



*Focused on Excellence
Delivered with Integrity*

MEMORANDUM

TO: Tim Jackson, Plum Creek, Director of Real Estate PN 13-0452
FROM: Guy Parola, AICP, Planning Project Manager
DATE: November 15, 2013
RE: Public Facilities Needs, Comprehensive Plan Amendment for Envision Alachua Sector Plan: Alachua County Solid Waste, Recreation/Open Space, and Public Schools

The tables contained within this memorandum summarize the solid waste, recreation/open space, and public schools facilities needed to support the land uses proposed for the Comprehensive Plan Amendment for the Envision Alachua Sector Plan. Further, a generalized analysis is provided, which is more fully explained for each type of facility. CHW did not identify facility needs for transportation or transit, potable water, or sanitary sewer.

Other facilities and services, such as emergency medical services and law enforcement are not analyzed since they are not measured as part of Alachua County's concurrency system. Typically, these facilities and services are addressed at time of development plan review.

The following Tables 1 and 2 identify the general development baseline for the public facility needs analysis. Although the proposal anticipates no more than 70% of the homes being single-family detached unites, residential has been assumed as one hundred percent (100%) single-family. Single-family generates more demand on public schools and recreational facilities than multi-family. Therefore, in order to provide a more conservative analysis, single-family was utilized.

TABLE 1: RESIDENTIAL ENTITLEMENTS

Residential	Units
Total	10,500

TABLE 2: NON-RESIDENTIAL ENTITLEMENTS

NON-RESIDENTIAL	Square Feet
Manufacturing	8M SQFT
Office/Institutional	6M SQFT
Commercial	1.5M SQFT
Total	15.5M SQFT

Solid Waste

Alachua County’s Capital Improvements Element (CIE), Unified Land Development Code (ULDC), and concurrency system do not identify specific demand standards for non-residential development. Nor is a residential equivalency unit (REU) identified as a basis for determining non-residential demand. In order to estimate non-residential demand, a 5.5lbs per day per 1,000 sqft of non-residential REU is applied.

Currently, Alachua County generates approximately 800 tons per day of municipal solid waste¹. This equates to approximately 292,000 tons per year, of which 32% is recycled². The remaining 68% of solid waste, or approximately 198,560 tons per year, is transported to the New River Landfill in neighboring Union County, Florida. The recycled materials are brought to the Leveda Brown Environmental Park³.

TABLE 3: SOLID WASTE GENERATION

System Category¹	LBs Per Day	Tons Per Year
Existing Demand	1.6 million	198,560
Maximum Potential Solid Waste Generated at Build-out		
Lbs/day = (tons/year x 2,000 lbs) / 365 days Tons/year = (((10,500 units x 2.6 pph) x .73 ² tons/year) x .68 ³)	74,256	13,550
Lbs/day = ((5.5lbs per day ⁴ x 15,000 sqft) x .68 ⁵) x 365 Tons/year = ((lbs/day) / 2,000) x 365	56,100	10,238

¹ Source: Alachua County Public Work

² Alachua County Comprehensive Plan Level of Service for Solid Waste: 0.73 tons per capita

³ 32% of municipal solid waste is recycled and the remaining 68% is taken to the New River Landfill

⁴ Alachua County Comprehensive Plan does not identify a level of service for non-residential; formula based on generally accepted solid waste generation rate for non-residential; does not distinguish between non-residential types; level of service is calculated at 5.5lbs per 1,000 square feet of non-residential floor area

⁵ 32% of municipal solid waste is recycled and the remaining 68% is taken to the New River Landfill

The New River Regional Landfill (“New River”) Class I municipal waste facility consists of 300 acres in Union County. The New River Landfill is a joint-venture of three counties: Baker County, Bradford County, and Union County. New River serves three other counties in addition to the member counties. These are Alachua County, Levy County, and Gilchrist County. New River’s has a Class I capacity of 275,000 tons per year⁴. Based on periodic monthly reporting to the Florida Department of Environmental Protection (“FDEP”), in 2012 New River received an estimated 204,000 tons of Class I solid waste. Therefore, New River has an

¹ Source: Alachua County Comprehensive Plan Evaluation and Appraisal Report, April 5, 2011.

² Source: Alachua County Comprehensive Plan Evaluation and Appraisal Report, April 5, 2011.

³ Source: Alachua County Comprehensive Plan Evaluation and Appraisal Report, April 5, 2011.

⁴ Source: Heart of Florida Solid Waste Working Group, 2009 Final Report

available Class I solid waste receiving capacity of approximately 71,000 tons. This available capacity does not factor in future expansions. According to the Heart of Florida Solid Waste Working Group *2009 Final Report*⁵, expansions to the New River facility will expand its receiving capacity another 50 years.

Recreation

The Alachua County Comprehensive plan includes level of service standards for two (2) types of recreational facilities: activity-based and resource-based. As shown by Table 4 below, if the proposed land uses are fully developed, factoring in the 2010 population, there is a surplus of both types of recreation facilities.

TABLE 4: RECREATION LEVEL OF SERVICE

System Category	Acres
Existing Activity-Based Recreation Facilities ¹	182.72
Existing Resource-Based Recreation Facilities ²	701.14
Existing Demand for Activity-Based Recreation Facilities ³	55.33
Existing Demand for Resource-Based Recreation Facilities ⁴	553.33
Proposed Demand	
Proposed Potential Projected Impacts: Activity-Based	
((10,500 x 2.6 persons per dwelling unit) / 1,000) x 0.5	13.65
Proposed Potential Projected Impacts: Resource-Based	
((10,500 dwellings x 2.6 persons per dwelling unit) / 1,000) x 5	136.5
Residual Recreational Capacity After Proposed Development	
Activity-Based Recreation Facilities	113.74
Resource-Based Recreation Facilities	11.31

^{1,2} Source: *Alachua County Parks Level of Service Projections*, May 2010 as recorded in the Alachua County 2011 Evaluation & Appraisal Report

^{3,4} LOS = .5 acres per 1,000 persons w/in unincorporated Alachua County, 2010 unincorporated population estimate 110,665 (source: 2010 Census Alachua County total population less incorporated population)

Recreation LOS standards will be maintained through the inclusion of both activity based and resource based recreation facilities. Compliance will be established at development plan review.

⁵ http://www.heartoffloridasolidwaste.org/pdf/Heart_of_Florida_Final_Report.pdf

Public Schools

The Alachua County comprehensive plan includes level of service standards, measured by student station, for three types of facilities: elementary, middle, and high schools. The proposed residential land uses fall within the Hawthorne CSA for elementary, middle, and high school facilities.

Based on current public school capacity, the proposed residential land uses, when fully built-out, will result in a deficit of student stations at each CSA level. Note that when factoring capacity, the adjacent CSA's are included. Therefore, the "Available Capacity" column in Table 6 factors in adjoin CSA student station capacity.

TABLE 5: PUBLIC SCHOOL LEVEL OF SERVICE GENERATION RATES (STUDENT STATIONS)

School-type	Dwelling Units	Student Multiplier ¹	Potential Enrollment from Development
Elementary	10,500	0.153	1,607
Middle	10,500	0.130	1,365
High	10,500	0.142	1,491
Totals	-	-	4,463

¹ Source: Alachua County Public Schools Student Generation Rates for Residential Development

TABLE 6: PUBLIC SCHOOL LEVEL OF SERVICE (STUDENT STATIONS)

CSA	Available Capacity (factoring adjacent CSA's) ¹	Projected Demand	Surplus/Deficit
(Elementary) Hawthorne	1,263	1,607	-344
(Middle) Hawthorne	872	1365	-493
(High) Hawthorne	1,249	1,491	-242

¹ Source: 2012-2013 Alachua County School Board Five-Year District Facilities Work Program