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DATE: February 12, 2004

TO: Blanca S. Bayó, Commission Clerk and Administrative Services Director

FROM: Richard P. Redemann, Utility Systems/Communications Engineer, Division of Economic Regulation

RE: Docket No. 031087-WU; Application for Certificate to Provide Water Service to Polk County by the Colinas Group, Inc. receivers for Lazy S. Utility Co.

Attached please find a letter from Carl P. Wright, Senior Water Conservation Analyst, with the Southwest Florida Water Management District to Mr. Charles S. Freed, P.E. of The Colinas Group, Inc. that should be placed in the docket file.

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cc: Division of Economic Regulation (Johnson)
Office of General Counsel (Gervasi)

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Southwest Florida
Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
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Sarasota Service Office
6750 Fruitville Road
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Lecanto Service Office
3600 West Sovereign Path
Suite 226
Lecanto, Florida 34461-8070
(352) 527-8131
SUNCOM 667-3271

January 27, 2004

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FLORIDA PUBLIC SERVICE COMMISSION
DIVISION OF ECONOMIC REGULATION

Charles S. Freed, P.E.
The Colinas Group, Inc.
2033 East Edgewood Drive, Suite 5
Lakeland, Florida 33803-3601

Subject: Lazy S Utilities

Dear Mr. Freed:

On January 26, 2004, Clay Shrum (Florida Rural Water Association Circuit Rider), Scott McGookey (Water Conservation Analyst), and I met you at the service area of Lazy S Utilities in Lakeland, Florida. The purpose of our visit was to determine the cause of seemingly excessive water consumption (approximately 500 gallons/connection/day), and to attempt to remedy the cause(s) of said excessive consumption. The purpose of this letter is to document our findings and observations.

First, let me state that in the 13+ years I have worked for the Southwest Florida Water Management District (SWFWMD), Lazy S is the most deficient water distribution system I have encountered. In my opinion, the entire distribution system needs to be rebuilt/replaced. Until major repairs (or complete replacement) are effected, excessive water consumption will continue. Correcting the multitude of problems will require a major capital expenditure. Even if the system as it exists were to function at 100% efficiency, service to the approximately 100 customers would not be satisfactory. I will now address each of the reasons which lead to my conclusion.

System Infrastructure: The system, according to the available map, consists primarily of two-inch distribution mains. These mains are undersized to adequately provide flow to the approximately 100 connections in the service area. I would expect that, at times, water pressures drop dangerously close to the minimum pressures required by the Florida Department of Environmental Protection, and flows to provide fire protection in the service area would require at least six-inch diameter water mains.

Infrastructure Location: There appears to be no consistency to the way this system is laid out. According to the map, some of the lines run across the streets from side-to-side, while other lines run behind residential units. Because some of these pipes are plastic (PVC), locating them is labor intensive. It would be difficult to locate these lines with line location equipment, because it is doubtful that the system's late owner included tracer wire when he installed the piping. Therefore, locating these lines is a hit-or-miss proposition, and can only be done by exploratory excavation of the areas where lines are suspected to be.

Leakage: It is likely that leakage is a major cause of excessive water consumption within the service area, although some might be attributable to lack of conservation by the consumers. Lack of conservation is often related to rate structure, which I will address later. Conventional leak detection is accomplished acoustically. The leak detector listens for vibrations which may be indicative of leakage. However, in order to listen for these vibrations, listening points on the system must be accessible. Normally, valves and hydrants serve as listening points. Since most of the system valves have not or cannot be located, and there are no fire hydrants within the service area due to inadequately sized mains, leak detection is difficult.

The presence of buried metallic debris complicates attempts to locate infrastructure. While I have a metal detector, it is ferro-magnetic in nature and it will only locate iron or steel objects. All of Lazy S's valves are two-inch or less in size. These small valves are typically made of brass, a condition which renders my locator useless. The presence of buried metallic debris complicates valve location with other types of metal detectors. Our attempts to find system infrastructure with the ferro-magnetic locator uncovered, among other things, a discarded (automotive) oil filter, a steel fence post, and corroded pieces of steel tubing. This leaves service meters as the primary access point available for leak detection and, for a variety of reasons, service meters are the least preferable access point for acoustic leak detection. Furthermore, the distance at which leaks can be detected (the distance vibrations travel along a pipe) is a function of pipe material density. Since portions of the system are of PVC composition (plastic is low in density), successful leak detection technique requires access points at fairly close intervals. In walking the two streets with you, we only found five meters, three of which were side-by-side in one location and two in another. The lack of exposed access points and the pipe composition (PVC) means that many leaks, even large ones, might not be heard unless they are in close proximity to one of the limited access points.

In many cases, leakage within dwelling units can be detected acoustically if access to drainage pipes is available. Unfortunately, many of the properties in the Lazy S service area are fenced, and the majority of these enclosures are inhabited by large, aggressive dogs. Therefore, access to wastewater drains is extremely limited.

Metering: While service meters were installed by the original owner, they were not installed in accordance with standard industry practices, i.e., in meter boxes. Standard industry practices are generally defined in the various American Water Works Association (AWWA) Manuals. Boxes provide meters a degree of protection, and simplify their maintenance and reading. In addition, placement of meters is random. Many of the meters that have been located (some have not been located) are not on lot lines, and it is difficult to determine which units are served by which meter. Given three dwelling units in a line, two of them might be serviced by a main along the front of the property, while the third is served by a line from the adjacent street. It is also likely, or at least possible, that single connections are serving multiple units.

Additionally, all of the meters I observed were manufactured by Hays. I have, in my 13 years with SWFWMD, worked in many utility systems where there is a hodge-podge of meters (e.g., Badger, Neptune, Rockwell, Precision, Hays, etc.). Throughout that time, I have consistently found Hays meters to be extremely inaccurate in comparison with other brands, often to the point that they do not record any flow at all (at a dead stop). While we did not conduct any "in place" meter tests to verify meter accuracy, doing so would be difficult due to the previously mentioned aggressive dogs. Furthermore, AWWA recommends that residential service meters be replaced at ten-year intervals. Most, if not all of the meters in Lazy S's service area are much older than ten years. A complete meter change out would be an expensive proposition.

Rate Structure:

Flat rates, such as currently charged by Lazy S Utilities are not conducive to water conservation. Unless residents are charged volume based rates, they have no incentive to conserve. Furthermore, any resident whose water is shut off for failure to pay a water bill can simply run a hose from their neighbor's property to their own. Since the neighbor is being charged a flat rate, "sharing" a connection does not increase the neighbor's cost. Because all of the existing water meters have not been located, cutting water to delinquent accounts may not even be possible.

In comparison, volume based rates encourage water conservation and prudent usage. Unfortunately, volume based rates require that each customer have a functioning and accurate service meter. It is not fair to apply volume based rates only to those customers whose meters have been located, but not to those whose meters have not been located. Even if all of the meters could be located and were found to be completely accurate, there would be labor costs associated with reading the meters and the associated accounting that would be required to prepare and send bills to the customers.

Conclusion: Simply put, after investigating Lazy S's distribution system, I believe the utility is in need of a massive cash infusion. The ten dollar a month flat rate currently being

charged to the approximately 100 connections equates to a monthly cash flow of $1,000. The fact that the utility currently owes the City of Lakeland $19,000, coupled with ongoing excessive water usage, would suggest that the utility's financial status is not going to improve. Even the court proposed flat rate of $35.50 per month would not yield enough income to pay off the debt and address the infrastructure improvements necessary to bring this system up to standard. Furthermore, a single leak could wreak havoc on a precariously balanced budget, and leaks are a fact of life in the day-to-day operations of every utility system. In my opinion, unless infrastructure deficiencies are corrected and customers absorb the actual cost of delivering their water, the operation of Lazy S Utilities will be a losing proposition.

I am more than willing to provide additional assistance to Lazy S Utilities. However, meter accuracy testing makes little sense as long as flat rates remain in effect; in reality, the meters are serving no purpose. In the absence of more access points throughout the system, leak detection will likely be futile. Should more access points be exposed, a concerted leak detection survey might help reduce excessive consumption, but would not correct the underlying factors that are plaguing Lazy S Utilities. Please call if you wish to discuss any of my observations, or if there is anything I can do to assist you. I can be reached at 800-423-1476, extension 4198, or email: carl.wright@swfwmd.state.fl.us.

Carl P. Wright

Carl P. Wright
Senior Water Conservation Analyst
Conservation Projects Section
Resource Conservation and Development Department

cc: Kathy Scott
Richard Redemann