



**INTEROFFICE MEMORANDUM
FROM
PUBLIC WORKS
UTILITIES**

Date: September 23, 2010

TO: Matt Noble

From: Howard Wegis *HW*

**SUBJECT: Proposed Mixed Use Communities in DR/GR
Analysis of LCU's Capacity to Serve Wastewater in the Year 2015**

The purpose of this memo is to provide additional information regarding the above referenced subject as requested by the Lee County Planning Department (LCPD), in response to additional information requested by the Department of Community Affairs (DCA). This memo is intended to supplement the information provided in a memo to the LCPD on June 14, 2010. It is Lee County Utilities' (LCU) understanding that DCA has requested an analysis of LCU's capacity to provide wastewater service to the Mixed Use Communities proposed in CPA 10-1 DR/GR, in the year 2015.

Projected Wastewater Flows as a Result of the Proposed Amendment

Below is the summary portion of Attachment 3 presented in the June 14, 2010 memo which quantified the increase in flows to wastewater facilities (WWTP) and increased potable water demands for water treatment facilities (WTP) as a result of the above referenced amendment. The increase in flow to LCU's wastewater facilities as a result of the proposed amendment is 148,262 gallons per day to the Three Oaks WWTP and 1,011,881 gallons per day to the Gateway WWTP.

Facility	Flow (gpd) (AADF)
LCU Corkscrew WTP TTL	299,953
LCU Three Oaks WWTP TTL	148,262
LCU Gateway WWTP TTL	1,011,881
LCU Pinewoods WTP TTL	148,262
LCU Green Meadows WTP TTL	711,928

Analysis of Capacity to Serve

As discussed in previous memorandums LCU has retained the services of consultants, AECOM, to complete an Integrated Water Resource Master Plan (IWRMP). The IWRMP is still in draft form however, flow projections for each of LCU's wastewater treatment facilities have been performed as part of this effort. In addition, the Lee County Planning Department (LCPD) coordinated with AECOM on developing these projected flows.

Table 3 below shows the current functional capacity, the 2015 and 2030 projected Maximum Month Average Daily Flow (MMADF) and calculated surpluses for LCU's two wastewater facilities proposed to support the mixed use communities.

For the Three Oaks WWTP, the IWRMP projects a MMADD of 4.59 MGD and 6.71 MGD in 2015 and 2030 respectively. This represents a surplus of 1.41 MGD in 2015 and a deficit of -0.71 MGD in 2030.

For the Gateway WWTP, the IWRMP projects a MMADF of 1.20 MGD and 1.39 MGD in 2015 and 2030 respectively. This represents a surplus of 1.80 MGD in 2015 and 1.61 MGD in 2030.

**Table 3
PROJECTED WASTEWATER FLOWS AND SURPLUS CAPACITY**

Service Area	Current Functional Capacity (MGD)	2015 IWRMP Projected Flow MMADF (MGD)	2030 IWRMP Projected Flow MMADF (MGD)	2015 Surplus Capacity MMDD (MGD)	2030 Surplus Capacity MMDD (MGD)
Three Oaks	6.00	4.59	6.71	1.41	-0.71
Gateway	3.00	1.20	1.39	1.80	1.61

The projected surpluses in LCU's two wastewater facilities represented above do not include the demands associated with the mixed communities currently under review for a Comprehensive Plan Amendment.

As shown above the projected increase in flow as a result of the proposed mixed communities in the DRGR amendment is approximately 0.148 MGD for the Three Oaks WWTP. Given a calculated surplus capacity of 1.41 MGD at the Three Oaks WWTP projected for the year 2015 (Table 3), LCU's Three Oaks facility is projected to have sufficient surplus capacity to serve the proposed mixed communities in 2015.

As shown above the projected increase in flow as a result of the proposed mixed communities in the DRGR amendment is approximately 1.01 MGD for the Gateway WWTP. Given a calculated surplus capacity of 1.80 MGD at the Gateway WWTP projected for the year 2015 (Table 3), LCU's Gateway facility is projected to have sufficient surplus capacity to serve the proposed mixed communities in 2015.