasible shall not apply if the 5-year schedule of capital improvements reflects developer contributions pursuant to a proportionate fair-share agreement and additional contributions, payments or funding sources are reasonably anticipated during a period not to exceed 10 years to fully mitigate impacts on the transportation facilities.

Policy 1E: The City's 5-year schedule of capital improvements will reflect all projects in the corresponding five (5) years of the Water Supply Facilities Work Plan that make an improvement and/or increase in capacity of potable water facilities.

Objective 2: Land use decisions and other decisions regarding the issuance of development orders and permits will be based on the development requirements of this plan, land development regulations, and availability of public facilities and services necessary to support such development while maintaining adopted level of service standards.

Policy 2A: All new roadways constructed within the City will be designed to accommodate a minimum of Level of Service D and once constructed will not be allowed to fall below Level of Service D. Upon plan adoption, the City of Lakeland will use the following level of service standards in reviewing the impacts of new development and redevelopment upon facilities:

Base Highway Level-of-Service (LOS) Standard:

Area	Minimum Standard (Peak Hour/Dir)
Urban Transit Service Area	LOS "D"

Multi-Modal Transportation Districts:

The Multi-Modal Transportation Districts, located within the Urban Transit Service Area, coincide with the service area of the identified fixed-route transit service.

As part of its next major update to the Transportation Element, the City will, in coordination with the Polk TPO, refine its multi-modal LOS standards as shown below to better define when and what to require in regard to various modal improvements. At that time the City and TPO will also explore how best to protect the integrity of key intersections within M3 District corridors.

FIHS road segments shall be maintained at a minimum level of service of "C", or as established by FDOT rules (refer to Appendix III-Three in the Technical Support Document for FIHS standards). Facility improvements funded by the Transportation Regional Incentive Program are also restricted to State LOS standards.

Approaches for intersections are normally expected to function at the same minimum LOS standard for the road link of that approach. Details of intersection standards will be outlined in the City's LDRs but shall generally include mast arm traffic control apparatus as well as pedestrian crossing controls as approved by the City.

MULTI-MODAL LEVEL OF SERVICE STANDARDS

Multi-Modal District	Minimum Highway Standard	Transit	Pedestrian (<i>must be ADA compliant</i>)	Bicycle
M1	LOS "D" for average of two highest peak hours, peak direction	60 minute headway (Category II)	Sidewalk access to transit route	Bike racks on buses
M2	LOS "E" for average of two highest peak hours, peak direction	30 minute headway (Category I) with transit signage, shelters or benches	Sidewalk access generally within ¼ mile of transit routes or stops	Bike racks on buses Bicycle facilities on roadways, preferably within ½ mile of project*
M3**	Volume/Capacity ratio is ≤ 1.25 in peak hour, peak direction***	30 minute headway (Category I) with transit signage, shelters or benches	Extensive sidewalk network within ¼ mile of and direct sidewalk connection to transit stop.	Bike racks on buses Bicycle facilities on roadways preferably within ½ mile of project Bike rack at transit stop and/or project

* Bicycle facilities may mean paved shoulders on roadways and/or designated bike routes such as and including the City's Lake-to-Lake Greenway Connector, and/or multi-use pathways for pedestrian and bicycle use.

**Application of M3 Standard is conditioned upon several additional factors discussed below.

*** Volume/Capacity ratio shall be based on service volumes and adopted highway LOS standard as given in the Polk TPO's Roadway Network Database.

Application of the M3 standard is further conditioned upon the following:

- a) Project traffic shall not further degrade the operation of an existing signalized intersection. Single, non-residential re-development uses within the corridor may be allowed an exception to this criteria where other criterion are met including significantly limited passer-by traffic (i.e., limit drive-through bays) and the provision of cross or joint access as well as enhanced multi-modal access.
- b) On and/or off site multi-modal improvements shall maintain or improve mobility and/or safety within the multi-modal district. Transit related improvements must be approved by the applicable transit authority or transit director.
- c) All site plans and internal site circulation shall comply with the City's access management standards as found in Article 26 of the Lakeland Land Development Regulations.

MASS TRANSIT:

The City of Lakeland and Lakeland Area Mass Transit District establish a coordinated level of service for mass transit as per the multi-modal level of service standards found in Policy 4A above. While the City's multimodal LOSS addresses transit as it relates to roadways. However, the City of Lakeland does not control the Transit service, which is an independent district. The Polk County TPO produces a Transit Development Plan (TDP) which lists several measures of transit service, one of which is to achieve, at minimum, a ridership of 15 passengers per hour on the bus routes, with a policy to increase passenger amenities like shelters for routes that exceed this standard.

POTABLE WATER:

- a) **Quality**
Compliance with all Florida Department of Environmental Protection (FDEP) and Federal Drinking Water Standards.
- b) **Quantity**
 - System-wide water quantity will be sufficient to furnish a minimum of 150 gallons per capita per day, on an average annual basis to address both residential (domestic) and commercial water supply needs;
 - domestic service is targeted at approximately 130 gpd per capita;

- per capita consumption targets are given in Infrastructure Element Objective 1.3;
 - minimum flow pressures are also established as follows:
 - 20 psi for fire flow events
 - 30 psi for peak demand periods.
- e) All stormwater treatment and disposal facilities must meet the water quality standards established in the Florida Administrative Code. Specifically, all stormwater discharge facilities must be designed so that the receiving water body is not degraded below the minimum conditions necessary to ensure suitability for its classification. Any exemptions, exceptions or thresholds found in Chapters 17-25 or 17-40, Florida Administrative Code, are not applicable as a deviation from these locally established standards.

RECREATION AND OPEN SPACE:

- a) 5.98 acres of park/open space per 1,000 population with 50% of this acreage in active facilities such as community and neighborhood parks;
- b) A minimum of one recreation complex per 30,000 population.
- c) One community park per 25,000 residents and one neighborhood park per 8,500 residents.

PUBLIC SCHOOL FACILITIES:

Consistent with the Interlocal Agreement for Public School Facilities, the uniform, district-wide level-of service standards are established as a percent of permanent Florida Inventory of School Houses (FISH) capacity. The LOS standards are set as follows:

TIERED LEVEL OF SERVICE – SCHOOL YEAR 2008-2013					
Facility Type	Year	Year	Year	Year	Year
	2008-09	2009-10	2010-11	2011-12	2012-13
Elementary	122%	122%	115%	100%	100%
Middle	113%	113%	110%	100%	100%
High School	110%	110%	105%	100%	100%

- (a) Magnet and School of Choice: One hundred percent (100%) of enrollment quota as established by the School Board or court ordered agreements and as adjusted by the school board annually.
- (b) Other: K-8, 6th grade centers, 9th grade centers, 6-12 are at one hundred percent (100%) of permanent DOE FISH capacity.

- (c) Special: Including alternative education or special programmatic facilities will be determined by the type and use of programs for each facility
- (d) Conversion Charter Schools: The capacity is set during contract negotiations and the School Board has limited control over how many students the schools enroll. The School Board is unable to “rezone” students to a conversion charter to maximize utilization.

Note: Description of how the level of service was determined for each facility type is outlined within the comprehensive plan element which addresses each facility.

Policy 2B: The City of Lakeland will provide, or require others to provide, public facilities and services needed to support development concurrent with the impacts of such development.

Policy 2C: The City of Lakeland will coordinate proposed development or redevelopment with State and regional agencies to consider whether the proposed action will affect State agency, water management district, or school district facility plans.

Policy 2D: The City of Lakeland will adopt by reference the School District’s 5-Year Work Program, as approved annually by the School Board, that includes school capacity sufficient to meet anticipated student demands projected by the County and municipalities and based on the adopted level of service standards for public schools. The 5-year schedule of improvements ensures the level of service standards for public schools are achieved and maintained within the 5-year period. Annual updates to the schedule shall ensure levels of service standards are achieved and maintained within each year of subsequent 5-year schedule of capital improvements. Annual updates by the School Board will be adopted by reference as the City annually updates its CIE and CIP.

Policy 2E: The City of Lakeland will adopt by reference the FDOT’s 5 Year Work Program. Annual updates by the FDOT will be adopted by reference as the City annually updates its CIE and CIP.

Policy 2F: The City of Lakeland will account for de minimus project trips through the application of annual growth rates (as developed by the Polk Transportation Planning Organization) for all monitored roadway links in public or private traffic analyses conducted within the City. These growth rates shall be applied in addition to “reserved” trips tracked in the City’s Concurrency Management Database.

Objective 3: Future development will bear a proportionate cost of facility improvements necessitated by development in order to maintain adopted level of service standards. For capital improvements that will be funded by the developer, financial feasibility shall be demonstrated by being guaranteed in an enforceable development agreement or interlocal agreement, or other enforceable agreement. These development agreements and/or interlocal agreements shall be reflected in the

5-year schedule of capital improvements if the capital improvement is necessary to serve development within the 5-year schedule.

Policy 3A: The City of Lakeland will continue to implement its impact fee ordinances in order to assess new development a pro rated share of the costs required to provide public facilities and services.

Policy 3B: The City of Lakeland will continue to negotiate with private development in the provision of capital facilities to serve proposed development. Lakeland's Proportionate Fair-Share Program provides a method by which the impacts of development on transportation facilities can be mitigated by the cooperative efforts of the public and private sectors and includes a methodology for assessing proportionate fair-share mitigation options. This proportionate share program shall provide for the following:

- a. A developer may apply for approval to satisfy all transportation concurrency requirements by contributing or paying proportionate fair-share mitigation if construction or implementation for transportation facilities identified as mitigation for transportation system impacts are specifically identified for funding in the City's 5-year schedule of capital improvements program (CIP), including those portions of the CIE which reference State and County funded transportation improvements, or if the City Commission approves adding the facilities to the next annual update of the 5-year CIP;
- b. Proportionate fair-share mitigation shall be applied as a credit against impact fees to the extent that all or a portion of the proportionate fair-share mitigation is used to address the same capital infrastructure improvements contemplated by local impact fee ordinances;
- c. Mitigation for development impacts to facilities on the State Strategic Intermodal System made pursuant to an approved proportionate fair-share agreement requires the concurrence of the Florida Department of Transportation; and
- d. Nothing in the ordinance shall require the City of Lakeland to approve a development that is not otherwise qualified for approval pursuant to the City's Concurrency Management system.

Policy 3C: School facility concurrency mitigation options shall be available to address the impacts of residential developments when applicable elementary, middle, or high schools to which the development is assigned or districted by the PCSB are at maximum capacity and/or exceed adopted levels of service standards. The school concurrency mitigation options shall be incorporated into the City's ordinance for concurrency management and shall be consistent with those options identified within the Polk County Interlocal Agreement for Public School Facility Planning and Chapter 163.3180, but at a minimum include donation, construction or funding of school improvements sufficient to offset the demand created by the proposed development. School facility mitigation must be reflected in the PCSB's adopted 5 Year Program of Work, or approved as an update to same. The City's annual CIE update will include this Program of Work by reference.

Objective 4: Fiscal resources will be managed in a manner which ensures the provision of needed capital improvements for previously issued development orders as well as future development and redevelopment.

Policy 4A: The City of Lakeland will continue to spend funds to maintain existing facilities and services at adopted levels of service.

Policy 4B: The City of Lakeland will limit the maximum ratio of outstanding indebtedness for providing capital facilities and services to no greater than 15% of the property tax base.

Policy 4C: The City of Lakeland will continue to adopt a five-year capital improvements budget and annual capital budget as part of its budgeting process.

Policy 4D: The City of Lakeland will continue to secure grants and private funding, whenever available, to assist in the provision of needed capital improvements, including grants to assist in emergency preparedness and hazard mitigation efforts.

Policy 4E: The City of Lakeland will expend monies for capital improvements in accordance with the policies outlined within all elements of this plan.

MONITORING AND EVALUATION

Pursuant to Chapter 163, Florida Statutes, this element will be reviewed and updated annually to ensure required public facilities are available to maintain the adopted level of service standards. Monitoring and evaluation of the Comprehensive Plan and the Capital Improvements Element will be the responsibility of the Planning Division of the Lakeland Community Development Department. Deficiencies and recommendations will be presented to the City Administration for appropriate handling during budget updates.

This annual review will include the following considerations:

- 1) Any correction, updates, and modifications concerning cost; revenue sources; acceptance of facilities pursuant to dedications which are consistent with the element; or the date of construction of any facility enumerated in the element;
- 2) The Capital Improvements Element's continued consistency with the other elements and its support of the Future Land Use Element.

APPENDIX IX-ONE

CAPITAL IMPROVEMENTS PROGRAM

Source: City of Lakeland Annual Budgetary Process
(All City Departments, including Finance)

APPENDIX IX-TWO

**PROGRAMMED ROADWAY CAPACITY AND
INTERSECTION IMPROVEMENT PHASES**

TABLE IX-ONE(A)(1)
DOWNTOWN CRA FUND

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Tax Increment Revenues	1,483,803	1,491,000	1,506,000	1,536,000	1,567,000			
Investment Income	14,878	11,500	6,614	2,715	7,216			
Unappropriated Surplus	211,791	162,875	129,980	(89,925)	80,972			
TOTAL REVENUES	1,710,472	1,665,376	1,642,594	1,448,790	1,655,188			
EXPENSES:								
Streetscape:								
Cleaning	22,500	23,000	23,500	24,000	24,500	LCRA	-	
Debt Service:								
Downtown Streetscape Loan (Paid 2015)	125,000	125,000	125,000	125,000	125,000	LCRA	-	
Lake Mirror Park (Paid 2015)	350,000	350,000	350,000	350,000	350,000	LCRA	-	
Miscellaneous Projects:								
Container Garden - Maintenance	81,955	84,413	86,946	89,554	92,241	LCRA	-	
Debt Service - Residential Redevelopment (20 years)	680,000	680,000	680,000	480,000	680,000	LCRA	-	
Mowing	12,360	12,731	13,113	13,506	13,911	LCRA	-	
USF Polytechnic Incubator Downtown	28,787	28,787				LCRA	-	
Operating:								
Contribution to LDDA	170,000	170,000	170,000	170,000	170,000	LCRA	-	
Tax Increment Refunds	140,000	140,308	140,617	140,926	141,236	LCRA	-	
Additional Personnel	41,070	41,070	43,124	45,280	47,544	LCRA	-	
Professional Services	50,000					LCRA	-	
Annual Audit/Reporting Requirements	5,000	6,367	6,495	6,624	6,757	LCRA	-	
Other Operating Expenses	3,800	3,700	3,800	3,900	4,000	LCRA	-	
TOTAL EXPENSES	1,710,472	1,665,376	1,642,595	1,448,790	1,655,188			
UNAPPROPRIATED SURPLUS:								
Beginning Balance	595,133	383,343	220,467	90,487	180,412			
Sources/(Uses)	(211,791)	(162,875)	(129,980)	89,925	(80,972)			
Ending Balance	383,343	220,467	90,487	180,412	99,440			

TABLE IX-ONE(A)(2)
DIXIELAND CRA FUND

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Tax Increment	297,363	300,000	303,000	306,000	309,000			
Interest Income	2,000	2,900	2,100	2,000	2,000			
Loan Funds		500,000						
Unappropriated Surplus	100,986	(18,352)	28,831	3,476	23,143			
TOTAL REVENUES	400,349	784,548	333,931	311,476	334,143			
EXPENSES:								
Façade Improvement Program:								
Small Project Assistance - Façade Improvement	60,000	60,000	60,000	60,000	50,000	LCRA	-	
Design Assistance	15,000	15,000	15,000	15,000	15,000	LCRA	-	
Parking and Access Program	25,000	25,000	25,000	25,000	20,000	LCRA	-	
Landscaping Matching Grants	15,000	15,000	15,000	15,000	15,000	LCRA	-	
Corridor Improvements								
Medians and Gateway Features - Construction		500,000				LCRA	-	
Alley Improvements	200,000	75,000	50,000	25,000	25,000	LCRA	-	
Debt Service on Proposed Enhancement Loan			71,920	71,920	71,920	LCRA	-	
Miscellaneous:								
Maintenance		7,500	7,700	7,900	8,100	LCRA	-	
Operating Expenses / Professional Services	15,000	15,000	15,000	15,000	50,000	LCRA	-	
Annual Audit	1,736	1,788	1,841	1,896	1,953	LCRA	-	
Meeting Supplies	500	510	520	510	520	LCRA	-	
Subscriptions & Memberships	500	750	750	750	750	LCRA	-	
Anticipated Personnel	39,113	39,900	41,900	44,000	46,200	LCRA	-	
Enhancements	10,000	7,500	7,500	7,500	7,500	LCRA	-	
Publications and Promotions	10,000	10,000	10,000	10,000	10,000	LCRA	-	
Other Operating Expenses	8,500	11,600	11,800	12,000	12,200	LCRA	-	
TOTAL EXPENSES	400,349	784,548	333,931	311,476	334,143			
UNAPPROPRIATED SURPLUS:								
Beginning Balance	182,195	81,209	99,562	70,731	67,254			
Sources / (Uses)	(100,986)	18,352	(28,831)	(3,476)	(23,143)			
Ending Balance	81,209	99,562	70,731	67,254	44,111			

TABLE IX-ONE(A)(3)
MID-TOWN CRA FUND

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Tax Increment	3,059,773	3,090,000	3,121,000	3,152,000	3,184,000			
Interest Income	59,000	43,000	38,000	48,000	35,000			
Transfers:								
Transportation Fund (Hope VI Debt Service)	70,000	70,000						
Residential Redevelopment - Rental Income	200,000	200,000	200,000	200,000	200,000			
Unappropriated Surplus	369,140	929,072	190,500	(356,500)	744,500			
TOTAL REVENUES	3,757,913	4,332,072	3,549,500	3,043,500	4,163,500			
EXPENSES:								
Landscape/Pedestrian Enhancements								
10th St. - Providence Rd. to N. Fla. Ave.		150,000	150,000			LCRA	I	TE -Policy 6B
Providence Rd - 10th St to Alameda Dr			150,000	150,000		LCRA	I	TE -Policy 6B
Massachusetts Improvements - InTown Bypass to Memorial	100,000	500,000				LCRA	I	TE -Policy 6B
Other Pedestrian Enhancements (Sidewalks & Enhancements)	150,000	150,000	150,000	150,000	150,000	LCRA	I	TE -Policy 6B
Landscaping Maint by Other City Departments	40,000	43,000	46,000	50,000	54,000	LCRA	-	
Model Blocks:								
N. Lake Wire - land acquisition	500,000	500,000				LCRA	-	
Northwest - land acquisition			750,000	500,000		LCRA	-	
Webster Park South - land acquisition					750,000	LCRA	-	
Other Model Blocks	50,000	50,000	100,000	100,000	100,000	LCRA	-	
Residential Buffers:								
N. Lake Wire interface w/ N. Fla. Ave.	30,000					LCRA	-	
Kathleen Rd. - Memorial to I-4	100,000	50,000				LCRA	-	
Other Residential Buffering				125,000	125,000	LCRA	-	
Corridor Enhancements:								
Other Corridor Enhancements TEAM BRICK	100,000	102,000	104,000	106,000	108,000	LCRA	I	TE - Policy 5C
Land Acquisition					750,000	LCRA	I	TE - Policy 5C
Miscellaneous:								
Operating Expenses	148,470	151,000	154,000	157,000	160,000	LCRA	-	
Small Project Assistance	50,000	50,000	50,000	50,000	50,000	LCRA	-	
Owner-Occupant Acquisition and Relocation Program	200,000					LCRA	-	
Commercial Property Acquisition/Project	500,000	750,000	500,000	500,000	750,000	LCRA	-	
Transfer to General Fund / Actual Staff	196,943	193,572	203,000	213,000	224,000	LCRA	-	
Metro Lakeland Community Housing Strategy - Implementation	500,000	500,000	500,000	500,000	500,000	LCRA	-	

Level of Service code:
M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE (M, I or -)	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
Residential Redevelopment Property Management	200,000	200,000	200,000	200,000	200,000	LCRA	-	
Infill Downpayment Assistance	250,000	250,000	250,000			LCRA	-	
Infill Construction Incentive	200,000	200,000	200,000	200,000	200,000	LCRA	-	
Lake Parker Stormwater BMPs-Parker St Neighborhood		450,000				LCRA	M	IF Obj. 4.2
Ingraham Avenue Enhancements	400,000					LCRA	I	TE Policy 6C
Impact Fee Reimbursement for Affordable Housing	42,500	42,500	42,500	42,500	42,500	LCRA	-	
TOTAL EXPENSES	3,757,913	4,332,072	3,549,500	3,043,500	4,163,500			

UNAPPROPRIATED SURPLUS:

Beginning Balance	2,989,197	2,620,057	1,690,985	1,500,485	1,856,985			
Sources / (Uses)	(369,140)	(929,072)	(190,500)	356,500	(744,500)			
Ending Balance	2,620,057	1,690,985	1,500,485	1,856,985	1,112,485			

Level of Service code:

M = Maintain I = Improve - = not applicable

**TABLE IX-ONE(B)(1)
TRANSPORTATION FUND**

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Local Option Gas Tax - 6 cents	2,300,000	2,307,000	2,314,000	2,321,000	2,328,000			
Local Option Gas Tax - 5 cents	1,458,000	1,462,000	1,466,000	1,470,000	1,474,000			
State Revenue Sharing Gas Tax - 8th cent	750,000	752,000	754,000	756,000	758,000			
Local Option Gas Tax - 9th cent	462,000	463,000	464,000	465,000	466,000			
Investments & Earnings	92,461	92,623	92,785	92,946	106,409			
Special Assessments - Alleys, Streets & Sidewalks	5,000	5,000	5,000	5,000	5,000			
Impact Fees - District 1	1,087,053	2,126,871	537,053	1,987,053	537,053			
Impact Fees - District 2	325,000	325,000	325,000	625,000	625,000			
Impact Fees - District 3	540,000	540,000	540,000	640,000	640,000			
Bond Issue - East-West Connector	6,800,000							
Bond Issue - Waring Road	4,500,000							
Bond Issue- Carpenters Way	2,000,000							
FDOT Traffic Signal Maintenance Reimbursement	169,014	174,084	179,307	184,686	190,226			
Unappropriated Surplus	605,152	20,218	81,879	(29,523)	(146,653)			
TOTAL REVENUES	21,093,680	8,267,796	6,759,023	8,517,162	6,983,036			
EXPENSES:								
Sidewalk Projects	1,016,075	856,237	863,004	834,394	856,426			
Street Resurfacing and Sealing	2,256,085	2,393,651	2,326,706	2,360,257	2,494,310			
Street Improvements	14,739,520	1,239,520	1,239,520	964,520	964,520			
Impact Fee Projects - District 1	1,087,053	2,126,871	537,053	1,987,053	537,053			
Impact Fee Projects - District 2	325,000	325,000	325,000	625,000	625,000			
Impact Fee Projects - District 3	540,000	540,000	540,000	640,000	640,000			
Traffic Operations Projects	392,014	411,584	417,807	424,186	570,726			
Miscellaneous Improvements	181,000	106,000	181,000	525,000	183,000			
Contributions to Other Funds	556,933	268,933	328,933	156,752	112,000			
TOTAL EXPENSES	21,093,680	8,267,796	6,759,023	8,517,162	6,983,035			
UNAPPROPRIATED SURPLUS:								
Beginning Balance	1,653,913	1,048,760	1,028,542	946,664	976,187			
Sources/(Uses)	(605,152)	(20,218)	(81,879)	29,523	146,653			
Ending Balance	1,048,760	1,028,542	946,664	976,187	1,122,840			

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

(M, I or -)

SIDEWALK PROJECTS:

Sidewalk Repair & Replacement (includes ADA)	672,075	692,237	713,004	734,394	756,426	Gas Tax	M	TE - Policy 5B
Deter Rd. from Hallam Dr. to Lake Miriam Dr.	87,500					Gas Tax	I	TE - Policy 6B
Skipper Place, Glendale St. to Regency Apts.		17,000				Gas Tax	I	TE - Policy 6C
Pablo Street & Windsor Street Sidewalks		37,000				Gas Tax	I	TE - Policy 6C
Sidewalks for Collector Streets				100,000	100,000	Gas Tax	I	TE - Policy 5A
Crystal Lake Dr (New Jersey Rd to Lk Hollingsworth Dr)	246,500					Gas Tax	I	TE - Policy 5A
Ariana Street from Unitah Av to S Dakota Av	10,000	110,000				Gas Tax	I	TE - Policy 5A
Buckingham Avenue from Edgewood Dr to Carleton St			150,000			Gas Tax	I	TE - Policy 5A
TOTAL SIDEWALK PROJECTS	1,016,075	856,237	863,004	834,394	856,426			

STREET RESURFACING AND SEALING PROJECTS:

Street Resurfacing and Sealing	2,171,085	2,203,651	2,236,706	2,270,257	2,304,310	Gas Tax	M	TE - Policy 1C
Pavement Markings	85,000	90,000	90,000	90,000	90,000	Gas Tax	M	TE - Policy 1C
Pavement Management Information System		100,000			100,000	Gas Tax	-	
TOTAL STREET RESURFACING PROJECTS	2,256,085	2,393,651	2,326,706	2,360,257	2,494,310			

STREET IMPROVEMENT PROJECTS:

Undesignated Projects	50,000	50,000	50,000	50,000	50,000	Gas Tax	M and I	TE -Policy 4C
Alley Maintenance & Improvements	50,000	50,000	50,000	75,000	75,000	Gas Tax	M	TE - Policy 1C
Edgewood Dr. Widening - Debt Service, City share (To '19)	100,000	100,000	100,000	100,000	100,000	Gas Tax	-	
East-West Connector	6,800,000					Gas Tax	I	TE- Policy 4C
East-West Connector (Debt Service on Bond)	753,114	753,114	753,114	453,114	453,114	Gas Tax	-	
Waring Road Extension	4,500,000					Gas Tax	I	TE- Policy 4C
Waring Road Extension (City share of debt servide)	286,406	286,406	286,406	286,406	286,406	Gas Tax	-	
Carpenters Way (D/S for \$4.0 Million pd by Imp Fees)	2,000,000					Impact Fees	I	TE Policy 4C
North Florida Ave Widening	200,000					Gas Tax	I	TE- Policy 4C
TOTAL STREET IMPROVEMENT PROJECTS	14,739,520	1,239,520	1,239,520	964,520	964,520			

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

(M, I or -)

TRANSPORTATION IMPACT FEE PROJECTS:

District 1:								
Sleepy Hill - Debt Service on City Share	550,000	1,589,818		450,000		Impact Fees	-	
Carpenters Way Debt Service (10 years)	537,053	537,053	537,053	537,053	537,053	Impact Fees	-	
Highway 33 Road Improvements				1,000,000		Impact Fees	I	TE- Policy 4C
District 2:								
Waring Road Extension (Impact Fee share of debt service)	325,000	325,000	325,000	325,000	325,000	Impact Fees	-	
East-West Connector				300,000	300,000	Impact Fees	I	TE- Policy 4C
District 3:								
Debt Service - Edgewood Dr Widening (Paid in '19)	540,000	540,000	540,000	640,000	640,000	Impact Fees	-	
TOTAL TRANS. IMPACT FEE PROJECTS	1,952,053	2,991,871	1,402,053	3,252,053	1,802,053			

TRAFFIC & PEDESTRIAN PROJECTS:

Traffic Calming Projects	50,000	50,000	50,000	50,000	50,000	Gas Tax	M	TE - Objective 2
Undesignated Projects	5,000	5,000	5,000	5,000	5,000	Gas Tax	M	TE - Objective 2
Traffic Signal Rehabilitation	50,000	50,000	50,000	50,000	50,000	Gas Tax	M	TE - Objective 2
Pedestrian Safety Awareness Campaign	10,000	10,000	10,000	10,000	10,000	Gas Tax	-	
ITS Maintenance	15,000	15,000	15,000	15,000	15,000	Gas Tax	-	
Light Emitting Diode (LED) signal lamp replacement	25,500	50,000	51,000	52,000	53,000	Gas Tax	M	TE - Objective 2
MLK @ 5th St Traffic Signal Re-Build					140,000	Gas Tax	M	TE - Objective 2
Traffic Studies and Analysis	25,000	25,000	25,000	25,000	25,000	Gas Tax	-	
FHWA Regulatory and Warning Signage Upgrade	32,500	32,500	32,500	32,500	32,500	Gas Tax	M	TE - Objective 2
Advanced Traffic Management System O & M	169,014	174,084	179,307	184,686	190,226	FDOT	M	TE - Objective 2
Traffic Counter Replacement	10,000					Gas Tax	-	
TOTAL TRAFFIC PROJECTS	392,014	411,584	417,807	424,186	570,726			

MISCELLANEOUS IMPROVEMENT PROJECTS:

Contingency	100,000	100,000	100,000	100,000	100,000	Gas Tax	-	
Concrete Crushing	75,000		75,000		75,000	Gas Tax	-	
Tigertown - Resurface Parking Lot				225,000		Gas Tax	-	
Sikes Blvd. Bridge Recoating				192,000		Gas Tax	-	
Roadway System Permit Recertification	6,000	6,000	6,000	8,000	8,000	Gas Tax	-	
TOTAL MISC. IMPROVEMENT PROJECTS	181,000	106,000	181,000	525,000	183,000			

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
CONTRIBUTIONS TO OTHER FUNDS:								
Parking System:								
Orange Street Garage			130,000					
Main Street Parking garage	115,000							
Debt Service - Verizon Property (10 yr Int. loan @ 5%)	88,933	88,933	88,933	44,752				
Lighting Retrofit - Main And Orange Street Garage	173,000							
Structural Inspection of Parking Garages	10,000	10,000	10,000	12,000	12,000			
Debt Service - Lake Mirror Park	100,000	100,000	100,000	100,000	100,000			
Transfer to Mid-town CRA - Internal Loan HOPE VI	70,000	70,000						
TOTAL CONTRIBUTIONS TO OTHER FUNDS	556,933	268,933	328,933	156,752	112,000			
TOTAL EXPENSES	21,093,680	8,267,796	6,759,023	8,517,162	6,983,036			

TABLE IX-ONE(B)(2)
DEVELOPER-FUNDED TRANSPORTATION PROJECTS

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
LCP Development LLC			6,864,000	2,500,000	1,984,000	Dev Agrmt 07/21/08		
Bridgewater (Partnership)	1,825,000					Dev Agrmt 10/06/08		
Centinel Commerce Center/Mall Hill Center	883,000		626,000			Dev Agrmt 08/17/07		
University of South Florida Polytechnic	67,000	5,030,000				Dev Agrmt 12/21/07		
Southeastern University (Longfellow BI project)	575,000					PUD 10/06/08		
TOTAL REVENUES	3,350,000	5,030,000	7,490,000	2,500,000	1,984,000			
EXPENSES:								
Lakeland Central Park DRI								
Airport Road (SR 570 to North Property Boundary)			6,864,000				I	TE Pol 4B; CIE Pol 3B
County Line Road at US 92 (New Tampa Hwy)				2,500,000			I	TE Pol 4B; CIE Pol 3B
US 92 (New Tampa Hwy) at Wabash Av					1,984,000		I	TE Pol 4B; CIE Pol 3B
Bridgewater DRI								
State Road 33 (W of Old Combee/Melody to E of Old Combee/Deeson Pointe)	1,700,000						I	TE Pol 4B; CIE Pol 3B
State Road 33 at Interstate 4 (Exit 38)	125,000						I	TE Pol 4B; CIE Pol 3B
Centinel Commerce Center/Mall Hill Center								
Kathleen Rd atMall Hill Rd	407,000						I	TE Pol 4B; CIE Pol 3B
Mall Hill Rd at Griffin Rd	476,000						I	TE Pol 4B; CIE Pol 3B
Griffin Rd at US 98			626,000				I	TE Pol 4B; CIE Pol 3B
University of South Florida Polytechnic								
State Rd 33 (Interstate-4 @ Exit 33 to Exit 38)	67,000	5,030,000					I	TE Pol 4B; CIE Pol 3B
Miscellaneous								
Longfellow BI (N Crystal Lake Dr to Prima Vista BI)	575,000						I	TE Pol 4B; CIE Pol 3B
TOTAL EXPENSES	3,350,000	5,030,000	7,490,000	2,500,000	1,984,000			

TABLE IX-ONE(C)
LAKELAND LINDER REGIONAL AIRPORT

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
FDOT Grants	400,000	357,000	1,000,000					
Unappropriated Surplus Used / (Generated)	416,871	648,441	756,551	503,951	496,615			
TOTAL CAPITAL REVENUES	816,871	1,005,441	1,756,551	503,951	496,615			

EXPENSES:								
Radio System Expansion - Transfer to IT	4,778	4,778	4,778	4,778		City	-	
Drainage Maintenance - Ditches	25,000	20,000	20,000	20,000	20,000	City	-	
Ditch Spraying	5,000	5,000	5,000	5,000	5,000	City	-	
Airfield Security and Access Control	20,000	20,000	20,000	20,000	20,000	City	-	
Door/Gates Access Control System - Phase 2		156,250				Grant	-	
Door/Gates Access Control System - Phase 3		110,000				Grant	-	
Equipment	5,000	5,000	5,000	5,000	5,000	City	-	
Rehab South Apron	250,000		1,250,000			Grant	-	
Airport Advertising / Promotions-Advertising	75,000	75,000	50,000	50,000	50,000	City	-	
Airport Maintenance - Sun 'N Fun	25,000	25,000	25,000	25,000	25,000	City	-	
Airfield Pavement Maintenance	50,000	50,000	50,000	50,000	50,000	City	-	
Misc. Maintenance Projects	35,000	35,000	35,000	35,000	35,000	City	-	
Runway Markings Maintenance	20,000	20,600	21,218	21,855	22,510	City	-	
Terminal:								
Terminal Construction	144,093	140,093	136,093	132,093	128,093	City	-	
Hangar:								
Maintenance Program	10,000	10,000	10,000	10,000	10,000	City	-	
Door Repairs	20,000	20,000	20,000	20,000	20,000	City	-	
Tower:								
Tower Repairs	1,500	1,500	1,500	1,500	1,500	City	-	
Airside:								
LAC Fire Sprinkler Upgrade	10,000	10,000	10,000	10,000	10,000	City	-	
LAC Fire System Maintenance	24,000	24,720	25,462	26,225	27,012	City	-	
Buildout Contingency	50,000	50,000	50,000	50,000	50,000	City	-	
Repair of Fixtures	12,500	12,500	12,500	12,500	12,500	City	-	
Maint. Piedmont Hawthorne Facility	1,000	1,000	1,000	1,000	1,000	City	-	
Maint. Tony's Airside Restaurant	1,000	1,000	1,000	1,000	1,000	City	-	
Maint. Europa Facility	500	500	500	500	500	City	-	
Maint. Renaissance Facility	1,000	1,000	1,000	1,000	1,000	City	-	

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
							(M, I or -)	
Maint. Air Service Facility	500	500	500	500	500	City	-	
Maint. AET LLC Facility	1,000	1,000	1,000	1,000	1,000	City	-	
Capital Costs - Airpark Land Sale:								
Install Electric Submeters	25,000	25,000				City	-	
Acquire Airfield Sweeper Truck		180,000				Grant	-	
TOTAL CAPITAL EXPENSES	816,871	1,005,441	1,756,551	503,951	496,615			

UNAPPROPRIATED SURPLUS:

Beginning Balance	820,288	507,114	201,624	24,749	108,165			
Sources / (Uses) - Capital	(416,871)	(648,441)	(756,551)	(503,951)	(496,615)			
Sources / (Uses) - Operating	103,697	342,951	579,675	587,367	581,406			
Ending Balance - Capital	2,229,978	2,229,978	2,229,978	2,229,978	2,229,978			
Ending Balance - Operating	(1,722,864)	(2,028,354)	(2,205,229)	(2,121,813)	(2,037,023)			
Ending Balance - TOTAL	507,114	201,624	24,749	108,165	192,955			

Level of Service code:

M = Maintain I = Improve - = not applicable

TABLE IX-ONE(D)
PARKING SYSTEM FUND

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE (M or I)	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
REVENUES:								
Transfer from Transportation Fund:								
Orange Street Garage			130,000					
Main Street Garage	115,000							
Debt Service - Verizon Property purchase	88,933	88,933	88,933	44,752				
Lighting Retrofit - Main and Orange Street Garage	173,000							
Structural Inspection of Parking Garages	10,000	10,000	10,000	12,000	12,000			
TOTAL REVENUES	386,933	98,933	228,933	56,752	12,000			
EXPENSES:								
Orange Street Garage:								
Exterior Coating			130,000			Gas Tax	-	
Main Street Garage:								
Exterior Coating	115,000					Gas Tax	-	
Other Parking Services Projects:								
Lighting Retrofit - Main and Orange Street Garage	173,000					Gas Tax	-	
Structural Inspection of Parking Garages	10,000	10,000	10,000	12,000	12,000	Gas Tax	-	
Verizon Property:								
Debt Service - Verizon Property purchase	88,933	88,933	88,933	44,752		Gas Tax	-	
TOTAL EXPENSES	386,933	98,933	228,933	56,752	12,000			
UNAPPROPRIATED SURPLUS	-							

TABLE IX-ONE(E)
DEPARTMENT OF WATER UTILITIES

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Impact Fee Collections	750,000	1,000,000	1,200,000	1,500,000	1,500,000			
Transfer from Operations - R&R	3,000,000	3,300,000	3,300,000	3,300,000	3,300,000			
Interest Earnings - Impact Fees	250,000	250,000	250,000	250,000	250,000			
Interest Earnings - Renewal and Replacement	272,000	272,000	272,000	272,000	272,000			
Unappropriated Surplus	897,072	1,584,792	(1,074,113)	(1,945,223)	(1,926,273)			
TOTAL REVENUES	5,169,072	6,406,792	3,947,887	3,376,777	3,395,727			

IMPACT FEE PROJECTS

PRODUCTION:

Combee Production Well Pump and Motor		150,000						
Sub-total		150,000						

RENEWAL AND REPLACEMENT FUND PROJECTS

PRODUCTION:

Tools & Equipment	34,000	34,000	36,000	36,000	38,000	City	-	
PICS Capital Equipment	4,000	5,000	5,000	6,000	6,000	City	-	
Equipment Replacement	90,000	90,000	90,000	90,000	100,000	City	-	
NW Plant Auxiliary System Upgrades	100,000	100,000	100,000	100,000	100,000	City	I	IF - Policy 1.1A
PICS System Replacement	700,000	600,000	600,000			City	-	
Rehab HS Pumps & Backwash Transfer Pumps	60,000					City	M	IF - Policy 1.1A
Painting of Structures Williams WTP				40,000		City	-	
NE Monitoring Well Equipment Replacement	40,000	40,000	40,000	40,000	40,000	City	M	IF - Policy 1.1B
Chlorine Response Equipment Replacement	15,000	15,000	20,000	20,000	20,000	City	-	
Williams Security Cameras	200,000					City	-	
Williams Filter Rehabilitation		150,000				City	M	IF - Policy 1.1B
Combee Chlorine Scrubber Rehabilitation			50,000			City	-	
Abandonment of Unused Wells	40,000					City	-	
CWP5530 Well Meter Rehab					25,000	City	-	
Highlands Ground Storage Tanks		1,500,000				City	-	
Sub-total	1,283,000	2,534,000	941,000	332,000	329,000			

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

(M, I or -)

IMPACT FEE PROJECTS

TRANSMISSION AND DISTRIBUTION:

Polk County Road Improvements	170,000	170,000	170,000	170,000	170,000	City	-	
Williams Tie South - 20"		450,000				City	I	IF - Policy 1.2E
US 98 - Highland City Widen - SR 540 to CR 540A	90,000					City	M	IF - Policy 1.2E
(Old) Medulla Rd Ext (Hamilton to County Line)		135,000				City	I	IF - Policy 1.2E
Drane Field Rd Ext (Hamilton to County Line)		135,000				City	I	IF - Policy 1.2E
W Pipkin Widening (Medulla to Harden)	300,000					City	-	
Subdivision and Development	65,000	65,000	66,300	66,300	66,300	City	-	
Sub-total	625,000	955,000	236,300	236,300	236,300			

RENEWAL AND REPLACEMENT FUND PROJECTS

TRANSMISSION AND DISTRIBUTION:

New Service Connections	45,000	56,100	57,200	58,400	59,575	City	I	IF - Policy 1.1A
Minor Extensions & Improvements	190,000	193,800	197,700	201,600	205,700	City	I	IF - Policy 1.1A
Distribution Facilities Replacement	46,000	87,720	89,500	91,275	93,100	City	M	IF - Policy 1.1A
New Water Meters	75,000	132,600	135,250	138,000	140,760	City	M	IF - Obj. 1.3
Meter Relocation/Improvement	7,500	7,650	7,800	7,960	8,120	City	-	
Tools & Equipment	12,000	12,240	12,500	12,750	13,000	City	-	
Asbestos Pipe Removal	25,000	25,500	26,010	26,530	27,060	City	M	IF - Policy 1.1B
Hydrant Installation-New Annexation	30,000	30,600	31,210	31,850	32,500	City	I	IF - Policy 1.2E
City Project Support	31,200	31,840	32,475	33,125	33,800	City	-	
Polk County Project Support	45,000	45,900	46,800	47,750	48,700	City	-	
State/FDOT Project Support	25,000	25,500	26,000	26,530	27,100	City	-	
City Parks & Rec Support	30,000	30,600	31,200	31,850	32,500	City	-	
GIS Water Data Collection	111,365	113,595	115,865	118,180	120,540	City	-	
Asbestos Pipe Abatement-Contractors	34,680	35,375	36,080	36,800	37,540	City	-	
Traffic Control Support	20,000	55,000	20,000	30,000	20,800	City	-	
Central Controlled Irrigation	11,490	11,715	11,950	12,190	12,435	City	-	
Long Term Project Support	122,290	191,215	195,040	198,940	202,920	City	-	
Water Meter Replacement	100,000	137,330	140,080	142,880	145,740	City	M	IF - Policy 1.1A
Backflow Prevention	64,440	65,730	67,045	68,385	69,755	City	-	
Other Distribution Projects (Contingency)	250,000	255,000	260,100	265,300	270,600	City	I	IF - Policy 1.2E
Replacement of Hand Held Radios	5,200	5,200	5,200	2,600	2,600	City	-	
Water Master Plan Projects	134,825	200,000	200,000	200,000	200,000	City	I	IF - Obj. 1.2
Polk County Road Improvements	70,000	100,000	100,000	100,000	100,000	City	I	IF Policy 1.2E
Backflow Preventer Aesthetic Retrofit	20,000	50,000	50,000	50,000	50,000	City	-	
Lakeland Highlands Rd Widening - Parkway south	1,000,000					City	I	IF Policy 1.2E
Sub-total	2,505,990	1,900,210	1,895,005	1,932,895	1,954,845			

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

(M, I or -)

IMPACT FEE PROJECTS

ENGINEERING:

Polk County Road Improvements	35,000	35,000	35,000	35,000	35,000	City	-	
Williams Tie South - 20"	50,000					City	-	
(Old) Medulla Rd Ext. (Hamilton to County Line)		15,000				City	-	
Drane Field Rd Ext (Hamilton to County Line)		15,000				City	-	
Subdivision & Commercial	350,000	350,000	400,000	400,000	400,000	City	-	
Sub-total	435,000	415,000	435,000	435,000	435,000			

RENEWAL AND REPLACEMENT FUND PROJECTS

ENGINEERING:

DRT - Developer Review Commercial	10,000	10,000	10,000	10,000	10,000	City	-	
SRT - Developer Review Subdivisions	10,000	10,000	10,000	10,000	10,000	City	-	
Minor Extensions & Improvements	20,000	20,000	20,000	20,000	20,000	City	-	
Hydrant Installation - New Annexation	3,500	5,000	5,000	5,000	5,000	City	-	
City Project Support	25,000	30,000	30,000	30,000	30,000	City	-	
Polk County Project Support	8,500	9,500	9,500	9,500	9,500	City	-	
State / FDOT Project Support	30,000	35,000	35,000	35,000	35,000	City	-	
City Parks & Rec Support	20,000	25,000	25,000	25,000	25,000	City	-	
Other Distribution Projects	100,000	200,000	200,000	200,000	200,000	City	-	
CWE5096 Crow Water Projects Easements	30,000	40,000	40,000	40,000	40,000	City	-	
Water Master Plan Projects	20,000	20,000	20,000	20,000	20,000	City	-	
Replacement of Hand Held Radios	12,000	12,000				City	-	
Polk County Road Improvements	20,000	25,000	25,000	25,000	25,000	City	-	
Transfer to PIF-Training Center Relocation/Renovation	11,082	11,082	11,082	11,082	11,082	City	-	
Sub-total	320,082	452,582	440,582	440,582	440,582			

TOTAL EXPENSES	5,169,072	6,406,792	3,947,887	3,376,777	3,395,727			
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ENDING CASH BALANCES:

IMPACT FEES	2,414,450	2,144,450	2,923,150	4,001,850	5,080,550			
RENEWAL AND REPLACEMENT	2,501,681	1,186,889	1,482,302	2,348,825	3,196,398			
TOTAL CASH BALANCES	4,916,131	3,331,339	4,405,452	6,350,675	8,276,948			

Level of Service code:

M = Maintain I = Improve - = not applicable

**TABLE IX-ONE(F)
WASTEWATER FUND**

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
Impact Fee Collections	1,200,000	1,500,000	1,800,000	2,200,000	2,200,000			
Transfer from Operations - R&R	2,600,000	3,000,000	3,000,000	3,000,000	3,000,000			
Contributions from Developers - R&R	5,000	5,000	5,000	5,000	5,000			
Property Assessments - Orangewood	16,782	16,782	16,782	16,782	16,782			
Interest Earnings - R&R	100,000	100,000	100,000	100,000	100,000			
Interest Earnings - Impact Fees	100,000	100,000	100,000	100,000	100,000			
Proceeds from Issuance of LT Debt				30,000				
Unappropriated Surplus	1,206,285	1,533,885	93,885	143,885	54,036			
TOTAL REVENUES	5,228,067	6,255,667	5,115,667	5,595,667	5,475,818			

EXPENSES:

COLLECTION SYSTEM:

Rehabilitation Program	866,000	950,000	1,000,000	1,000,000	1,000,000	City	M	IF - Obj. 2.1F
Other Construction Projects		50,000	50,000	50,000	50,000	City	I	IF - Policy 2.1D
Other Replacement Projects		50,000	50,000	50,000	50,000	City	M	IF - Obj. 2.1F
Collection System Monitoring		45,000				City	-	
Relocation Projects:								
Undesignated Utility Relocations	40,000					City	-	
US 92 - Airport Rd. to Intown Bypass	75,000					City	M	IF - Obj. 2.1
West Pipkin, Medulla to Harden	20,000					City	M	IF - Obj. 2.1
US 98 S Clubhouse to Winter Lake		200,000	250,000			City	M	IF - Obj. 2.1
SR 563 Parkway to Pipkin			50,000			City	M	IF - Obj. 2.1
Business 92 Airport Rd to InTown Bypass		50,000	100,000	100,000		City	M	IF - Obj. 2.1
Knights Station Road				10,000		City	-	
Lakeland Highlands Rd Polk Pky to 540A	400,000					City	-	
Harden CRA	20,000					City	-	
US 98 S from 540A to 540	868,000	1,500,000				City	-	
Utility Relocation US 98 S from 540A to 540	250,000					City	M	IF - Obj. 2.1
Airport Road Oversizing Contribution	100,000					City	-	
Sub-total	2,639,000	2,845,000	1,500,000	1,210,000	1,100,000			

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

(M, I or -)

PUMP STATIONS:

Renewal & Replacement

Telemetry System Upgrades	30,000	25000	50,000	50,000	50,000	City	-	
Generator Storage Shed			50,000			City	-	
Grasslands Generator			55,000			City	-	
Generator at Great Oaks Pump Station			45,000			City	-	
Spring Oaks Pump Station (Pump & Panel)					30,000	City	-	
Bridgefield Pump Station (Pump & Panel)					30,000	City	-	
Stone Water Pump Station (Pump & Panel)					30,000	City	-	
Willow Brook Pump Station (Pump & Panel)					30,000	City	-	
Highland Fairways Generator					45,000	City	-	
Carillon Lakes Generator					45,000	City	-	
Morris Realty Pump Station				275,000		City	I	IF - Policy 2.1D
NW Pump Station Flow Meter Replacement		15,000				City	-	
Upgrade Northeast Pump Station					500,000	City	-	
Georgetown (Pump & Panel)	30,000					City	-	
Sub-total	60,000	40,000	200,000	325,000	760,000			

TREATMENT PLANTS:

Glendale:								
Renewal & Replacement								
Replace Reuse Station Gen. & Switch Gear		100,000				City	M	IF - Obj. 2.3
Repair and Repave Roads				55,000		City	M	IF - Obj. 2.3
Facility Painting				250,000		City	-	
Replacement of Scum Pumping Equipment					100,000	City	-	
Replacement of Clarifier Drive Mechanisms			400,000			City	M	IF - Obj. 2.3
Replacement of Sludge Pumping Equipment		85,000				City	M	IF - Obj. 2.3
Replacement of Magnetic Flow Meters		50,000				City	M	IF - Obj. 2.3
Climber Screen Replacement				120,000		City	-	
Repair and Repave Service Roads				60,000		City	M	IF - Obj. 2.3
Debris Removal					65,000	City	-	
Replace Primary Scrubber Recirculation System					165,000	City	-	
Flow Equalization Tank				500,000		City	-	
Repair Walker Clarifiers / Aeration Tanks					165,000	City	-	
Operator Assistance Program Phase II			25,000			City	-	
Repair and Replace Odor Control Blowers	75,000					City	-	

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE (M, I or -)	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
Northside:								
Renewal & Replacement								
Bypass Pump Station Rehab					175,000	City	-	
Northside Operator Assistance Program Phase II			25,000			City	-	
Sub-total	75,000	235,000	450,000	985,000	670,000			

WETLANDS:

Renewal & Replacement								
Piping of Effluent Ditch	150,000					City	-	
Distribution Ditch Rehabilitation		175,000				City	-	
Wetlands East Boundary Fence	180,000					City	-	
Wetlands Discharge Ditch Dredge		200,000				City	-	
Replace 50 Hp Blower and Intake System	30,000					City	-	
Sub-total	360,000	375,000						

ENGINEERING:

Renewal & Replacement								
Subdivision and Commerical Development	100,000	100,000	100,000	100,000	100,000	City	-	
County Projects	10,000	10,000	10,000	10,000	10,000	City	-	
D.O.T. Projects	10,000	10,000	10,000	10,000	10,000	City	-	
Utility Relocate-Lakeland Highlands Rd Polk Pky to 540A	20,000	10,000				City	M	IF - Policy 2.1B
Utility Relocation Project Harden CRA Engineering	2,000					City	M	IF - Policy 2.1B
Undesignated Engineering Projects	60,000	60,000	60,000	60,000	60,000	City	-	
Impact Fees								
Subdivision and Commerical Development	350,000	400,000	400,000	400,000	400,000	City	I	IF - Policy 2.1B
Undesignated Expansion Projects (Eng)	20,000	20,000	20,000	20,000	20,000	City	I	IF - Policy 2.1B
Sub-total	572,000	610,000	600,000	600,000	600,000			

STATE REVOLVING LOAN:

Additional Treatment Capacity at Glendale - Engineering				30,000		DEBT	I	IF -Policy 2.1B
Sub-total				30,000				

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
MISCELLANEOUS:								
Impact Fees								
SRL Debt Service - Impact Fees		730,000	945,000	945,000	945,000	City	-	
Debt Service-Impact Fees	1,052,736	1,052,736	1,052,736	1,052,736	1,052,736	City	-	
Renewal & Replacement								
Contingency	150,000	150,000	150,000	150,000	150,000	City	-	
Equipment	92,400	100,000	100,000	100,000	100,000	City	-	
Transfer to Fleet Management Fund	84,000					City	-	
Radio Replacement - repayment of FY 2000 purchases	19,849	19,849	19,849	19,849		City	-	
Annual Report	12,000	12,000	12,000	12,000	12,000	City	-	
Local Limits Headworks Study				80,000		City	-	
Sanitary Sewer Inventory Conversion	100,000	75,000	75,000	75,000	75,000	City	-	
Transfer to PIF-Training Center Relocation / Renovation	11,082	11,082	11,082	11,082	11,082	City	-	
Sub-total	1,522,067	2,150,667	2,365,667	2,445,667	2,345,818			
TOTAL EXPENSES	5,228,067	6,255,667	5,115,667	5,595,667	5,475,818			

ENDING CASH BALANCES:

IMPACT FEES	3,384,851	2,782,115	2,264,379	2,146,643	2,028,907			
RENEWAL AND REPLACEMENT	1,327,472	396,323	820,174	794,025	857,725			
TOTAL CASH BALANCES	4,712,323	3,178,438	3,084,553	2,940,668	2,886,632			

TABLE IX-ONE(G)
PUBLIC IMPROVEMENT FUND

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
REVENUES:								
LRMC Lease Payments	10,500,000	10,500,000	10,689,000	10,881,000	11,077,000			
Investment Earnings	196,875	196,875	200,719	204,019	207,694			
Miscellaneous Internal Loans:								
USF Contribution / Loan through LEDC (7 years)	1,000,000							
Heritage Town Center Training Facility	810,000							
Transfers From:								
Transportation Fund	100,000	100,000	100,000	100,000	100,000			
Impact Fee Fund:								
Parks & Recreation	109,532		250,000	2,000,000	750,000			
Police	500,000							
Lake Mirror Park:								
CRA contribution to debt service	350,000	350,000	350,000	350,000	350,000			
Marchant Stadium Expansion Revenues:								
State of Florida - Office of Tourism	466,668	466,668	466,668	466,668	466,668			
Polk County Tourist Development Council	192,685	192,685	192,685	192,685	192,685			
Detroit Tiger - Commissions	234,797	234,797	234,797	234,797	234,797			
Detroit Tiger - Commissions-seating loan (Paid 2016)	55,470	55,470	55,470	55,470	55,470			
Detroit Tiger - Commissions-Fetzer loan (Paid 2016)	140,625	140,625	140,625	140,625	140,625			
Library Revenues:								
County Library Cooperative	200,000	200,000	200,000	200,000	200,000			
Fire Department Revenues:								
Fire Protection Fees	300,000	250,000	250,000	200,000	200,000			
Transfer from Imp. Fee Fund	200,000	200,000	200,000	200,000	89,301			
Nextel Antenna Tower Lease	30,000	30,000	30,000	30,000	30,000			
Oak Hill Cemetery - Fund Transfer	110,000							
Reimb. For Training Center D/S from User Depts (5 yrs)	112,426	112,426	112,426	112,426	112,426			
Unappropriated Surplus - Used / (Generated)	(119,035)	1,023,472	408,071	269,657	299,837			
TOTAL REVENUES	15,490,043	14,053,018	13,880,461	15,637,347	14,506,503			

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
EXPENSES:								
Parks	2,576,531	3,373,632	3,158,654	3,249,147	3,069,147			
Recreation	815,662	950,662	685,662	798,162	696,862			
Parks & Recreation Impact Fee Projects	109,532		250,000	2,000,000	750,000			
Library	200,000	200,000	200,000	200,000	200,000			
Oak Hill Cemetery	28,200	53,250	68,300	23,350	103,400			
Police Department	984,421	734,421	234,421	184,421	234,421			
Fire Department	1,256,585	1,158,460	1,164,185	1,173,685	1,066,586			
Non-Departmental	2,500,497	1,593,497	2,006,497	1,769,844	2,043,014			
Contributions to Other Funds	7,018,615	5,989,096	6,112,441	6,238,737	6,343,071			
TOTAL EXPENSES	15,490,043	14,053,018	13,880,161	15,637,347	14,506,503			

UNAPPROPRIATED SURPLUS:

Beginning Balance	3,107,074	3,226,109	2,202,638	1,794,567	1,524,910			
Sources/(Uses)	119,035	(1,023,472)	(408,071)	(269,657)	(299,837)			
Ending Balance	3,226,109	2,202,638	1,794,567	1,524,910	1,225,074			

EXPENSES:

PARKS:

Beautification Projects (Partial Grant & 100% City Funded):								
Neighborhood Beautification	50,000	50,000	50,000	50,000	50,000	City	-	
Horney Park:								
Playground		60,000				City	M	ROS - Policy 5A
Lake Bonny Community Park:								
Playground Replacement				180,000		City	M	ROS - Policy 5A
Lake Mirror Park:								
Hollis Gardens Sidewalk Lighting				95,000		City	I	ROS Obj. 5
Regency Hotel - Internal Loan Subsidy (Paid 2015)	100,000	100,000	100,000	100,000	100,000	City	-	
Lake Mirror Park - Debt Service (Paid 2018)	1,000,000	1,500,000	1,500,000	1,500,000	1,500,000	City	-	
Internal Loan - Motel (\$450,000 for 10 years @ 6.5%)	59,485	59,485	59,507			City	-	
Purchase Nally Property (\$2,500/month for 15 years)	30,000	30,000	30,000	30,000	30,000	City	I	ROS - Policy 6C
Lake Parker Park:								
Playground Replacement				180,000		City	M	ROS - Policy 5A
Dog Park					75,000	City	I	ROS - Policy 6C
Marchant Stadium:								
Expansion - Debt Service (To 2015)	894,150	894,150	894,150	894,150	894,150	PIF	-	
Expansion - Debt Service (To 2015) City Share	28,527	28,527	28,527	28,527	28,527	City	-	
Seating - Int. Loan Debt Service (Paid in '16)	55,470	55,470	55,470	55,470	55,470	City	-	
Marchant Stadium Structural Survey		5,000				City	-	

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -)								
Stadium Scoreboard - Debt Service paid in '10	22,899					City	-	
Miami Park:								
Playground Replacement					50,000	City	M	ROS - Policy 5A
Peterson Park:								
Playground Replacement			200,000			PIF	M	ROS - Policy 5A
Sertoma Park:								
Picnic Shed Replacement		40,000				City	M	ROS - Policy 5A
Park Renovation		55,000				City	M	ROS - Policy 5A
Tigertown:								
Stadium Facility Improvements	111,000	111,000	111,000	111,000	111,000	City	M	ROS - Policy 5A
Infield and Wall Improvements	100,000	50,000				City	-	
Westside / Southwest Complexes:								
S.W./W.S. Complexes-Bathroom Upgrade			55,000			City	M	ROS - Policy 5A
Irrigation Projects:								
Centralized Irrigation System		50,000				City	-	
Sportsfield Projects:								
Sports Field Lighting Upgrade		175,000				City	-	
Sports Complex Scoreboard Replacement					50,000	City	-	
Miscellaneous Parks Projects:								
Park Consultant Design Services	25,000	25,000	25,000	25,000	25,000	City	-	
Pavement Management System - (Re-pave Park Paths)	50,000		50,000		50,000	City	M	ROS - Policy 5A
Holiday Decorations	50,000	50,000				City	-	
Lake Hunter Boat Ramp Picnic Pavilion		35,000				City	M	ROS - Policy 1E
Interlachen Park - Camellia Garden					50,000	City	-	
TOTAL PARKS	2,576,531	3,373,632	3,158,654	3,249,147	3,069,147			

RECREATION:

Coleman Bush Building:								
Debt Service - Paid off in 2014	236,917	236,917	236,917	236,917	236,917	City	-	
Kelly Recreation Complex:								
Kelly Rec - Replace Weight Room Equipment	10,000					City	M	ROS - Policy 5A
Gandy/Kelly Rec Painting & Repair	60,000					City	M	ROS - Policy 5A
Kelly Rec - Tennis Courts Relighting		120,000				City	M	ROS - Policy 5A
Gandy Pool Gas Heater Replacement			40,000			PIF	-	
Gandy & Simpson / Lane Lines				42,000		City	-	
Gandy & Simpson Pools - Shade Awnings				30,000		City	-	
Kelly Rec - Playground				85,000		City	M	ROS -Policy 5A
Kelly Rec - Fence Tennis Courts				35,000		City	-	
Gandy - Air / Heat Installed in Locker Rooms					52,000	City	-	

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
							(M, I or -)	
Gym roof Replacement	125,000					City	-	
Lake Mirror Center:								
Theater Ceiling / Seats / HVAC replacement	50,000	350,000				City	-	
Sound System Improvements				26,000		City	M	ROS - Policy 5A
Furniture Replacement				99,500		City	M	ROS - Policy 5A
Northeast Recreation Complex:								
Debt Service - Rec Complex Property	143,745	143,745	143,745	143,745	143,745	City	-	
Simpson Park:								
Playground Replacement	90,000					City	M	ROS - Policy 5A
Gas Heater/Pool Blankets			165,000			PIF	-	
Steel Outer Perimeter Fence					80,000	City	-	
Miscellaneous Recreation Projects:								
Renovate Buildings and Playgrounds	100,000	100,000	100,000	100,000	150,000	City	M	ROS - Policy 5A
Pool & Vacuum Pump, Valve Replacements					34,200	City	-	
TOTAL RECREATION	815,662	950,662	685,662	798,162	696,862			

P&R IMPACT FEE PROJECTS:

District 1:								
NE Rec Complex			250,000	2,000,000		Impact Fees	I	ROS - Policy 5A
District 2:								
Capital & DS - Kelly Rec A/C & Expansion (Impact Fee Share)	109,532					City	I	ROS - Policy 5A
Cypress Youth Complex					750,000	Impact Fees	I	ROS - Policy 5A
TOTAL P&R IMPACT FEE PROJECTS	109,532		250,000	2,000,000	750,000			

LIBRARY:

Co-op Funded Projects:								
Future Expansion Reserve	20,000	167,000	160,000	100,000	75,000	Library Coop	-	
Library Furniture	25,000			100,000		Library Coop	-	
Computer Equipment Upgrade			40,000			Library Coop	-	
Technical Services Furniture - Main Library		18,000				Library Coop	-	
Carpet (Main)	10,000				125,000	Library Coop	-	
Electrical Improvements	5,000					Library Coop	-	
Public Computing Center	140,000					Library Coop	-	
Closed Circuit Camera System Upgrade		15,000				Library Coop	-	
TOTAL LIBRARY	200,000	200,000	200,000	200,000	200,000			

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE (M, I or -)	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			

OAK HILL CEMETERY:

Routine Maintenance	3,200	3,250	3,300	3,350	3,400	NA	-	
Oak Hill Expansion Phase IV	25,000					NA	-	
Oak Hill Expansion Phase V		50,000				NA	-	
Oak Hill Irrigation Upgrade					100,000	NA	-	
Resurface Roadways			40,000			NA	-	
48 Niche Collumbarium				20,000		NA	-	
Oak Hill Expansion			25,000			NA	-	
TOTAL OAKHILL CEMETERY	28,200	53,250	68,300	23,350	103,400			

POLICE DEPARTMENT:

New Flooring/Carpet			50,000		50,000	NA	-	
Training Center Expansion (Police Impact Fees)	500,000					NA	-	
A/C Chiller Replacements		450,000				NA	-	
Roof Replacement	300,000					NA	-	
CAD / Reporting System Repl. (D/S - 8 years)	184,421	184,421	184,421	184,421	184,421	NA	-	
Fire Panel		100,000				NA	-	
TOTAL POLICE	984,421	734,421	234,421	184,421	234,421			

FIRE DEPARTMENT:

Central Fire Station Debt Service (Paid in '14)	301,585	308,460	314,185	323,685	327,285	NA	-	
Debt Service - Station #6	200,000	200,000	200,000	200,000	89,301	NA	-	
Motor Pool Purchases	650,000	650,000	650,000	650,000	650,000	NA	-	
Engine Bay Door Upgrade	70,000					NA	-	
Station #1 - Condenser Replacement	35,000					NA	-	
TOTAL FIRE	1,256,585	1,158,460	1,164,185	1,173,685	1,066,586			

NON-DEPARTMENTAL:

Neighborhood Projects:								
Neighborhood Preservation	30,000	40,000	40,000	50,000	50,000	NA	-	
Neighborhood Matching Grants Program	35,000	40,000	40,000	45,000	45,000	NA	-	
Historic Street Lighting - Cumberland Neighborhood	50,000	60,000	60,000	60,000	70,000	NA	-	
Information Technologies:								
Upgrade & Purchase of Radio Towers (D/S)	264,653	264,653	264,653			NA	-	
City Hall:								
Replace Damaged Doors and Woodwork	35,000					NA	-	
All Other General Fund Buildings:								
City Roof Audit	100,000					NA	-	

Level of Service code:

M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE (M, I or -)	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
Roof Replacements	110,000	116,000	122,000	128,000	134,000	NA	-	
Air Conditioner Replacements	60,000	65,000	70,000	75,000	80,000	NA	-	
Carpet Replacements	39,000	41,000	43,000	45,000	47,000	NA	-	
Recoating / Sealing	100,000	100,000	100,000	100,000	100,000	NA	-	
Miscellaneous Non-Departmental Projects:								
ADA Compliance	25,000	25,000	25,000	25,000	25,000	NA	-	
Land Acquisition - (Paid '14))	152,161	152,161	152,161	152,161	152,331	NA	-	
Contingency	150,000	150,000	150,000	150,000	150,000	NA	-	
Debt Service - USF Contribution/Loan - LEDC (10 yrs)	350,000	350,000	750,000	750,000	1,000,000	NA	-	
Heritage Town Center - Design & Construction	810,000					NA	-	
D/S-Heritage Town Center Training Facility (Paid in '14)	189,683	189,683	189,683	189,683	189,683	NA	-	
TOTAL NON DEPARTMENTAL	2,500,497	1,593,497	2,006,497	1,769,844	2,043,014			
CONTRIBUTIONS TO OTHER FUNDS:								
General Fund	3,182,700	3,278,181	3,376,526	3,477,822	3,582,157			
Dividend Assistance	1,975,000	2,000,000	2,025,000	2,050,000	2,050,000			
Information Technologies Fund:								
VOIP - General Fund Share of Phone Switch Replacement	85,915	85,915	85,915	85,915	85,915			
Lakeland Center Fund:								
Capital Transfer	350,000	350,000	350,000	350,000	350,000			
Operating Transfer	225,000	225,000	225,000	225,000	225,000			
Cleveland Heights Golf Course	200,000	50,000	50,000	50,000	50,000			
USF Contribution / Loan through LEDC	1,000,000							
TOTAL CONTRIBUTIONS TO OTHER FUNDS	7,018,615	5,989,096	6,112,441	6,238,737	6,343,071			
TOTAL EXPENSES	15,490,043	14,053,018	13,880,161	15,637,347	14,506,503			

Level of Service code:

M = Maintain I = Improve - = not applicable

**TABLE IX-ONE(H)
STORMWATER FUND**

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
(M, I or -) COMP PLAN								
REVENUES:								
Stormwater Utility Revenues - Commercial	1,985,000	2,005,000	2,025,000	2,045,000	2,065,000			
Stormwater Utility Revenues - Residential	2,335,000	2,358,000	2,382,000	2,406,000	2,430,000			
Stormwater Fees - Interfund	95,000	95,950	96,910	97,879	98,857			
Investments & Earnings	116,565	113,218	113,517	136,040	153,610			
Unappropriated Surplus	191,731	30,717	(93,292)	106,142	(23,784)			
TOTAL REVENUES	4,723,296	4,602,885	4,524,134	4,791,061	4,723,684			
EXPENSES:								
Stormwater Projects	2,882,296	2,500,775	2,275,853	2,551,547	2,777,875			
Drainage Projects	1,561,000	1,797,110	1,943,281	1,679,514	1,635,809			
Lakes and Environmental Projects	280,000	305,000	305,000	310,000	310,000			
TOTAL EXPENSES	4,723,296	4,602,885	4,524,134	4,541,061	4,723,684			
UNAPPROPRIATED SURPLUS:								
Beginning Balance	860,645	668,914	638,197	731,489	625,347			
Sources / (Uses)	(191,731)	(30,717)	93,292	(106,142)	23,784			
Ending Balance	668,914	638,197	731,489	625,347	649,131			
STORMWATER PROJECTS:								
Lake Bonny:								
Diagnostic Study		150,000				St Ut	-	
Watershed Management Projects				250,000	850,000	St Ut	I	IF - Obj. 4.2
Lake Gibson:								
Southwest Basin Retrofit	750,000					Grant/St Ut	I	IF - Obj. 4.2
Lk Gibson SW Basin - Design	650,000					Grant	-	
Watershed Mgmt Plan and Projects					250,000	Grant/St Ut	I	IF - Obj. 4.2
Hunter/Beulah/Wire Watershed:								
Watershed Management Plan and Projects		900,000	900,000	900,000		St Ut	I	IF - Obj. 4.2
Lake John:								
Watershed Mgmt Plan and Projects					250,000	St Ut	I	IF - Obj. 4.2
Miscellaneous:								
Stormwater O&M	607,296	625,515	644,280	663,609	683,517	St Ut	-	
Repair and Maintenance of PCD's	88,000	94,000	95,000	96,000	97,000	St Ut	M	IF - Obj. 4.2
Flood Control Automation Retrofit	200,000	200,000	100,000	100,000	100,000	St Ut	-	

Level of Service code:
M = Maintain I = Improve - = not applicable

TYPE OF FUND	BUDGET YEAR					FUNDING SOURCE	LEVEL OF SERVICE	GOPs CONSISTENCY
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014			
							(M, I or -)	
Drainage Maintenance Operations	526,000	531,260	536,573	541,938	547,358	St Ut	M	
Route Smart - Streetsweeper Ops.	15,000					St Ut	-	
Crew Truck	46,000					St Ut	-	
Highlands Hills Ditch Maint & Repairs				250,000		St Ut	M	IF - Obj. 4.2
TOTAL STORMWATER PROJECTS	2,882,296	2,500,775	2,275,853	2,551,547	2,777,875			
DRAINAGE PROJECTS:								
Storm Sewer Inventory	50,000	50,000	30,000	30,000	30,000	St Ut	-	
TV & Cleaning Storm Drainage	125,000	125,000	125,000	125,000	125,000	St Ut	M	IF - Obj. 4.2
Maintenance & Retrofit of Drainage Facilities	275,000	275,000	275,000	275,000	275,000	St Ut	M	IF - Obj. 4.2
Shore Acre Subdivision (Fern Road)		520,000			420,000	St Ut	M	IF - Obj. 4.2
Street Sweeping Operations	611,000	617,110	623,281	629,514	635,809	St Ut	-	
Curran Street Stormwater Retrofit Project		25,000	160,000			St Ut	M	IF - Obj. 4.2
Massachusetts Ave. & Plum St. Stormsewer Retrofit	500,000					St Ut	M	IF - Obj. 4.2
Wayman St. Ditch repairs		50,000	500,000			St Ut	M	IF - Obj. 4.2
Deter Pit Retrofit		30,000	200,000			St Ut	M	IF - Obj. 4.2
Allamanda Street and Horney Park Pump Retrofit		40,000		230,000		St Ut	M	IF - Obj. 4.2
Ruby Street in Lake Hunter Terrace - design		15,000		40,000		St Ut	-	
East Highland Dr/Nunnswood Lane -design		50,000		250,000		St Ut	-	
Lake John - Sommerset Weir Retrofit			30,000		150,000	St Ut	M	IF - Obj. 4.2
Charnes Drive				100,000		St Ut	-	
TOTAL DRAINAGE PROJECTS	1,561,000	1,797,110	1,943,281	1,679,514	1,635,809			
LAKES AND ENVIRONMENTAL PROJECTS:								
Contribution to LEAD	25,000	25,000	25,000	25,000	25,000	St Ut	-	
Lake Improvement Projects	225,000	250,000	250,000	250,000	250,000	St Ut	M	IF - Obj. 4.2
Public Education Programs	30,000	30,000	30,000	35,000	35,000	St Ut	-	
TOTAL LAKES AND ENVIRONMENTAL PROJECTS	280,000	305,000	305,000	310,000	310,000			
TOTAL EXPENSES	4,723,296	4,602,885	4,524,134	4,541,061	4,723,684			

**TABLE IX-TWO
PROGRAMMED ROADWAY CAPACITY AND INTERSECTION IMPROVEMENT PHASES (\$1,000)**

TYPE*	STREET	FROM	TO	IMP.	2010	2011	2012	2013	2014
CITY OF LAKELAND CAPITAL IMPROVEMENT PLAN – FISCAL YEARS 2010-2014									
C	Edgewood Drive Ext. (aka East-West Connector)	SR 37 (S. Florida Avenue)	SR 563 (Harden Boulevard)	New 2	6,800 TF			300 IF	300 IF
C	Waring Road Ext.	West Pipkin Road	Old Medulla Road	New 2 w/ 4 ROW	4,500 TF				
O	Carpenters Way	Corporate Way	Wedgewood Estates Boulevard	Imp. 2	2,000 TF				
C	State Road 33	Interstate 4 EB (Exit 33)	Interstate 4 (Exit 38)	2 to 4				1,000 IF	
POLK COUNTY CAPITAL IMPROVEMENT PROGRAM – FISCAL YEARS 2010-2014									
C	Waring Road Ext.	West Pipkin Road	Old Medulla Road	New 2 w/ 4 ROW	172 ROW 375 CST				
C	Pace Road	CR 655 (Berkley Road)	SR 570 (Polk Parkway)	New 4	1,436 ENH				
C	County Line Road	SR 60	West Pipkin Road	2 to 4	16,218 CST				
C	CR 35A (Kathleen Road)	Galloway Road	Duff Road	2 to 4	16,148 ROW	11,000 CST	15,000 CST		
C	CR 37B (Lakeland Highlands Road)	CR 540A	SR 570 (Polk Parkway)	2 to 4	16,822 CST	8,500 CST			
C	West Pipkin Road	Medulla Road	Old Highway 37	2 to 4	7,016 ROW				
C	West Pipkin Road @ Harden Boulevard	West Pipkin Road: @ Old Highway 37 and Harden Boulevard Harden Boulevard: SR 570 to West Pipkin Road (Add'l SB		TSM	12,026 CST				
C	Alamo Drive	@ SR 37 (South Florida Avenue)		TSM	1,594 CST				
O	Shepherd Road	@ Bailey Road		TSM	412 CST				
FLORIDA DEPARTMENT OF TRANSPORTATION ADOPTED WORK PROGRAM – FISCAL YEARS 2009/10 – 2013/14 (JULY 1, 2009)									
C	SR 570 (Polk Parkway)	@ Pace Road		New Int.	1,322 DSB				
C	SR 570 (Polk Parkway)	S of Pace Road	Interstate 4	2 to 4	100 RRU 50 INC 676 DSB				

TYPE*	STREET	FROM	TO	IMP.	2010	2011	2012	2013	2014
C	US 98	@ SR 540 (Winterlake Road)		TSM		2,866 CST 62 SUP			
O	US 98	@ PCC/USF Entrance		TSM	249 CST 9 SUP				
O	US 98	Eighth Street	Tenth Street	TSM	81 CST 7 SUP				
O	US 98	S of Home Depot	N of Home Depot (S of Griffin Road)	TSM	34 PE 129 CST 8 SUP				
C	US 98 (Bartow Road)	North of CR 540A	SR 540 (Winterlake Road)	4 to 6			2,048 ROW		
C	Edgewood Extension (E-W Connector)	SR 563 (Harden Boulevard)	Lincoln Avenue	New 2	3,557 PCST				
O	SR 37 (South Florida Avenue)	@ Brannen Road		TSM	332 CST				
C/R	East-West Road**	SR 33 @ Firstpark Boulevard	Pace Road @ SR 570	New 2	20 PDE 24,803 DSB 2,785 SUP				
C/R	USF Loop Road**	East-West Road	East-West Road (W of Pace Road/SR 570 Interchange)	New 2					
C	SR 33 (Lakeland Hills Boulevard)	300' South of Florida Avenue	Socrum Loop Road	TSM	1,144 CST 125 SUP				
DEVELOPER-FUNDED TRANSPORTATION IMPROVEMENTS									
LAKELAND CENTRAL PARK DRI – DRI DEVELOPMENT ORDER AND DEVELOPMENT AGREEMENT									
C	Airport Road	SR 570 (Polk Parkway)	Northern Property Boundary	2 to 4		6,864 CST			
C	County Line Road	@ US 92 (New Tampa Highway)		TSM			2,500 CST		
C	US 92 (New Tampa Highway)	@ Wabash Avenue		TSM				1,984 CST	
BRIDGEWATER DRI									
C	State Road 33	W. of Old Combee/Melody	E. of Old Combee/Deeson Pointe	2 to 4	1,700 CST				
C	State Road 33	@ Interstate 4 (Exit 38)		TSM	125 PCST				
CENTINEL COMMERCE CENTER/MALL HILL CENTER DEVELOPMENT AGREEMENT									
C	Kathleen Road	@ Mall Hill Road		TSM	407 CST				
C	Mall Hill Road	@ Griffin Road		TSM	476 CST				
C	Griffin Road	@ US 98		TSM			626 CST		

TYPE*	STREET	FROM	TO	IMP.	2010	2011	2012	2013	2014
UNIVERSITY OF SOUTH FLORIDA POLYTECHNIC – CAMPUS DEVELOPMENT AGREEMENT									
C	State Road 33	Interstate 4 @ Exit 33	Interstate 4 @ Exit 38	2 to 4 TSM	35 PDE 32 PCST	5,030 CST			
MISCELLANEOUS – REQUIREMENTS THROUGH ZONING CONDITIONS									
C	Longfellow Boulevard	North Crystal Lake Drive	Prima Vista Boulevard	Imp. 2/ TSM	575 CST				

IMP: Improvement

IF: Impact Fee Funding

PDE: Project Development and Environmental Study

PE: Preliminary Engineering or Design

ROW: Right-of-Way Acquisition

RRU: Railroad and Utility

DSB: Design-BUILD (design and construction phases awarded under one contract)

CST: Construction

INC: Contract Incentives

SUP: Construction Support

PCST: PARTIAL Construction (full construction funding beyond CIE is dependent upon other private funding sources, or is being combined with other public funding sources)

ENV: Environmental

ENH: Enhancement to Capacity Project

CEI: Construction Engineering and Inspection

CAP: Capital

TSM: TRANSPORTATION System Management (Intersection/Operations/Safety)

GRT: GRANT

TF: Transportation Fund

**** Formerly known as Williams East-West Road. Funded with American Recovery and Reinvestment Act (ARRA) award.**

Source: Adopted City of Lakeland CIP, Polk County CIP, FDOT Five-Year Work Program; (all FY 2010-2014) and relevant DRI Development Orders, Development Agreements, and Zoning Ordinance.

X. PUBLIC SCHOOL FACILITIES

INTRODUCTION

Planning for school facilities is one of the responsibilities of the local School Board. It was historically done in an isolated manner separate from the local government planning process. In order to facilitate better planning for the optimal distribution of schools, school planning should be coordinated within the context of the local government comprehensive planning process.

In 2005, the Florida Legislature amended s.163.3180, F.S., which ordered the implementation of public school concurrency. The new legislation requires that each local government adopt a Public School Facilities Element (PSFE) as part of its Comprehensive Plan and amend its Capital Improvement Element and Intergovernmental Coordination Element. The PSFE must address school level of service; school utilization; school proximity and compatibility with residential development; availability of public infrastructure; co-location opportunities; and financial feasibility. The intent of the legislation is to encourage counties, municipalities, and school boards throughout the state to work together to achieve concurrency.

The City of Lakeland in cooperation with the Polk County School Board, Polk County Government, and the 14 non-exempt cities in the Polk County School District coordinated the adoption of the Public School Facilities Element (PSFE) and associated amendments to the Intergovernmental Coordination and Capital Improvements Elements to ensure all local government comprehensive plan elements within the County are consistent with each other.

The following section presents a summarization of the district-wide data and analysis, found in the Support Document XI-Five of the Technical Support Document, which evaluates the existing and future condition of school facilities and includes the School Board's 5 year capital program for school facility improvements. The subsequent section discusses issues and opportunities related to the provision of public school facilities and the final section presents the goal, objective, and policy statements.

SUMMARY OF FINDINGS

Essential to the preparation of the Public Schools Facilities Element was an inventory and analysis of existing school facilities. The Polk County School Board maintains an extensive inventory and analysis of school district's existing school facilities up to date through periodic revisions of the inventory. The primary purpose for this extensive inventory of school facilities was to analyze how well the existing facilities meet present needs and how well it can be expected to meet future needs. This analysis examines the historic and current utilization of school facilities and level of service, projected student enrollment, funding for capital improvements, and 15 year capital outlay costs.

The following is a summary of the Polk County Public Schools Facilities Element Data and Analysis found in Support Document XI- Five of the Technical Support Document.

EXISTING CONDITIONS

Polk County has experienced unprecedented growth in recent years. According to population estimates from the Bureau of Economic and Business Research at the University of Florida (BEBR), Polk County has grown by 12 percent between 2001 and 2006. The growth rate of the County was actually greater than the state whose growth rate was 11 percent during the same period of time. This growth trend is anticipated to continue into the foreseeable future.

As a result of the growth occurring throughout Polk County, the School Board is challenged with providing sufficient classrooms to provide a quality education to ever increasing numbers of students. From the 2001-2002 school year to the 2006-2007 school year school enrollment in Polk County increased 12 percent, a rate of growth commensurate with total population growth during the same period of time. At the beginning of the 2006-07 school year, Polk County had 62 elementary schools, 15 middle schools, 14 high schools, 9 charter schools and 14 special education schools serving a total of 91,258 students.

District level analysis of the three different school levels (elementary, middle, and high) reveals that there is currently not sufficient capacity at the elementary level. According to Department of Education's standards for capacity on a district-wide basis, as of March 2007 Polk County high schools and middle schools are operating at 96 percent and 92 percent of their respective total permanent capacity (excluding portables/relocatables). At the same time the Polk County elementary schools have reported to be operating at 105% of permanent capacity per the Florida Inventory of School Housing or FISH methodology for measuring capacity.

FUTURE CONDITIONS

According to the Polk County School Board (PSCB), student enrollment based on 2006 levels is projected to increase 34.9% by 2015. This increase represents an additional 18,415 students to be served by Polk's school system. The 5-Year Program of Work is

the School Board's financially feasible capital facilities plan that schedules new construction and expansion projects to serve near term needs. To address the projected growth in the short term there are 4 new elementary schools to be opened in the 2007-08 school year and one high school. Three elementary schools currently are scheduled to open during the 2008-09 school year along with various classroom additions at existing schools. In the remaining two years of the 5-Year Program of Work there are planned 3 elementary schools, 2 middle schools, and one high school. In addition the 9th grade center concept may be pursued adding capacity of approximately 800 student stations to most local high schools. The School Board's 15-Year Capital Outlay Plan addresses long range facilities objectives based on anticipated funding from FY 2003 to FY 2018. This plan currently projects a budget of \$878,818,500 for capital costs. In addition to the School Board's capital facilities improvements, school concurrency mitigation measures are expected to help meet needs for additional capacity created by future residential development.

CAPACITY, UTILIZATION AND LEVEL OF SERVICE

According to the PCSB Educational Plant Survey, a school site should be adequate to address existing needs based on school programs and enrollment and to allow economical future expansion and development. The choice of sites for new schools is of critical concern in the overall development of a school facilities program. New sites should be located to minimize transportation and infrastructure costs and should be sized so that they provide adequate space for school buildings, stormwater retention, off street parking, queuing for parent and bus loading and unloading, and playground areas.

The Educational Plant Survey presents minimum space requirements based on program needs, pursuant to the Florida Administrative Code. The minimum space requirements include student capacity, student stations, gross square footage of buildings, and facilities utilization. Student capacity is the maximum number of students a school facility is designed to accommodate. A student station is the area necessary for a student to engage in learning activities and varies with particular types of activities. It is, simply put, a measure of the use of space in schools.

According to State criteria, student capacity in elementary schools can be equated to the number of student stations, since elementary school students are assigned to one classroom throughout the day. In secondary schools, however, students move from classroom to classroom depending on their subjects. Scheduling then becomes a factor in calculating capacity as well as the number of students and student stations. Therefore, 90% of total permanent student stations in middle schools and 95% in high schools are said to be available for purposes of determining permanent capacity at the post-elementary level.

According to the School Board's Educational Plant Survey, the typical or standard size for new elementary schools is 850 students. According to the survey, it is educationally and economically desirable for an elementary school to be large enough to justify a full

time principal, a librarian, and instructional and clerical services. In Polk County, the standard for middle schools is 1,200 student stations and the standard for high schools is 1,900 student stations. The School Board will consider and approve the optimum number of student stations for all schools that do not fall within one of the above categories of schools.

To guide its facilities planning efforts, the School Board has adopted the following minimum space requirements which are within or higher than those recommended by the State:

**TABLE XI-1
POLK COUNTY STANDARDS
SCHOOL CAPACITY, BY SCHOOL LEVEL**

SCHOOL LEVEL	TYPE OF USE	SPACE REQUIREMENT
Elementary Schools (Grades Pre-K – 5)	Student Capacity	850 (State: 600 – 800)
	Student Stations	850 (State: 600 – 800)
	Gross sq. ft.	123,006
	Utilization	100%
Middle Schools (Grades 6 – 8)	Student Capacity	1,080 (State: 900 – 1,080)
	Student Stations	1,200 (State: 1,000 – 1,200)
	Gross sq. ft.	188, 356
	Utilization	90%
High Schools (Grades 9 – 12)	Student Capacity	1,805 (State: 1,620 – 1,800)
	Student Stations	1,900 (State: 1,800 – 2,000)
	Gross sq. ft.	303,419
	Utilization	95%

The Polk County School District reports capacity to the Department of Education using the standards of the Florida Inventory of School Houses (FISH). FISH capacity is reported in a variety of ways including: permanent satisfactory student stations, satisfactory student stations assigned to relocatables (portables) and total capacity from permanent facilities and from portables.

For the purposes of implementing school concurrency, the Polk County School Board directed District staff to use permanent capacity as the principle method for measuring

the capacity of schools. Program capacity is based on the actual use of a school's space, taking into account special needs students and special programs that may or may not be counted as capacity (for example ESOL or English for Speakers of Other Languages class or computer labs). In some instances, specialized programs may be recognized as legitimate classroom uses and therefore may add capacity to FISH. In other instances, program capacity may reduce FISH capacity. If these factors are not considered when discussing capacity, the result may be a mistaken impression that classrooms are being under or over utilized. Thus while the analysis of school capacity and its impact on adopted LOS standards is ideally determined based on permanent capacity, program capacity would be a more conservative indicator of a school's ability to house students.

Where the Department of Education's FISH capacity is determined by formulas applied to each school's design, program capacity is a District-determined measure based upon the actual use of the school. However, program capacity measurement is a more accurate method of determining the true capacity of a school. Major capacity issues are constitutional class size limits, student educational needs, and staff scheduling. District staff analyzed the capacity of each school. For all schools, only the capacity of permanent facilities was considered. Finally, the capacity of schools was adjusted based on the planned addition of permanent and relocatable spaces over the five or ten year period corresponding to the long term concurrency program. Please see PSFE tables 6-17 in the supporting data and analysis found in the Technical Support Document.

ISSUES AND OPPORTUNITIES

There are several issues which must be considered in assuring the overall availability of public school facilities. Among the key issues to be considered are:

1. The implementation of a district-wide school concurrency management system requires extensive intergovernmental coordination between the School Board, County, and the 15 non-exempt cities within the district;
2. School concurrency mitigation will play an essential role in the ability to accommodate future residential development;
3. The provision of services and necessary infrastructure must be taken into consideration when planning and siting new school facilities;
4. The siting of new schools presents opportunities for the co-location and shared use of facilities that can meet the needs of different local agencies and benefit the community in an efficient manner.

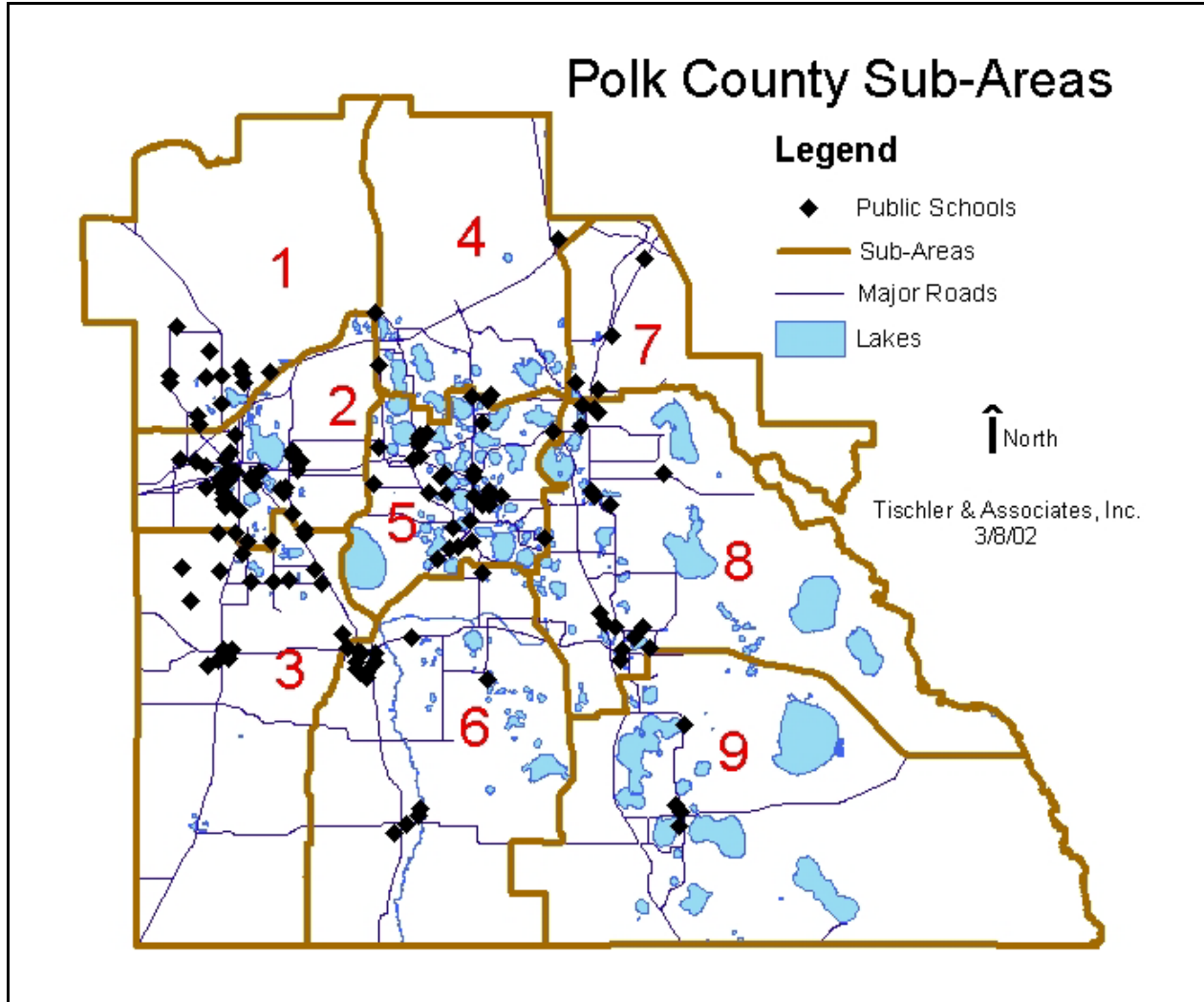
Giving consideration to each of these issues will help to ensure the maximum and efficient use of the School District's public school facilities.

INTERGOVERNMENTAL COORDINATION

Though the primary mission of any school district is education, the delivery of this service is tied to the planning profession through the need for and sharing of the analysis of population projections, school site selections, transportation and other infrastructure needs. Coordinating the planning for schools with City planning activity is important to ensure that not only are sufficient school facilities available, but that they function well within a given community. While the City of Lakeland has an extensive history of collaboration and coordination with the Polk County School Board, new challenges and opportunities will present themselves as limited resources are allocated to address the demand for schools in Polk County's rapidly growing urban areas.

To plan for the efficient distribution of school facilities based on the student populations disbursed throughout the County and its 17 municipal governments, nine planning areas were identified within the School District as shown in Illustration XI-1. The boundaries depicted represent aggregations of Census tracts and are intended to link population and housing projections with school enrollment. The Metro Lakeland Planning Area is within areas 1 and 3 and encompasses the entirety of area 2.

**ILLUSTRATION XI-1
SCHOOL DISTRICT AND PLANNING SUB-AREAS**



The implementation of a district-wide school concurrency management system requires an unprecedented level of intergovernmental coordination between the School Board, County, and the 15 non-exempt cities within the district. Per Florida Statute, the level of service standard through which concurrency is determined must be applied uniformly throughout the School District at a sub-district level within five years of the adoption of the Public School Facilities Element. The School Board, County and participating cities have agreed to apply concurrency at a sub-district level upon adoption of the Public School Facilities Element (PSFE). The PSFE will identify concurrency services areas (CSAs) that coincide with the school attendance zones. School attendance zones are geographic areas surrounding a school and are used to assign students living within them to a specific school. The school concurrency service areas often cross jurisdictional limits.

While local governments retain the authority to make land use decisions, the School Board will determine if schools have adequate capacity for proposed residential projects

that must meet school standards in order to be eligible to proceed to final development approval. At the time of residential development plan review the City will need to coordinate with the School Board to ensure adequate school capacity exists at the elementary, middle, and high school levels. Challenges are likely to present themselves when two neighboring local governments have separate residential projects that are competing for the same student space in a given concurrency service area. Conversely, where there are multiple development proposals that will impact a school facility the opportunity exists for collaborative mitigation of the impact in a cost feasible manner. As some areas grow faster than others rezoning of attendance zones may become an issue requiring coordination between the City, the School Board and other local governments. The Planners Working Group consisting of staff from Polk County, the Polk County School Board, Cities and the Central Florida Regional Planning Council was established pursuant to the Interlocal Agreement for Public School Facilities Planning to meet regularly in order to coordinate school facility planning issues including school concurrency.

SCHOOL CONCURRENCY MITIGATION OPTIONS

The concept of “concurrency” in Florida is associated with the provision of adequate facilities that will be available at the same time as, or concurrent with, new development. Its earliest application occurred in the context of Developments of Regional Impact (DRI's) and through the use of regulatory concurrency established by the Growth Management Act of 1985. The City of Lakeland also adopted a proportionate share program for transportation facilities in late 2006. The concept of concurrency and mitigation for facility impacts will now be applied to schools to address the school capacity demand created by rapid residential development.

School concurrency and mitigation must be financially feasible to proceed with development. Where residential growth outstrips the School Board's ability to construct sufficient school facilities for new students, school facility mitigation agreements will begin to play a greater role in the City's concurrency review process.

School facility concurrency mitigation allows for the donation, construction, or funding of school facilities sufficient to offset the demand created by the proposed development. A proposed developer contribution must result in a capacity enhancement included in the School Board's 5-Year Program of Work, which will result in sufficient school capacity to accommodate the new development. In the event that a current 5-Year Program of Work does not include improvements, the developer(s) may petition the school district and affected local governments to include necessary school facilities within an update to the 5-Year Program of Work. Notably, mitigation for school concurrency may assist in advancing school facility capacity projects identified in the fourth and fifth year of the program of work. School concurrency mitigation will entail a three way agreement between the School Board, the developer, and the relevant local government(s).

SCHOOL FACILITIES SITING AND THE PROVISION OF SERVICES AND INFRASTRUCTURE TO NEW FACILITIES

The City has actively participated as a member of the Polk County School Site Selection Committee for the purpose of siting future schools in the Lakeland Planning Area. A site selection process was established in the Interlocal Agreement for School Facilities Planning outlining criteria for the selection of a school site. All applicable cities in the Polk County School District have the opportunity to submit a candidate site for selection when the need for new school sites occurs. The City's Community Development Department will have the opportunity to consider potential sites and the need for future sites as part of its land use and development review process. When a land contribution for a school site is considered for concurrency, and mitigation is involved in a new residential development proposal, the City may assist developers in identifying the appropriate school sites and potential co-located uses.

The provision of services and infrastructure such as water, sewer, sidewalks and roads to new facilities where they do not already exist must be considered during the school site selection and planning process. The expense of providing these services and infrastructure can be an obstacle to siting new facilities. When possible the City should encourage the School Board to locate school facilities near urban residential areas where public infrastructure and services exist through its participation on the School Siting Committee. At the same time, the City's planning of utility line extensions, new roads or road improvements, and sidewalks should take into consideration the proximity and relation to existing and planned school facilities.

CO-LOCATION & SHARED USE FACILITIES

An important issue in planning public facilities is cooperation with other entities responsible for the provision and planning of similar facilities. The City of Lakeland should continue to work closely with the School Board to maximize opportunities for co-location and shared use. Opportunities may exist to co-locate schools with compatible community public facilities. For example, opportunities for co-location and shared use should be considered for libraries, parks, recreation facilities, community centers, stadiums, health centers, and various cultural, social, civic or institutional uses. Schools can likewise benefit from adjacent parks, health centers or other civic uses. In addition, where applicable, opportunities for co-location and shared use of school and governmental facilities for health care and social services should also be considered. Co-location and joint use of the School Board and local government facilities of community based programs with school facilities can benefit the quality of life of a community, while also providing a cost effective way to make available public services. Successful neighborhoods often include schools, parks and other civic uses within their boundaries bringing parents and other residents together in common activities or for a common purpose.

The development of Lake Bonny Park is an example of the City's past efforts to co-locate facilities with the School Board. This park serves Lakeland Senior High School

(LHS), but primarily serves the public. Lake Bonny Park includes a concessions building and three athletic field areas, one each for soccer/football, baseball and softball. A boardwalk near the wetlands and lakeshore are also provided, as well as picnic and playground area. A joint-use agricultural center/greenhouse was constructed to teach Lakeland High School students plant nursery and animal husbandry skills. Special arrangements for use of the athletic field areas for LHS sports allow the park to function as an expanded athletic field for a school campus that is otherwise constrained.

In addition, the School Board uses other City facilities for football, swimming and other activities at the two City pool and recreation complexes, Bryant Stadium, Henley Field and several neighborhood parks. The City also uses school facilities for its summer recreation program for local youth. The use of formal or informal joint use agreements will help to offset the increased recreation demand of the area's growing population. These efforts should be continued and expanded to assist in meeting future needs of the community.

Identifying opportunities for co-location and shared use of school and civic facilities will require cooperation between the City and School Board when annually updating the School Board's Five Year Program of Work and the City's comprehensive plan schedule of capital improvements. Such cooperation will also require planning and designing new, or renovating existing schools and community facilities. Typically agreements between the City and School Board must address legal liability, operating and maintenance costs, scheduling of use, and facility supervision for each instance of co-location and shared use.

GOALS, OBJECTIVES, AND POLICIES

The following goal, objective, and policy statements have been developed for the use of local policy makers in guiding and directing the decision making process as it relates to public school facilities issues. For purposes of definition, the goal is a generalized statement of a desired end state toward which objectives and policies are directed. The objectives provide the attainable and measurable ends toward which specific efforts are directed. The policy statements are the specific recommended actions that the City of Lakeland will follow in order to achieve the stated goal.

The goal, objective, and policy statements in the Public School Facilities Element of the Lakeland Comprehensive Plan are consistent with the requirements of Chapter 163, Florida Statutes and the other elements of this plan and with the goals and policies of the Central Florida Comprehensive Regional Policy Plan.

GOAL 1: Coordinate with the Polk County School Board ("School Board") and other jurisdictions to ensure quality educational facilities and superior educational opportunities which in turn encourages economic growth for individuals, families and communities in Lakeland and Polk County.

Objective 1-A: The City of Lakeland shall implement the approved Interlocal Agreement for Public School Facility Planning (hereafter referred to as the Interlocal Agreement) as amended to maximize opportunities to share information.

Policy 1-A1: The City of Lakeland shall meet at least annually with the School Board and other jurisdictions to review issues related to the Public School Facilities Element and the Interlocal Agreement and to determine the need to revise these documents.

Policy 1-A2: The Planners Working Group as established in the Interlocal Agreement shall meet at least twice a year to set direction, plan for the annual meeting as described in Policy 1-A1, formulate recommendations and discuss issues related to this element and the Interlocal Agreement as well as ancillary infrastructure improvements needed to support schools and ensure safe access to school facilities.

Policy 1-A3: The City of Lakeland shall coordinate with the School Board and other jurisdictions to base plans on consistent projections, including population projections that are developed in coordination with the School Board, and student enrollment projections district-wide and by planning areas which are agreed upon by the Planners Working Group. The School Board's student enrollment projections shall consider the impacts of development trends and data required to be reported in accordance with the Interlocal Agreement.

Policy 1-A4: The City of Lakeland shall at least annually report on growth and development trends within its jurisdiction to the School Board. The City shall provide the information as specified in the Interlocal Agreement. The School Board will use the information to distribute student enrollment by concurrency service area to make the most efficient use of public school facilities.

Policy 1-A5: Support School Board efforts to identify long-range school site needs and select sites based on the criteria established in this element and the Interlocal Agreement.

Policy 1-A6: The City of Lakeland shall seek and consider School Board comments on relevant comprehensive plan amendments and other land use decisions which may impact schools, as provided for in Florida Statute.

Policy 1-A7: The City of Lakeland shall review their annually updated copy of the Polk County School Board's Five Year Program of Work and other reports from the School Board including a general educational facilities report with information outlined in the Interlocal Agreement.

Policy 1-A8: The City of Lakeland shall appoint a representative selected by the School Board to serve at a minimum as an ex-officio member of their local planning agency.

Objective 1-B: Encourage partnerships that will ensure adequate educational facilities which in turn will encourage economic growth and provide for a trained and stable labor force, resulting in a higher quality of life.

Policy 1-B1: Support and encourage community and business partnerships for educational support services, to include, but not be limited to, magnet programs, work training, and job placement in order to improve productivity, earning potential, standard of living, and retention of labor force.

Policy 1-B2: Consider the economic impact of school locations on neighborhoods such as, but not limited to the following factors: infrastructure, property and housing values, as well as surrounding land uses.

Policy 1-B3: Encourage public/private partnerships between schools, business community, and other employers through mentoring programs, and Adopt-A-School programs with employees.

Objective 1-C: The City shall establish new and review existing coordination mechanisms relating to school facility planning that evaluate and address the comprehensive plan's effects on adjacent local governments, the school board, and other units of local government providing services but not having regulatory authority over use of land and the State.

Policy 1-C1: The City shall cooperate with the School Board and other local jurisdictions to implement the Interlocal Agreement, as required by Section 1013.33, Florida Statutes, which includes procedures for:

- (a) Coordination and Sharing of Information
- (b) Planning Processes
- (c) School Siting Procedures
- (d) Site Design and Development Plan Review
- (e) School Concurrency Implementation
- (f) Implementation and Amendments
- (g) Resolution of Disputes

Policy 1-C2: The coordination of school siting shall be conducted in accordance with the Interlocal Agreement taking into consideration the needs identified in the current School Board Five Year Program of Work and the annual general education facilities report.

Policy 1-C3: In order to coordinate the effective and efficient provision and siting of public educational facilities with associated infrastructure and services within the Polk County School District, the City, the School Board and all local governments within Polk County shall meet jointly to develop mechanisms for coordination. Such efforts may include:

- (a) Coordinated submittal and review of the annual capital improvement program of the City, the annual educational facilities report and Five Year Program of Work of the School Board.
- (b) Coordinated review and assessment of the associated costs and expenditures of siting and developing schools with needed public infrastructure.
- (c) Coordinated review of residential planned developments or mixed use planned developments involving residential development.
- (d) Use of a unified data base including population (forecasts of student population), land use and facilities.
- (e) Assistance from Polk Leisure Services (with representatives from each of the entities) to review coordinated siting of schools with parks for multi-functional use. Directives resulting from the joint meeting shall be incorporated into the Comprehensive Plan, Land Development Regulations, if applicable, or other appropriate mechanisms as deemed necessary.

GOAL 2: The City will implement public school facilities concurrency uniformly with other local jurisdictions in order to ensure the availability of public school facilities consistent with an adopted level of service providing adequate school capacity and eliminating overcrowded conditions in existing and future schools.

Objective 2-A: Establish a minimum level of service for schools and consider school capacity within development impact reviews, e.g. for Planned Developments, re-zoning requests, site plans, DRIs, or where there are specific development plans proposed.

Policy 2-A1: The City shall establish development plan review procedures with an effective date of March 1, 2008 for all residential and mixed use development proposals in order to implement school concurrency.

Policy 2-A2: The long term target for Polk County Schools shall be 100% of permanent student stations capacity (PSSC) based upon the State Requirements for Education Facilities (SREF).

Policy 2-A3: The City shall collaborate with the School Board to identify methods to achieve targeted utilization that include:

- (a) Improvements to existing school facilities (shared facilities, redistricting, expansion or remodeling, etc.)
- (b) Retrofitting of existing structures
- (c) New school construction
- (d) Encouraging multi-story school facilities in an urban environment
- (e) Exploring re-use of former non-residential centers as potential urban school sites.

Objective 2-B: Through its review of proposed development, the City shall ensure that the capacity of schools is sufficient to support students at the adopted level of service (LOS) standards within the period covered by the Five Year Program of Work. These standards shall be consistent with the Interlocal Agreement.

Policy 2-B1: The City shall apply the LOS standards set forth herein consistently with all local jurisdictions and the School Board on a district-wide basis within the adopted concurrency service areas for each school type.

Policy 2-B2: Consistent with the Interlocal Agreement, the uniform, district-wide level-of service standards are established as a percent of permanent Florida Inventory of School Houses (FISH) capacity. Permanent capacity cannot be increased by adding relocatables. The LOS standards are set as follows:

Facility Type	2008-09	2009-10	2010-11	2011-12	2012-13
Elementary	122%	122%	115%	100%	100%
Middle	113%	113%	110%	100%	100%
High School	110%	110%	105%	100%	100%

- (a) Magnet and School of Choice: One hundred percent (100%) of enrollment quota as established by the School Board or court ordered agreements and as adjusted by the school board annually.
- (b) Other: K-8, 6th grade centers, 9th grade centers, 6-12 are at one hundred percent (100%) of permanent DOE FISH capacity
- (c) Special Facilities: Including alternative education or special programmatic facilities are designed to serve the specific population on a countywide basis or for temporary need and are not zoned to any specific area. Therefore, they are not available or used for concurrency determinations.
- (d) Conversion Charter Schools: The capacity is set during contract negotiations and the School Board has limited control over how many students the schools enroll.

Policy 2-B3: Where schools operate below their respective LOS standard their facility needs should be addressed in the School Board's Five Year Program of Work. Facility needs which cannot be addressed by the Five Year Program of Work would require a long-term concurrency management program to be adopted by the School Board.

Policy 2-B4: The City shall coordinate with the School Board to achieve an acceptable LOS at all applicable schools as part of the School Board's financially feasible Five Year Program of Work concurrency management program. The student population shall not exceed the core dining capacity at any time.

Objective 2-C: The City, in coordination with other jurisdictions and the School Board, shall establish School Concurrency Service Areas within which a determination is made of whether adequate school capacity is available based on the adopted level of service standards.

Policy 2-C1: The School Concurrency Service Areas (CSAs) for the Polk County School District, as agreed in the Interlocal Agreement, shall be school attendance zones (excluding attendance "spot zones"). When a proposed adjustment to the established school attendance zones is to be considered by the School Board, the City shall coordinate with the School Board and strive to provide technical and public input prior to an official public hearing. The school attendance CSAs are hereby adopted by reference and included in the Public Schools Facility Element data and analysis (found in the Technical Support Document).

Policy 2-C2: Concurrency service areas shall be established and subsequently modified to maximize available school capacity and make efficient use of new and existing public schools in accordance with the level of service standards, taking into account minimizing transportation costs, limiting maximum student travel times, the effect of desegregation plans, achieving socioeconomic and diversity objectives as required by the Florida Department of Education, and recognizing the capacity commitments resulting from the local governments' development approvals for the CSA and for contiguous CSAs.

Policy 2-C3: Concurrency service areas shall be designed so that the adopted level of service will be able to be achieved and maintained within the bounds of the School Board's requirement for a financially feasible five year capital facilities plan.

Objective 2-D: In coordination with the School Board, the City will establish a process for implementation of school concurrency which includes capacity determinations and availability standards. The City shall manage the timing of residential subdivision approvals and site plans to ensure adequate school capacity is available consistent with adopted level of service standards for public school concurrency.

Policy 2-D1: Final subdivision and site plan approvals for residential development shall be conditioned upon the availability of adequate school capacity as per the adopted level of service standards (LOS) of this element and as required by Section 163.3180(13) F.S.

Policy 2-D2: School concurrency shall apply only to residential development or a phase of residential development that generates students requiring a final development approval including subdivision plat approval, site plan, or its functional equivalent, proposed or established after the effective date of this element.

Policy 2-D3: The City shall prepare a report on the development projects not subject to school concurrency at the time of the adoption of the Public School Facilities Element.

Policy 2-D4: The City, in consultation with Polk County School Board staff, will develop and adopt land development regulations which establish application procedures and processes for evaluating school capacity and making concurrency determinations consistent with the Interlocal Agreement.

Policy 2-D5(a): The City may provide a non-binding schools concurrency decision earlier in the approval process, such as at the time of preliminary plan approvals, if requested by the applicant. The School Board must approve the concurrency determination, allocations of capacity, and proportionate share mitigation commitments, as provided herein.

Policy 2-D5 (b): School concurrency decisions should support and not be in conflict with the local goals and objectives of the comprehensive plan regarding growth management, as articulated in the other elements of the local comprehensive plan.

Policy 2-D6: The City will issue a concurrency determination based on the School Board's concurrency review findings and recommendations consistent with the Interlocal Agreement. The School Board's findings and recommendations shall address whether adequate capacity exists for elementary, middle, and high schools, based on the level of service standards, or if adequate capacity does not exist, whether

appropriate mitigation can be accepted, and if so, acceptable options for mitigation consistent with the policies set forth herein.

Policy 2-D7: The City shall only issue a concurrency approval for a subdivision plat or site plan for residential development where:

- (a) The School Board's findings indicate adequate school facilities will be in place or under actual construction within three (3) years after the issuance of the subdivision plat or site plan for each level of school;
- (b) Adequate school facilities are available in the relevant CSA or adjacent CSA where the impacts of development can be shifted to that area; or
- (c) The developer executes a legally binding commitment to provide mitigation proportionate to the demand for public school facilities to be created by the actual development of the property subject to the final plat or site plan.

Policy 2-D8: In the event that there is not sufficient capacity in the affected concurrency service area based on the adopted level of service standard to address the impacts of a proposed development, and the availability standard for school concurrency cannot be met, one of the following shall apply:

- (a) The project shall provide capacity enhancement(s) sufficient to meet its impact through school board approved mitigation; or,
- (b) The project shall be delayed to a date when the level of service can be ensured through capital enhancement(s) or planned capacity increases; or,
- (c) A condition of approval of the subdivision or site plan shall be that the project's impact shall be phased and each phase shall be delayed to a time when capacity enhancement and level of service can be ensured; or,
- (d) The project shall not be approved.

Policy 2-D9: If the impact of the project will not occur until years 2 or 3 of the School Board's financially feasible Five Year Program of Work, then any relevant programmed improvements in those years shall be considered available capacity for the project and factored into the level of service analysis. If the impact of the project will not be felt until years 4 or 5 of the Five Year Program of Work, then any relevant programmed improvements shall not be considered available capacity for the project unless funding of the improvement is ensured through School Board funding to accelerate the project, through proportionate share mitigation, or some other means.

Objective 2-E: The City shall allow for mitigation alternatives that are financially feasible and will achieve and maintain the adopted level of service standard consistent with the adopted School Board's financially feasible Five Year Program of Work.

Policy 2-E1: Mitigation shall be allowed where the adopted level of service standards cannot be met. Mitigation options shall include options listed below for which the School District assumes operational responsibility through incorporation in the adopted School Board's financially feasible Five Year Program of Work and which will maintain adopted level of service standards.

- (a) The donation, construction, or funding of school facilities sufficient to offset the demand for public school facilities created by the proposed development; and,
- (b) The creation of mitigation banking based on the construction of a public school facility in exchange for the right to sell capacity credits.

Policy 2-E2: Mitigation shall not be required if the needed capacity for the development is available in one or more contiguous concurrency service areas and the impacts of the development can be shifted to that concurrency service area and where such is consistent with the other provisions of this Element.

Policy 2-E3: Mitigation shall be directed to permanent capacity improvement projects on the School Board's financially feasible Five Year Program of Work that will satisfy the demand created by that development approval consistent with the adopted level of service standards, and shall be assured by a legally binding development agreement between the School Board, the City, and the applicant executed prior to the issuance of the subdivision plat or the site plan as required by the local government. If the School Board agrees to the mitigation, the School Board must commit in the agreement to placing the improvement required for mitigation in its Five Year Program of Work in a timely manner. However, if a new development triggers the need for additional capacity which can only be met by a new school and such new school would not otherwise be needed for more than five years, the mitigation agreement shall not trigger concurrency nor a change to the Five Year Program of Work Plan until the time at which conditions for the agreement are acceptable to the School Board. The development agreement shall include the landowner's commitment to continuing renewal of the development agreement upon its expiration. Relocatable classrooms will not be accepted as mitigation.

Policy 2-E4: The amount of mitigation required for each school level shall be determined by multiplying the number of new student stations required to serve the new development by the average costs per student station applicable to the Polk County School District. The average cost per student station shall include school facility development costs and land costs.

Policy 2-E5: As provided in the Interlocal Agreement, the student generation rates used to determine the impact of a particular development application on public schools, shall be reviewed and updated as apparent and necessary in accordance with professionally accepted methodologies at a minimum of five (5) years.

Objective 2-F: The City, in coordination with the School Board and other jurisdictions, shall ensure existing deficiencies and future needs are addressed consistent with the adopted level of service standards for public schools.

Policy 2-F1: The City, in coordination with other jurisdictions, shall ensure that future development pays a proportionate share of the costs of the capital facility capacity needed to accommodate new development and to assist in maintaining

adopted level of service standards, via impact fees and other legally available and appropriate methods in development conditions.

Policy 2-F2: The City hereby incorporates by reference the School Board's financially feasible Five Year Program of Work

Policy 2-F3: Where feasible, the City shall work with developers and others to investigate the feasibility of new or alternative funding sources for additional public schools.

GOAL 3: Partner with the school board and other jurisdictions to promote schools as focal points of existing and future neighborhoods through siting for new schools, redevelopment of existing school facilities, and co-location and shared use of facilities and services.

Objective 3-A: The City, in collaboration with the School Board and other jurisdictions, shall provide for the location and expansion of existing schools in a coordinated manner ensuring the planning, construction, and opening of educational facilities are coordinated in time and place, concurrent with necessary services and infrastructure, and compatible and consistent with the Comprehensive Plan.

Policy 3-A1: The City will provide the School Board with potential sites for consideration when notified by the School Board of the need for new school facilities in accordance with the Interlocal Agreement.

Policy 3-A2: The City will coordinate with the School Board to ensure that proposed public school facility sites are consistent with the applicable land use categories and policies of the comprehensive plan and will consider each site as it relates to environmental, health, safety and welfare concerns, effects on adjacent property and other guidelines as outlined in the Interlocal Agreement.

Policy 3-A3: The City shall coordinate with the School Board and other jurisdictions on the planning and siting of new schools facilities to ensure appropriate timing of necessary services and infrastructure and that such sites are compatible and consistent with the Comprehensive Plan.

Policy 3-A4: The City will include sufficient allowable land use designations for schools approximate to residential development to meet the projected needs for schools. Schools are an allowable land use in all future land use plan categories, except heavy industrial and conservation or preservation type land uses designating environmentally sensitive areas. The City shall clearly identify in the Future Land Use Element and Land Development Regulations the land use and zoning categories in which schools are allowable uses.

Policy 3-A5: The siting of new schools within the Green Swamp Area of Critical State Concern (ACSC), by definition an environmentally sensitive area for all of Central

Florida, shall be prohibited within the City and unincorporated Polk County except in what the County refers to as the Urban Development and Urban Growth Areas (UDA and UGA respectively) within the Polk City and the Ridge Special Protection Areas.

Policy 3-A6: The City will collaborate with the School Board and other jurisdictions to jointly determine the need for and timing of on-site and off-site improvements necessary to support each new school or the proposed renovation, expansion or closure of an existing school, and will enter into a written agreement, if necessary, as to the timing, location, and the party or parties responsible for constructing, operating and maintaining the required improvements.

Policy 3-A7: The City shall protect schools from the intrusion of incompatible land uses by providing the School Board representatives the opportunity to participate in the review process for all proposed developments adjacent and in proximity to schools.

Policy 3-A8: The preferred locations for public schools, whether elementary, middle or high schools are within the Urban Service Areas for utility services and expansions.

Policy 3-A9: The City shall automatically process amendments to the Future Land Use Map upon the approval of a new school site, where necessary. The processing of any amendments shall be at no cost to the School Board.

Policy 3-A10: The City shall participate in the School Site Selection process following the terms and limitations established in the Interlocal Agreement.

Policy 3-A11: The City shall collaborate with the School Board and other jurisdictions to ensure the provision of supporting infrastructure as required by the Interlocal Agreement and applicable Florida Statutes.

Policy 3-A12: The City shall establish an effective process for reserving, with conceptual School Board staff approval, school sites which could include:

- (a) Consideration of school siting during the completion of area wide studies,
- (b) Developer contribution towards the provision of school facilities.

Objective 3-B: Enhance community and neighborhood design through effective school educational facility design, school siting standards, compatibility with surrounding land uses, schools as focal points for community planning, and making schools a central component, geographically or otherwise, to neighborhood-level planning.

Policy 3-B1: Work with the School Board to identify new school sites that would be in locations to provide logical focal points for community activities and serve as the cornerstone for innovative urban design standards.

Policy 3-B2: Provide school sites and facilities within planned neighborhoods, unless precluded by existing development patterns.

Policy 3-B3: Support and encourage the location of new elementary and middle schools internal to residential neighborhoods and/or near other civic land uses, within the limits of School Board mandated desegregation.

Policy 3-B4: Coordinate with the School Board to identify locations for new high schools based upon need and availability of viable properties within the search area identified by the School Board.

Policy 3-B5: Support and coordinate with School Board efforts to locate new elementary schools within reasonable walking distance to residential neighborhoods.

Policy 3-B6: In cooperation with the School Board, and where necessary, develop and adopt design standards for school bus stops and turnarounds in new developments.

Policy 3-B7: Support the School Board in its efforts to locate appropriate school services, such as administrative offices, night classes and adult education on-site or in alternative locations, such as but not limited to commercial plazas, shopping malls, and community centers.

Policy 3-B8: The City shall coordinate closely with School Board staff on preliminary design plans for new schools, generally seeking to maximize land via multi-story facilities, incorporating design elements which are community-friendly such as allowing for a shared media and/or meeting center and/or play fields on campus, respecting environmental features of a site, respecting the need to provide noise or visual buffers from adjacent owners, providing connectivity for pedestrians at multi-school properties, and providing pedestrian, bicycle and other connectivity to the surrounding residential community.

Policy 3-B9: Reduce capital expenditures for the City and the School Board via cost-effective design criteria and shared facilities.

Objective 3-C: Plan for the expansion and/or rehabilitation of existing school facilities to maintain and improve neighborhoods and communities.

Policy 3-C1: Where existing schools are proposed to be expanded, substantially renovated or new schools are proposed to be built, the City shall request that school board staff, local school-based faculty, and advisory councils coordinate with County staff and relevant neighborhood groups/leaders, and residents to integrate school facilities and activities with neighborhood planning and community development activities.

Policy 3-C2: Coordinate with the School Board, Florida Department of Transportation (FDOT), the Transportation Planning Organization (TPO), and other jurisdictions to ensure that both existing educational facilities and proposed public school sites are accessible from, and integrated into, a planned system of sidewalks,

trails, and bikeways and observe adopted local access management principles. Seek or assist the School Board in pursuing grant funding to enhance access and intermodal connectivity to and between schools, their co-located facilities, neighborhoods, and proximate community facilities such as parks.

Objective 3-D: Implement provisions of the Interlocal Agreement by coordinating the location of educational facilities and the co-location of other public facilities.

Policy 3-D1: The City will review future school and ancillary facility plans and identify opportunities for future co-location or joint use projects. The School Board will be notified of potential projects in a timely manner.

Policy 3-D2: Encourage the location of parks, recreation and community or civic facilities in new and existing communities in conjunction with school sites. Seek out other co-location and joint use opportunities as outlined in the Interlocal Agreement that will benefit existing neighborhoods or redevelopment efforts.

Policy 3-D3: Where financially feasible, the City will provide funding within its Capital Improvements Element to allow for identified and potential co-location projects.

Objective 3-E: Strengthen existing neighborhoods and enhance community and neighborhood design through the co-location and joint use of educational facilities.

Policy 3-E1: The City, in cooperation with the School Board and other jurisdictions, shall whenever possible coordinate the co-location and shared use of school facilities, parks, community facilities, and other facilities compatible with schools.

Policy 3-E2: The City and other jurisdictions in cooperation with the School Board shall jointly plan jurisdictional co-location or joint use projects which overlap boundaries within areas defined for civic purposes. Civic uses near or adjacent to schools shall be a preferred land use in regard to land use decision making.

Policy 3-E3: Continue to exercise joint use agreements between the School Board, the City, and other relevant agencies regarding shared use of facilities, including schools, community centers, libraries, parks, and other compatible facilities. Agreements shall include shared costs where feasible.

Policy 3-E4: Support and encourage community-based programs for children's athletics, performing arts, and after-school enrichment in conjunction with school facilities. This may include exploring and supporting economically feasible multi-modal transportation system options that will enhance such opportunities.

Policy 3-E5: Each year upon adoption of the School Board's Five Year Program of Work, and as coordinated by Polk County and the School Board, the City will participate in meetings of relevant agencies to discuss planning and budgeting for possible co-located facilities. This coordination may include staff from the affected local

government's planning, parks and recreation, library, law enforcement, civic groups, and other agencies as necessary. The coordination will focus upon financially feasible co-location opportunities which may exist prior to commencement of school construction.

Policy 3-E6: Encourage the business community, developers, and other private organizations to coordinate with the City and the School Board to jointly fund and design community-based services and facilities in conjunction with existing and proposed school sites.

GOAL 4: Maintain and enhance intergovernmental coordination and joint planning efforts with the school board and other jurisdictions to ensure public infrastructure and other necessary services are available in a multi-jurisdictional environment for public school facilities.

Objective 4-A: Integrate land use and school facility planning in Lakeland through a series of planning, coordination and implementation activities which ensure capital facilities and infrastructure necessary for school facilities are available to public schools.

Policy 4-A1: Through development review processes, consider the possible need for expansion of existing school facilities or the provision of new facilities with land use planning.

Policy 4-A2: Develop a process for an annual joint review of the capital plans for the school board and the local government.

Policy 4-A3: Plan and locate new school facilities in areas where student population growth is expected due to new development approvals and/or agreed-upon area specific population projections.

Policy 4-A4: The County, in conjunction with the School District and the municipalities within the County, shall identify issues relating to public school emergency preparedness, such as:

- (a) The determination of evacuation zones, evacuation routes, and shelter locations.
- (b) The design and use of public schools as emergency shelters.
- (c) The designation of sites other than public schools as long-term shelters, to allow schools to resume normal operations following emergency events.

Objective 4-B: Support School Board programs to effectively and efficiently manage existing capital and operational funds and resources.

Policy 4-B1: The City shall cooperate with the School Board and other local jurisdictions and agencies to address and resolve multi-jurisdictional public school issues.

Policy 4-B2: Support School Board efforts to ensure sufficient capacity and operational resources for current and future school enrollment by partnering in the identification of capital needs, operational needs, and available funding sources for various campuses and school programs.

Policy 4-B3: Support the School Board and encourage the State Legislature to allow flexibility in state, local and private sector participation in capital and operational funding of public school facilities.

Policy 4-B4: Give priority in scheduling County programs and capital improvements which are consistent with and which meet the capital needs identified in the school facility planning program(s).

Policy 4-B5: Coordinate with the School Board to ensure the appropriate methodology (i.e. student generation rates) is utilized to evaluate the impact of different types of residential units on student populations, school facilities, and fiscal impacts to schools.

Policy 4-B6: Consider joint funding for expanding appropriate school facilities to function as community service centers.

Policy 4-B7: Encourage the private sector to identify and implement creative solutions in developing adequate school facilities in residential developments. Creative solutions may include combining mitigation needs of several developments, creating or enhancing co-location opportunities, and/or conversion of structures to a school setting as long as they meet State Requirements for Educational Standards (SREF).

Policy 4-B8: The City in consultation with the School Board on a case-by-case basis shall consider incentives such as, but not limited to, density bonus points, tax credits, waiver of fees or other innovative means to encourage developers to contribute to the provision of school facilities by:

- (a) donating school site(s),
- (b) reserving or selling sites at pre-development prices,
- (c) constructing new facilities or renovating existing facilities, and
- (d) providing access to public transit.

Policy 4-B9: Support School Board efforts to allow the private sector to construct school facilities and/or lease land or facilities to the School Board.

Policy 4-B10: The City shall identify infrastructure projects within the City's Capital Improvement Program which will permanently or temporarily impact an existing campus due to proximity or serviceability to a campus.

GOAL 5: Monitoring, evaluation, and implementation

Objective 5-A: The City shall implement the objectives and policies of the Public School Facilities Element in coordination with the School Board and other local governments.

Policy 5-A1: The City Administrator, or designee, shall be responsible for implementing the educational facilities objectives and policies included in the City Comprehensive Plan.

Policy 5-A2: The City shall adopt development regulations as necessary to implement the objectives and policies of the Public School Facilities Element.

Policy 5-A3: The City shall maintain intergovernmental agreements with other local governments in order to attain common objectives within the Public School Facilities Element.

Policy 5-A4: The City shall establish contact with other governmental agencies and private organizations, as needed, to carry out Public School Facilities Element objectives and policies.

Policy 5-A5: The City shall revise permitting or permit-related procedures, as necessary, to carry out the objectives and policies of the Public School Facilities Element.

Policy 5-A6: The City shall develop and implement programs or methodology, and conduct any studies required by the Public School Facilities Element.

Policy 5-A7: The City shall determine from the School Board the inventories required by the Public School Facilities Element.

Policy 5-A8: The City shall continue to enforce existing regulations where specified within the Public School Facilities Element.

Policy 5-A9: Any conflicts related to issues covered by the Public School Facilities Element and Interlocal Agreement shall be resolved in accordance with governmental conflict resolution procedures specified in Florida Statute.

XI. MONITORING & IMPLEMENTATION

Section 9J-5.005 (7), Florida Administrative Code requires that the Comprehensive Plan contain a section identifying ongoing monitoring, updating and evaluation procedures to be followed over the planning period. This section is required to address:

- (a) A description of the public participation process used by the local government in preparing the report;
- (b) Updating appropriate baseline data and measurable objectives to be accomplished in the first five-year period of the plan, and for the long-term period;
- (c) Accomplishments in the first five-year, seven-year, ten-year, or twelve-year reporting period, describing the degree to which the goals, objectives and policies have been successfully reached;
- (d) Obstacles or problems which resulted in underachievement of goals, objectives, or policies;
- (e) New or modified and reformulated goals, objectives, or policies needed to correct discovered problems;
- (f) A means of ensuring continuous monitoring and evaluation of the plan during the five-year period;
- (g) The extent to which unanticipated and unforeseen problems and opportunities occurred between the date of adoption and the date of the report;
- (h) The effect on the comprehensive plan of changes to: Chapter 187, F.S., the state comprehensive plan Chapter 163, Pt. II, F.S.; the minimum criteria contained in Chapter 9J-5, F.A.C.; and the appropriate strategic regional policy plan;
- (i) The major problems of development, physical deterioration, and the location of land uses and the social and economic effects of such uses in the area;
- (j) The identification of any actions that are taken or need to be taken to address the planning issues identified in the report; and
- (k) Proposed or anticipated plan amendments necessary to address or implement the identified changes.

Items C-K were addressed in the City's 1998 adopted Evaluation & Appraisal Report (EAR), particularly in Volume Two. Item B, updating of baseline data, was also primarily accomplished in the City's EAR, Volume One, with some additional updating presented in the updated draft elements, i.e. the EAR-based amendments. The capacity to monitor depends upon what is being monitored and staff resources. If the item is already something the City staff tracks on an annual or some periodic basis, the monitoring is more "continual". Funding of capital projects is adjusted annually in the CIE and 5-year Capital Improvements Program. Building permit records are tracked at least annually. If the item or task is very labor intensive, it will occur less often, such as an update to the existing land use map or the survey of the condition of the City's housing stock. With the advent of GIS mapping and computerization of data inventories, more frequent tracking/monitoring is possible for some types of data. In terms of implementation, between 2000 and 2002 as the City adopts its 2000 - 2010 Plan elements, staff will attempt to create a spreadsheet to track date sensitive objectives or policies in the Plan and assign tasks as needed.

This monitoring, updating and evaluation procedure should prove an effective tool in measuring plan implementation. In addition, it should provide ongoing documentation useful in preparation of the City's next required Evaluation and Appraisal Report, due to be adopted in 2008.

CITIZEN PARTICIPATION

Both State law and good planning practice call for effective citizen participation in the development or updating of a comprehensive plan. The City of Lakeland has a long and successful history of citizen involvement in planning, as well as other local government issues. On February 15, 1988 the Lakeland City Commission adopted a formal Public Involvement Process to assure that the 1991 Comprehensive Plan reflected the desires of the citizens of Lakeland. The process allowed citizens the opportunity to have input through:

1. The Citizens Advisory Committee (CAC);
2. Public neighborhood meetings;
3. Public workshops and hearings before the City Commission;
4. Public workshops and hearings before the Planning and Zoning Board;
5. Questionnaires distributed to the public by planning staff;
6. Written comments; and,
7. Staff meetings with interested groups and individuals.

The Community Development Department retains a mailing list of approximately 600 citizens that was established during the 1991 plan preparation. Persons on the mailing list can continue to receive meeting notices, newsletters and other Departmental mailings.

The City utilized the Public Involvement Plan for the formulation of Lakeland's first EAR as well, including multiple meetings with the CAC, Planning and Zoning Board, and City Commission in 1997-1998, held a general invitation meeting to the public held at City Hall hosted by the CAC, and held formal public hearings for the draft EAR and adopted EAR.

The City's update of the first six of eight elements to a 2010 plan included ten formal meetings with the Citizens Advisory Committee and/or its subcommittee for the Comprehensive Plan Update, four meetings with the Planning and Zoning Board, four with the City Commission and two more with the Board and Commission sitting in a combined workshop. One of the presentations to the Commission was at its annual retreat and several of the Commission presentations were covered by local media. Also, staff presented an overall seminar on the Comprehensive Plan to various participants attending the first annual citywide Neighborhood Leadership Conference, at which comment sheets were made available; a question and answer time followed the presentation. (Please see attached meeting date schedule). Staff also surveyed the formal neighborhood associations participating in the City's Neighborhood Improvement Program in preparation for drafting the new, optional Lakeland Neighborhood Sub-element to the Future Land Use element.

Citizens will continue to play an active role in the monitoring, updating and evaluation of the Lakeland Comprehensive Plan through the Citizens Advisory Committee. In addition, all relevant legal requirements for public notice regarding plan amendments, land use changes, zoning changes, etc. will continue to be met.

UPDATING BASELINE DATA

An initial step undertaken by the City of Lakeland in preparing its 1991 Comprehensive Plan was the development of a fairly extensive data base for most of the required elements; these were the “technical” or “support” documents containing data and analysis to support the Lakeland Comprehensive Plan and developed in the period between 1987 to 1990.

Much of the data was then updated by the 1998 adopted EAR, with data having baseline dates between 1995 and 1997. Further updates of some data was possible for 1998-1999 in the drafting of the 2000 – 2010 Comprehensive Plan for Lakeland. To ensure that the comprehensive plan data base is kept current, the City of Lakeland will need to target the following:

Land Use Data: In 1996-97, Community Development staff evaluated existing land uses for the City and the Lakeland Planning Area through windshield surveys/field checks, aerial photography analysis and property information. Another survey and/or update through the property information database as linked to a GIS mapping system should be formulated in 2005 for execution in coordination with data updates for the next EAR. However, after the next survey, ideally all changes in land use would then be tracked through either permit or occupancy certificate databases to allow continual updates. Also, if Polk County does update its 1997 aerial photography of the Lakeland area, that data should be used to update the 1996-97 Existing Land Use Map.

Traffic Circulation Data: The City of Lakeland has an ongoing traffic count program at specific count locations, normally done on an annual basis. The State Dept. of Transportation and Polk Transportation Planning Organization also annually update traffic counts. As a result, City traffic circulation data should be updated annually where it relates to new traffic counts. Existing levels of service will be updated where necessary to reflect changes resulting from the new counts. These updates will also include changes or amendments to any adopted interim or long-range transportation plan of the Polk County Transportation Planning Organization or any new road projects completed or proposed by the City of Lakeland.

Ports, Aviation and Related Facilities Data: As the City of Lakeland is located within Polk County, an inland county, ports were not addressed. Aviation data will be updated in coordination with updates to the Master Plan for Lakeland Regional Airport or collection of data for the next EAR. Once the new terminal and air traffic control tower are constructed, an update of the physical layout of the airport will be incorporated into an amendment to the text.

Mass Transit Data: Mass Transit data will be updated in coordination with transit development plan updates prepared by Polk County Transportation Planning Organization for the Lakeland Area Mass Transit District approximately every five years and/or in conjunction with data collection for the next EAR.

Housing Data: Some sampling of housing conditions were made for the EAR in 1997. The City of Lakeland will target an update to the statistical data for housing for approximately 2002, i.e., after reports of the 2000 Census are distributed by the U.S. Bureau of the Census in mid-2001. Another City housing condition windshield survey should be targeted for the next EAR, e.g. in 2006, inclusive of mobile homes.

Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Data: Infrastructure data will be revised in coordination with updates to any master plans prepared for the Water Utilities Department regarding potable water and wastewater as relates to the schedule for next EAR, (2005 or 2006). Major changes such as opening of the northeast wellfield, completion of a new, second water treatment plant, need for a third wastewater treatment plant, and/or adoption of the SWUCA rules, could require earlier or more frequent updates for potable water or wastewater treatment.

Conservation Data: Conservation data will be updated by mid-planning period for the next EAR, once (a) FEMA updated maps are made available on GIS (b) any other, new and relevant natural resource map data becomes available on GIS, such as topographic information, and (c) if Lakeland adopts a stormwater utility tax and begins other major lake clean-up projects such as the one for Lake Hollingsworth,

Recreation and Open Space Data: Recreation and Open Space data will be updated in conjunction with the data collection for the next EAR/2006. In addition, the inventory of recreation sites and facilities will be updated every three years beginning no later than 2003.

Intergovernmental Coordination Data: Community Development staff will update the intergovernmental coordination mechanisms in conjunction with the next EAR/in 2006 or 2007. The update will also include an analysis of each coordination mechanism and a rating of effectiveness as "good," "fair," or "poor."

Capital Improvements Data: The capital improvements data will be updated on an annual basis to coincide with the City's budget process. The update will include newly identified needs and any changes in the funding priorities or sources for projects within the five-year Capital Improvements Program.

Population Projections: Population projections will be updated as needed per the release and analysis of the year 2000 U.S. Census counts. In addition, the annual estimates provided by the University of Florida, Bureau of Economic and Business Research will be evaluated against projections. New projections will be required for the next EAR due in draft form in 2006.

Adhering to this schedule will ensure that all data and analyses supporting the comprehensive plan remain current and as accurate as possible given staff resource limitations. It will also ensure the availability of adequate data and analysis to support changes proposed in the adopted comprehensive plan as part of the periodic evaluation and appraisal report.

IDENTIFYING AND CORRECTING PLAN IMPLEMENTATION PROBLEMS

The Community Development Department will prepare a matrix of implementation actions by subject area and year in which the action should occur. This matrix will be maintained on a continual basis as a means to measure the extent to which the plan is being implemented. Problems with implementation will be addressed by Community Development staff during data and plan updates and may be corrected through initiation of a plan amendment, allowed up to twice a year with appropriate public hearings and citizen input. Where redirecting of City efforts and priorities is required, these issues shall be reported to the City Commission, no less than annually.

CONTINUOUS PLAN MONITORING AND EVALUATION

Monitoring and evaluation of the Lakeland Comprehensive Plan: 2000 - 2010 will be the responsibility of the Community Development Department in conjunction with other City department staff input. The procedures outlined above will be adhered to ensuring continual action throughout the planning horizon. As was the policy throughout preparation of the comprehensive plan, all reports, data updates, or proposed plan amendments will be available for public review at City Hall and the Lakeland Library, if possible. Access to amendments through the City's website is also planned.

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PUBLIC INVOLVEMENT SCHEDULE FOR PLAN UPDATE TO 2010

(Five Elements To Be Updated Additionally Once Remainder of Future Land Use & Transportation Element Drafted in 2001.)

Topic of Workshop:	Population Projections	Recreation Open Space Element	Intergovernmental Coordination Element	Infrastructure Element: Potable Water & Waste-water; Stormwater, Solid Waste & Aquifer Recharge	Conservation Element	Housing Element	Capital Improvements Element
Citizens Advisory Committee	5-4-98	9-22-98	11-2-98	2-1-99 & 3-1-99	4-26-99	7-15-99	8-9-99
Planning & Zoning Board	9-22-98	12-15-98	12-15-98	3-12-99	4-2-99	7-16-99	8-17-99
City Commission	2-4-99	2-4-99	2-4-99	3-12-99	4-16-99	7-16-99	8-13-99
Forum		Topic			Date of Meeting		
CAC		Neighborhood Related Policies			6-17-98 & 8-19-98		
Neighborhood Conference		All of Comp Plan with special emphasis on Neighborhood Related			5-22-99		
PUBLIC HEARINGS							
Forum		Topic			Date of Meeting		
P&Z Public Hearing		All five elements & other sections of Draft 2010 Plan			9-21-99		
P & Z Final Decision		All five elements; portions of FLUE, & other sections of Draft 2010 Plan			10-19-99		
City Commission Transmittal Hearing (preceded by notice in Lakeland Ledger)		All of five elements; portions of FLUE; & other sections of Draft 2010 Plan			11-15-99		
Expected Workshops with City Commission		Response to ORC Report/changes to Draft			February & March of 2000		
City Commission Hearing (preceded by notice in Lakeland Ledger)		All six elements + other sections of Draft 2010 Plan			Targeted Adoption Date: April 17, 2000		