

Jonathan B. Paul

From: Mike Castine
Sent: Thursday, April 30, 2009 2:07 PM
To: Jonathan B. Paul
Cc: Ken Zeichner; Benjamin D. Chumley
Subject: FW: Request for info on GRU Water and Wastewater service area and capacity

Jonathan,

Here's Rick Hutton's response. Looks like the figures used to calculate estimated demand are correct, and they are using a combination of BEBR and GRU data. Sounds like the capacity statement is OK, too.

Mike

From: Hutton, Richard H [mailto:HUTTONRH@gru.com]
Sent: Thursday, April 30, 2009 1:45 PM
To: Mike Castine
Cc: Rankeillor, Alice I
Subject: RE: Request for info on GRU Water and Wastewater service area and capacity

Mike,

In response to your questions:

1. Water Demand Forecast

GRU projects the future numbers of residential and commercial customers based on a correlation of the historical number of GRU residential and commercial customers with Alachua County population, and the Alachua County population projections from BEBR. The demands are estimated by multiplying the numbers of residential and commercial customers times the estimated demand per customer. The demand per customer is estimated based on a multi-variate regression that relates customer demands with weather and pricing. At this time the per capita residential use in Gainesville is approximately 92 gpcd.

2. Both statements are correct. Based on our most recent forecast we have both water and wastewater plant capacity through 2029. At this time SJRWMD in conjunction with GRU are in the process of assessing the sufficiency of the water supply to accommodate future growth in the 20-year horizon. The SJRWMD proposed Priority Water Resource Caution area includes GRU's service territory and much of Alachua County. It is anticipated that increased conservation and use of reclaimed water will be needed to ensure the long-term viability of the water supply. The water supply assessment and planning process underway at this time will better define the extent to which conservation and reclaimed water use must be increased.

I'll be happy to talk with you further about this.

Best Regards

Rick Hutton, P.E.
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From: Mike Castine [mailto:mcastine@alachuacounty.us]
Sent: Thursday, April 30, 2009 11:37 AM
To: Hutton, Richard H; Rankeillor, Alice I
Cc: Richardson, David M; Ken Zeichner; Benjamin D. Chumley; Jonathan B. Paul
Subject: Request for info on GRU Water and Wastewater service area and capacity

Rick and Alice,

Alachua County Growth Management is in the process of amending its Comprehensive Plan, including the Capital Improvements Plan, the Future Land Use element, and related elements involving concurrency and public facilities. I'm trying to get some information on GRU's potable water and wastewater treatment capacity within the GRU service area, and at a minimum I'd like to know if you can confirm some information that may be part of the staff report or data and analysis for the Plan amendments. I'm not sure what is used to develop the Strategic Plan, but I imagine it includes population projections, average household size, undeveloped acreage and permitted density, current pumping demand, and average wastewater flow rates. I certainly welcome any additional information that you are able to provide, in order to present the best available information with the Plan amendments.

So the two main issues relating to the comprehensive plan data that I'm trying to verify or otherwise address are average capacity/demand factors and existing demand and capacity to absorb additional population growth. The information I have gathered so far, and would like verified or corrected is this:

1. For the purpose of projecting additional demand, is it correct that the average water and wastewater demand is generally estimated to be 100 gallons per person per day for residential and 0.4 gallons per day per square foot of non-residential? Note that the current countywide persons per household number is 2.3 (from BEBR as of April 1, 2008).
2. Is the following statement correct: *GRU operates one potable water treatment plant, the Murphree Water Treatment Facility, which provide service to areas within the City of Gainesville and portions of the unincorporated area within the Urban Cluster. The Murphree Water Treatment Facility has a design capacity of 54 million gallons per day (mgd), for the peak day. The facility currently treats an average of about 25mgd (Nov. 2008 data from Florida Department of Environmental Protection, Flow Data for Drinking Water Plants). It is anticipated that adequate capacity exists for the GRU Murphree Water Treatment Facility to accommodate population growth beyond the 5-year period ending in 2014.*

GRU also operates two sewage treatment plants, Kanapaha and Main Street, which provide service to areas within the City of Gainesville and portions of the unincorporated area within the Urban Cluster. The Kanapaha Water Reclamation Facility has a design capacity to treat 14.9 mgd, average annual daily flow (AADF) and the Main Street Wastewater Treatment Plant has a design capacity to treat 7.5 mgd, AADF for a combined total of 22.4 mgd, AADF. The Kanapaha Facility currently treats about 10mgd, while the Main Street Facility treats about 5 mgd, for a combined total of 15mgd (Florida Department of Environmental Protection, Reuse Inventory Report 2007, March 2009. It is anticipated that adequate capacity exists within the GRU wastewater treatment system to accommodate population growth beyond the 5-year period ending in 2014.

Thanks in advance for the help. We are approaching the deadline for completing the background documents, and it will be very helpful if you can respond as soon as possible.

Thanks,
Mike

Michael R. Castine, AICP

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