

**CITY OF LAKELAND
COMPREHENSIVE LAKES MANAGEMENT PLAN
UPDATE 2006
LAKELAND, FLORIDA**



Prepared for:

CITY OF LAKELAND

Lakeland, Florida

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EXECUTIVE SUMMARY

The City of Lakeland is blessed with an abundance of lakes and streams that provide solace, recreation and economic value to the community. Elected officials, city staff and citizens have been actively working to conserve these resources since the early 1980's. The lakes in the City are influenced by the geology of the region. In addition, the growth and land development continues to impact water quality and the City's ability to provide services. Over the past ten years, the City's incorporated area has increased by 40% and its population has increased by 20%.

In 1996, the City of Lakeland contracted with BCI Engineers & Scientists, Inc. (BCI) to develop a Comprehensive Lakes Management Plan (CLMP). The need for a comprehensive plan was realized when the City considered conducting a sediment removal project on Lake Hollingsworth. Due the lack of a dedicated funding source for lake projects, funding the dredging project necessitated the delay or cancellation of a number of other city projects. The CLMP would establish a prioritization of the lakes to be managed, identify projects for each watershed, estimate the costs over a 20-year period for implementing the plan and provide a schedule for implementation. In addition, the plan would evaluate different strategies for funding the plan.

At the time that the plan was developed, funding for lake management was limited to a level that support monitoring and some minor projects such as aquatic plant management. The workplan included in the CLMP resulted in a deficit of \$2.4 million above the funds that were allocated for lake management at that time. The report contained a recommendation to establish a stormwater utility that would make up the shortfall created by the new workplan. To meet the revenue requirements, a fee of \$4.00 per Equivalent Residential Unit (ERU) would be needed.

Following the publication of the CLMP in 1996, the City of Lakeland adopted a Stormwater Utility in December 1999. The action by the City Commission followed several years of preparation and public input. The utility was adopted with an ERU rate of \$2.00. Since the adoption of the utility, the City has reorganized divisions within the Public Works Department to better manage the programs dedicated to water resource management. Two new federal and state regulatory programs will have a major influence over the direction of local government water resource management in the near future. The programs are the National Pollutant Discharge Elimination System (NPDES – Stormwater) and the Total Maximum Daily Load (TMDL) program.

Lake management in the City of Lakeland has progressed significantly since the passage of the stormwater utility. The creation of a dedicated funding source has allowed for the establishment of a capital improvement program that includes the design and construction multi-year projects. Over the past five years, there has been an average of 16 water quality and 12 drainage capital improvement projects underway simultaneously. Annual expenditures over this period has averaged \$2.6 million. The cost for retrofitting land within the City has averaged \$5,113/acre of land being treated. Two areas where the City's program was found to be deficient include street sweeping and the repair/replacement of stormwater infrastructure. In addition, the

annual revenue available for water quality capital improvement projects (approximately \$1.2 million/year) results in the design, permitting and construction of one project every 1.2 years. At this rate, it may take decades to realize improvements in the major lakes throughout the City.

Lake management in the future will be driven by the TMDL program. The TMDL program identifies impaired waters and requires the development of a Basin Management Action Plan to correct the impairment. Compliance with the TMDL program will be enforced through the NPDES stormwater permit for local governments. Every lake in the City of Lakeland is a candidate for being listed as impaired. Currently, the Department of Environmental Protection has listed eight lakes as impaired. Several of these lakes have multiple impairments. Pollutant load reduction is to be accomplished primarily through stormwater treatment. If one assumes that all lakes in Lakeland are impaired, and that the stormwater generated by the land around each lake must be treated to eliminate the impairment, then the cost of reducing pollutant loading to the lakes will exceed \$114 million. If the City proceeds with annexation as planned, this cost will exceed \$219 million.

The City's stormwater utility was compared to others around the state of Florida. The Florida Stormwater Association (FSA) estimates that there are over 120 utilities in the state, and it is estimated that there will be 2000 nationwide by 2010. The City of Lakeland's monthly fee was the fourth lowest of 76 utilities responding to 2005 survey by the FSA. In addition, the City provides for a credit of up to a 75% reduction in fees for on-site stormwater treatment. The average credit for those utilities responding to the survey was 21%. The utility generates approximately \$1.4 million per year. The revenue is being used for water quality improvement, flood control projects, monitoring and public education.

Recommendations provided in this Comprehensive Lake Management Plan update include:

- Increase the stormwater utility fee from \$2.00/ERU to \$4.00/ERU in FY 2007. This increase will provide additional revenue needed to maintain current service levels for water quality enhancement and stormwater management programs:
 - Increase the current annual level of funding for infrastructure repair/replacement by \$275,000 - from \$275,000 to \$550,000. This represents a doubling of the existing funding level, and should provide enough revenue to cover immediate and critical repair and replacement needs.
 - Add 2 additional street sweepers and supporting services to the existing fleet of four sweepers. The cost of the addition is estimated to be \$225,000 per year (capital and operating costs). The additional revenue should allow for sweeping frequencies of one month or less for most city streets.
 - Allocate the remaining additional revenue (approximately \$1.0 million) for watershed management, water quality enhancement, and flood control projects. These additional funds are needed to move existing projects forward, and for compliance with pending TMDL related management plans.
- Conduct a street sweeping study to evaluate the existing program and identify ways to increase the efficiency of the City's street sweeping operations. Factors such as

seasonality, canopy cover, soils, land use, routing, and equipment selection should be evaluated in order to optimize the available program resources.

- Perform an extensive evaluation of city codes and regulations that impact lake and natural resource protection. Incorporate low impact development principles and standards into land development regulations and the comprehensive planning process wherever possible.
- Update and revise this plan every five years. This will correspond with the TMDL program's 5-year rotating basin plan.