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REBUTTAL TESTIMONY OF CARLYN HARPER KOWALSKY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

ON BEHALF OF SOUTHERN STATES UTILITIES, INC.

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Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?

A. My name is Carlyn H. Kowalsky and my business address is 1000 Color Place, Apopka, Florida 32703.

Q. WHAT IS YOUR RESPONSE REGARDING KIM DISMUKES' TESTIMONY THAT SSU HAS NOT PROVIDED ADEQUATE COST BENEFIT ANALYSES OF VARIOUS CONSERVATION METHODS?

A. SSU has generated this proposed conservation program in large part due to pressure from the Water Management Districts to expand our conservation efforts. Every District now requires us to demonstrate that we are undertaking all possible conservation measures. SWFWMD is continuing to impose tighter and tighter per capita requirements and we believe permits will not be granted in the future if the consumption of our customers is not reduced within acceptable levels. That's why we selected communities with the highest usage to target our efforts. Of course, Valrico was selected because it does not meet the proposed SWUCA restrictions. In preparing SSU's enhanced conservation program, our conservation committee undertook a significant amount of research and analysis. We looked at customer use trends based on SSU billing records. We educated ourselves about successes and problems of other utility

conservation programs. We worked with experts at the water management districts to include elements in our program they felt would be effective. We reviewed the programs implemented by the City of Tampa, Hillsborough County and others regarding plumbing retrofit kits and rebate programs. The implementation of similar programs is widespread. SWFWMD has cooperatively funded about 20 different retrofit and rebate programs. SWFWMD would not be funding these programs if they did not think they were effective.

If other utilities had not implemented these programs because of reservations similar to those of Ms. Dismukes, we would not have this conservation experience on which to continue to build successful conservation programs. I believe SSU has adequately demonstrated that the proposed conservation program can be expected to benefit SSU's customers. If we were prevented from moving forward with this enhanced conservation program until we produce a cost/benefit study in the detail suggested by Ms. Dismukes, we could spend more money proving that the programs will be effective than we would actually implementing the conservation efforts outlined in the program and we

would not be meeting the objectives advocated by the water management districts.

Q. WHAT IS YOUR RESPONSE TO KIM DISMUKES' TESTIMONY THAT ALL ADVERTISING COSTS SHOULD BE DISALLOWED?

A. Public support is critical for a successful water conservation program. Ms. Dismukes suggests that some of SSU's conservation efforts have been merely undertaken to enhance the image of the company. Her opinion appears to be generated from various comments, taken out of context, contained on invoices from the consultant employed by SSU to assist with development and implementation of the Marco Island conservation program. First of all, it is very clear that conservation programs cannot be successful without public participation and support. Advertising is an integral part of making this happen. If these efforts incidentally result in reflecting a positive image for the company, this can only be viewed as a good thing that will serve to make the conservation efforts more successful rather than a negative circumstance. To suggest disallowance of costs associated with advertising would only serve to undermine the success of the conservation program.

Q. WHAT IS YOUR RESPONSE TO KIM DISMUKES' TESTIMONY

REGARDING THE EFFECTIVENESS OF SSU'S PROPOSED RETROFIT KITS FOR TARGETED COMMUNITIES?

A. Ms. Dismukes questions the benefit of spending $60,000 on retrofit kits for the targeted communities. The Water Management Districts through the consumptive use permitting process are requesting that we expand our existing conservation program to include more aggressive measures like this retrofit program. For example, the SJRWMD suggests in Appendix K to the Applicants Handbook for Consumptive Uses of Water, that utilities implement an indoor plumbing retrofit program in at least 10% of the connections served.

Ms. Dismukes also suggests that SSU's program may be unsuccessful because customers are not likely to utilize "cheap devices." SSU has investigated the conservation methods utilized by other utilities to get an idea of what programs have been successful in the past. The memorandum from George Cecil, Image Marketing, dated August 30, 1994 regarding Retrofit Research begins with the following general conclusion, "All [utilities contacted] found the programs beneficial when implemented properly. Water savings were substantial..." Mr. Cecil reported on programs

implemented by utilities in Tucson, Arizona; Ottawa, Canada; El Paso, Texas; Tampa, Florida; Austin, Texas; and Boston, Massachusetts. In one instance, the Tucson utility reported that because the customers were not receiving adequate water pressure, the retrofit devices were not well received. SSU should be commended, not criticized for doing its homework and investigating the potential problems others have incurred, so that we can learn from those problems and implement our program utilizing the best information available.

There are several important aspects of a successful retrofit program. Certainly, we need to ensure that the quality of the devices are such that the customers will utilize them. Of the 6,253 SSU has distributed so far, we have not received any complaints about the quality of the devices, nor any indication from customers that they do not want to utilize them for any other reason. Many other utilities have distributed these devices and obtained a high level of participation. A continuing customer education program is also a critical component of any retrofit program to inform the customers about the reasons for conservation and the benefits they can achieve.

Equally important are the follow-up surveys to ascertain what components were well received and what components can be improved on.

Q. WHAT IS YOUR RESPONSE TO KIM DISMUKES' TESTIMONY THAT THE COST OF CUSTOMER SURVEYS SHOULD NOT BE RECOVERED?

A. Surveys to document customer participation in certain water conservation measures is an integral part of a meaningful conservation program. These surveys are essential to gauge the effectiveness of our conservation efforts. The AWWA White Paper entitled, Water Conservation and Water Utility Programs, June 28, 1995, notes that, "Conserved water can be considered a reliable water source... Some water planners feel, however that the predictability and permanence of conservation measures have not been proven to the same degree as traditional supply measures... Reliability concerns underscore the ongoing need for utilities to monitor and document the effectiveness of their conservation programs..." The Water Management Districts also recommend customer follow up when developing a conservation program.

Q. WHAT IS YOUR RESPONSE TO KIM DISMUKES' TESTIMONY THAT IRRIGATION SHUT-OFF DEVICES ARE NOT EFFECTIVE?

A. Ms. Dismukes raises a concern about allocating $20,000 to a rain sensor rebate program, because she says the effectiveness of these devices are uncertain. As the basis for her opinion she relies on comments contained in a survey of local contractors on Marco Island. One contractor noted that the devices only shut off the system for 2-3 hours after it rains. Another contractor noted a bad experience with soil moisture sensors. These appear to be isolated instances concerning devices other than the Mini-clik proposed by SSU. The Mini-Clik rain sensor has proven successful in many applications across Florida. The device may be adjusted so that it shuts off the irrigation system after the device receipt of 1/8, 1/4, 1/2 or 1 inch of rainfall. It is not dependent on soil conditions. Therefore, if the device is properly set, it will shut off the system for a sufficient period of time to prevent irrigation during rainy periods. The time it takes for the moisture sensors to dry out and allow the system to re-set depends on temperature and humidity. One safeguard employed by the Mini-clik is that the moisture sensors are encased so that leaf debris and other materials can not clog the devices. Other rain

sensors have utilized a cup to collect the rainfall which often became clogged with debris and rendered the devices ineffective. This does not happen with the Mini-clik.

In 1991-1992, Lee County, in cooperation with the SFWMD, implemented a rain sensor program utilizing the Mini-clik rain sensor. The Lee County project was instituted to study the effectiveness of the rain sensor devices to assess the appropriateness of adopting a County Ordinance requiring retroactive installation. After distribution of about 180 rain sensors and gathering one year's worth of data they determined that the devices resulted in average water savings of 31% for irrigation use.

SWFWMD indicates that they have successfully utilized the Mini-click in a number of their Xeriscape demonstration sites. Furthermore, SJRWMD's Applicant's Handbook for Consumptive Uses of Water recommends implementation of a rain sensor distribution program in at least 10% of the applicable connections served.

Q. WHAT IS YOUR RESPONSE TO KIM DISMUKES' TESTIMONY THAT THE PROPOSED CONSERVATION PROGRAM FOR VALRICO HILLS IS NOT WARRANTED?

A. Valrico Hills is one of the six communities chosen by the conservation committee for participation in the enhanced conservation program including plumbing retrofit kits, toilet and rain sensor rebates, and expanded public education efforts. SSU is proposing to spend approximately $14,000 to effect conservation in this community. We chose to target this community because following adoption of SWFWMD's Southern Water Use Caution Area rules, we must comply with the 110 per capita consumption requirement, which this community has not met in the past. Ms. Dismukes suggests that because Valrico Hills (located in Hillsborough County) has lower rates than many areas, their consumption habits could be changed by simply changing their rate structure.

I disagree. A change in rate structure alone is not the most effective way to effect conservation. The American Water Works Association, in a white paper entitled, Water Conservation and Water Utility Programs, dated June 28, 1995, states, "Conservation-oriented water rate structures by themselves do not constitute an effective water conservation program. Rate structures work best as a conservation tool when

coupled with a sustained customer education program... Participation in other water conservation programs, such as plumbing-fixture retrofit and replacement programs, can also be enhanced by rate incentives and customer education." Accordingly, the costs for the enhanced conservation program for Valrico Hills should be allowed. A copy of this document is attached as Exhibit _____ (CHK-6).

Q. WHAT IS YOUR RESPONSE TO MS. DISMUKES' CRITICISM OF THE MARCO ISLAND WATER AUDITS?

A. First, Ms. Dismukes suggests that SSU should not be allowed to recover $20,000 for a continuation of the Marco residential water audit program. She concludes that since only 7 of 17 single facility residents participated in the program in 1995, it is not likely that customers would participate in 1996. Contrary to Ms. Dismukes' characterization, the 1995 Marco Island water audit program was quite successful. The audit report notes that 66 of 78 commercial/multi-family customers participated. Water saving recommendations provided to these customers included: adjustment of irrigation system pressures and coverage zones, installation of rain sensors, consolidation of high water demand

vegetation, adjustment of fertilization measures, and capping of spray heads in mature shrubs. During the follow-up visits, property managers indicated that they had begun implementing many of these recommendations. If cost recovery of this program is allowed, SSU plans to offer water audits to additional customers. Education of these customers is critical to changing their high water use habits for the long term.

Q. DO YOU HAVE ANY OTHER COMMENTS REGARDING MS. DISMUKES' CRITICISM OF THE MARCO ISLAND CONSERVATION PROGRAM?

A. Yes. I disagree with Ms. Dismukes' comments about the success of our conservation efforts on Marco Island. SSU's conservation efforts on Marco Island have been very successful. In 1991, average consumption for residential water customers on Marco Island was 23,462 gallons per month. SSU initiated its conservation public education program in 1991 with projects such as development and distribution of conservation publications and articles, the Speaker's Bureau, Open Houses, and conservation presentations to schoolchildren by the Small Change Original Theater. In 1993, SSU expanded its conservation efforts on Marco Island

and distributed about 3,000 free plumbing retrofit kits to SSU water customers. SSU launched a more intensive conservation campaign in late 1994 including additional conservation workshops, high volume user water audits, and customer surveys. Average residential customer use in 1995 was down to 14,928 gallons per month. These intensive conservation efforts appear to have been effective in reducing consumption between 1991 and 1995 and should be continued. Because water supply issues are particularly acute for Marco Island, continued conservation efforts on Marco are essential to assure sustainable water supplies. It is important that the conservation message remain visible so that water conservation can become a habit for all Marco Island customers.

Q. COULD YOU PROVIDE AN UPDATE OF SOME OF THE HIGHLIGHTS OF SSU'S CONSERVATION EFFORTS SINCE THE FILING OF YOUR DIRECT TESTIMONY?

A. Yes. I and other members of SSU's conservation committee have become quite active in the Florida Water Wise Council. In October, we participated in a seminar organized by the Water Wise Council entitled "H2 Options." A variety of professionals working in industry, agricultural, and utilities

participated in the conference. Representatives of these groups, including SSU, shared their ideas and experiences about successful water conservation programs. In January, 1996, SSU staff participated in "Conserve '96," a national conference held in Orlando dedicated to water conservation strategies. In March, 1996, SSU volunteers helped to organize a program of Water Wise Landscaping, held at Leu Gardens in Orlando. This program was designed to educate the public on water saving landscaping techniques. SSU has also developed a new conservation publication regarding Irrigation Conservation, which has been mailed to every SSU customer. This document describes methods the individual homeowner can employ to save water in the landscape and includes a worksheet for customers to determine how much water they use for irrigation so that they can better manage their water use.

Q. SSU WITNESS PASTER HAS SUGGESTED THAT YOU COULD EXPLAIN THE CURRENT STATUS OF THE PROJECT AT DELTONA LAKES IDENTIFIED IN EXHIBIT _____ (JDW-8) AS "DHCC-EFF DISP. IMPROVE." CAN YOU PROVIDE THAT STATUS?

A. Yes. This project consists of costs incurred to

defend a lawsuit which will enable SSU to continue to discharge effluent at the Glen Abbey Golf Course and secure the use of the adjoining James Pond for wet weather discharge. The plaintiffs are entities which secured ownership of the golf course by foreclosure on the golf course owner with which SSU had entered an effluent disposal agreement. Basically, the plaintiffs alleged an inverse condemnation and trespass/flooding. On February 13, 1996, after a non jury trial on the inverse condemnation claim, the judge entered an oral ruling in favor of SSU finding that no inverse condemnation had occurred.

Q. DOES THAT CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?

A. Yes it does.

EXHIBIT (CHK-6)

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WATER CONSERVATION AND WATER UTILITY PROGRAMS

A White Paper From the American Water Works Association

Approved June 28, 1995
To Be Published in AWWA MainStream

The American Water Works Association (AWWA) is an international nonprofit scientific and educational society dedicated to the improvement of drinking water quality and supply. Founded in 1881, AWWA is the largest organization of water supply professionals in the world. Its more than 50,000 members represent the full spectrum of the drinking water community—treatment plant operators and managers, environmentalists, scientists, manufacturers, academicians, regulators, and others who hold genuine interest in water supply and public health. Membership includes more than 3,700 utilities that supply water to roughly 170 million people in the United States.

WATER CONSERVATION AND WATER UTILITY PROGRAMS

A White Paper From the American Water Works Association

(Approved June 28, 1995)

Water conservation can be defined as practices, techniques, and technologies that improve the efficiency of water use. Increased efficiency expands the use of the water resource, freeing up water supplies for other uses, such as population growth, new industry, and environmental conservation.

Water conservation is often equated with temporary restrictions on customer water use. Although water restrictions can be a useful emergency tool for drought management or service disruptions, water conservation programs emphasize lasting day-to-day improvements in water use efficiency.

The Role of Water Conservation

Community water supply management requires balancing the development of adequate water supplies with the needs of the utility's customers. Traditionally, water utilities have focused primarily on developing additional supplies to satisfy increasing demands associated with population growth and economic development. Increasingly, however, water utilities throughout the United States are recognizing that water conservation programs can reduce current and future water demands to the benefit of the customer, the utility, and the environment.

The increasing efforts in water conservation, often called demand-side management, are spurred by a number of factors: growing competition for limited supplies, increasing costs and difficulties in developing new supplies, optimization of existing facilities, delay or reduction of capital investments in capacity expansion, and growing public support for the conservation of limited natural resources and adequate water supplies to preserve environmental integrity.

The focus of any supply strategy is to satisfy customer water needs in the most cost-effective and efficient manner, minimizing any adverse environmental impact and preserving the quality of life. Although conservation is sometimes an alternative to developing additional supplies, it is more often one of several complementary supply strategies for a utility. A conservation strategy, like any supply strategy, is part of a utility's overall planning and part of the integrated resource planning to ensure that all important community objectives and environmental goals are considered.

Water conservation in the broad sense is a key element in the day-to-day management of the modern water utility. Sound management includes the following basic water conservation practices:

- reduction of unaccounted-for water through universal metering and accounting of water use, routine meter testing and repair, and distribution system leak detection and repair;
- cost-of-service - based water rates; and
- public information and education programs to promote water conservation and to assist residential and commercial customers with conservation practices.

Beyond these fundamental conservation practices, effective water conservation programs are tailored to the needs and priorities of each community and recognize local and regional water demand characteristics and water supply availability.

Water Savings and Reliability

Conserved water can be considered a reliable water source. Great strides have been made over the past decade in evaluating and documenting the effectiveness of various conservation programs. Today there is a body of knowledge on water conservation, gained from the experiences of utilities, that provides a relatively high degree of confidence in the reliability and predictability of various water conservation measures. Some water planners feel, however, that the predictability and permanence of conservation measures have not been proven to the same degree as traditional supply measures.

The reliability of conserved water depends on accurate estimates of potential savings, expected benefits, and costs. Careful analysis and planning is a prerequisite to major utility investments in conservation programs. Reliability concerns also underscore the ongoing need for utilities to monitor and document the effectiveness of their conservation programs, just as they do water supplies and facilities.

Long-term conservation programs can affect short-term demand management practices. Reductions in water demands from long-term conservation programs and reductions from short-term demand management measures can overlap. Customers who have installed retrofit devices under long-term conservation programs may have less ability or willingness to further conserve.

In the event of water shortages, agencies with broad-based water conservation programs are able to mitigate short-term and long-term effects better than those without a conservation program.

Financial Aspects of Conservation

Conservation programs typically involve up-front costs, including revenue losses. The full benefits of conservation are realized only after all savings have materialized. However, reduced water sales because of conservation often develop slowly in small increments that can be accommodated in periodic rate adjustments.

Over the long-term, conservation can decrease a utility's need for new capital facilities for supply acquisition, treatment, storage, pumping, and distribution. It may also reduce the costs of operating those facilities. Deferring investment in such facilities or reducing their size can provide significant cost savings. In areas experiencing population growth, conservation can provide additional capacity to accommodate growth, resulting in a larger customer base over which to spread future capital costs. Water rates may be lower with conservation than without.

Water conservation can affect wastewater collection and treatment systems. Reduced hydraulic loadings can improve treatment performance in terms of effluent quality and reduced operating costs. Reducing wastewater flows through conservation can result in cost savings by deferring the need to enlarge wastewater treatment facilities.

Rates. The first goal of any rate structure is to generate sufficient revenues to maintain efficient and reliable utility operations, and the second is fairness in the allocation of utility service costs. Generally, it is possible to satisfy both of these goals in a rate structure that encourages water conservation or penalizes excessive water use.

Conservation-oriented water rate structures by themselves do not constitute an effective water conservation program. Rate structures work best as a conservation tool when coupled with a sustained customer education program. Customer education is important to establish and maintain the link between customer behaviors and their water bill. Utility customers require practical information about water-conserving practices and technologies. Participation in other water conservation programs, such as plumbing-fixture retrofit and replacement programs, can also be enhanced by rate incentives and customer education. Finally, public acceptance of rate structure changes is often enhanced if customers understand the need for and benefits of water conservation.