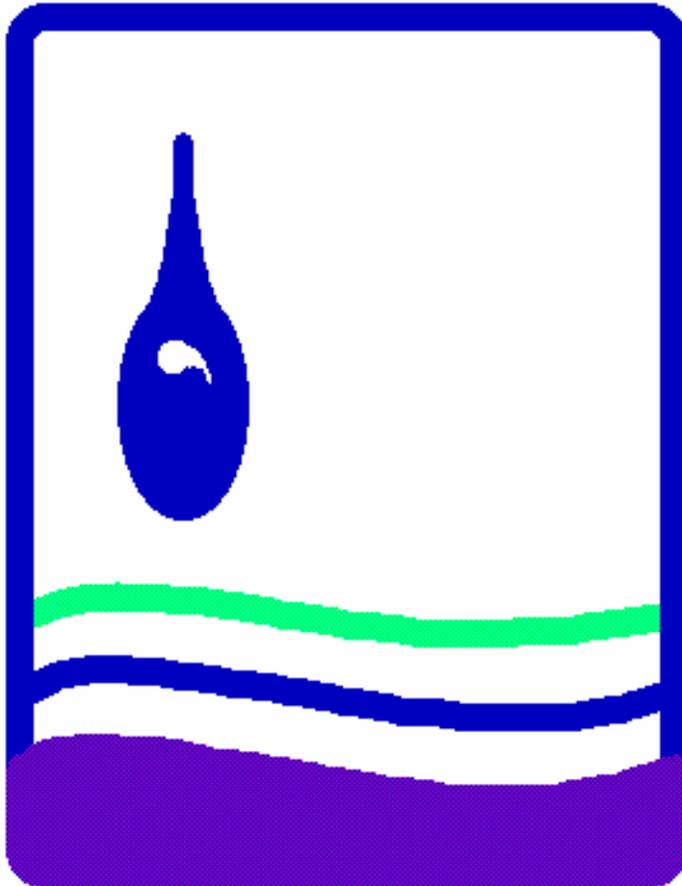


SOUTH WALTON UTILITY CO., INC.  
79 SCENIC GULF DRIVE  
MIRAMAR BEACH, FLORIDA 32550



***WATER CONSERVATION PLAN***  
***Approved by the Board of Directors***  
***November 14, 2000***

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# ***INTRODUCTION***

During the last several years, South Walton Utility Co., Inc. has experienced tremendous growth throughout our franchise area. In an effort to provide future potable water to our customers, the Water Resources Partnership (WRP) was formed. On June 2, 1999, the Northwest Florida Water Management District issued WRP a permit to pump water from our well fields located north of our franchise area. On April 17, 2000, the Northwest Florida Water Management District formally transferred Permit No. 980046 to South Walton Utility Co., Inc.

Northwest Florida Water Management District has mandated that South Walton Utility Co., Inc. draft and implement a water conservation plan and ensure sufficient measures are being implemented to conserve water. Because our area is undergoing rapid growth, South Walton Utility Co., Inc.'s water resource planners and conservation members must work to balance water resources and the increasing demand for potable water. The least expensive way to provide water for growth and to ensure an adequate supply for the future is through wise management and careful use of our current supplies.

Water conservation is not something that can be imposed on the public. It must be voluntarily and willingly accepted, and become a shared responsibility between South Walton Utility Co., Inc. and our customers. Only if citizens are willing to embrace and practice a conservation ethic and adopt water conservation as a fundamental part of life in Northwest Florida can South Walton Utility Co., Inc. succeed in meeting long-term water conservation and supply goals. Through comprehensive planning, the responsible application of best available water conservation technologies, public education, and recycling of wastewater, our water resources can be managed to sustain projected growth well into the future.

There are a number of methods that can be utilized in water resource management. These various methods are the components of water conservation. By utilizing these methods we can help reduce the amount and waste of water consumed by business, agriculture, industry and individuals.

The society at large benefits from conservation by preserving environmental resources. Water conservation reduces demands on wastewater systems and, in fact, the need to reduce wastewater treatment costs is a strong rationale for water conservation. Conservation also can benefit consumers by lowering energy and long-term water costs

## ***BENEFITS OF WATER CONSERVATION***

Water conservation consists of any beneficial reduction in water losses, waste, or use. In the context of utility planning the term “beneficial” usually means that the benefits of an activity outweigh the costs. Conserving water can be beneficial in many ways, but one important reason for conservation is that it can help our systems avoid, downsize, or postpone water and wastewater projects. Our facilities used to treat and deliver drinking water (and to collect and treat wastewater) are sized to meet the demand. If the level of demand is inflated by wasteful use, our customers pay more in both capital and operating costs than necessary to provide safe and adequate water supply and wastewater services. Moreover, when the cost of supplying drinking water and processing wastewater is reduced, financial resources can be used to meet other needs.

In connection with infrastructure funding, the value of conservation is appropriately assessed in terms of supply, treatment, and distribution costs that can be avoided because of planned reductions in water demand. Conservation becomes more valuable over time because future water supplies and the facilities needed to deliver them are expected to cost more, even when adjusting for inflation. In other words, permanent conservation savings that are realized today will have increasing value into the future.

In order to meet the needs of existing and future populations and ensure that habitats and ecosystems are protected, our water must be sustainable and renewable. Sound water resource management, which emphasizes careful, efficient use of water, is essential in order to achieve our objectives.

Efficient water use can have major environmental, public health, and economic benefits by helping to improve water quality, maintain aquatic ecosystems, and protect drinking water resources. As we face increasing risks to ecosystems and their biological integrity, the inextricable link between water quality and water quantity becomes more important. Water efficiency is one way of addressing water quality and quantity goals. Our efficient use of water can also prevent pollution by reducing wastewater flows, recycling industrial process water, reclaiming wastewater, and using less energy.

## ***OBJECTIVES***

Create awareness of the growing concern for future water shortages.

Develop a community interest in water conservation.

Reduction of per capita consumption.

## ***CONSERVATION PLAN COMPONENTS***

Community Involvement

Public Education

Retrofit (Replacement of) Existing Plumbing

Landscaping & Xeriscape (pronounced Zer-I-scape)  
(Discourage and/or Reduce Irrigation)

Reclaimed Water

Reduction of Unaccounted For Water

Rate Structure Considerations

## ***COMMUNITY INVOLVEMENT***

Ongoing community involvement helps maintain and build support for achieving conservation goals and “getting the word out” about the conservation effort. Participants can act as a focus group for exploring specific conservation measures and also can provide valuable linkages to key groups – consumers, businesses, and institutions – involved in implementing conservation measures. Community groups can assist our water system in monitoring results and adjusting program implementation. Utilizing high school or trade school students, we can assist those unable to make necessary repairs or replace plumbing equipment. In addition to the benefits to the elderly or those on a fixed income, students could learn by doing and while making a valuable contribution to their community and assisting in the conservation of our natural resources.

For our water system, involving the community in water system planning is a new experience. Community involvement does not have to consume excessive time or resources. Even a few “town hall” meetings or “brainstorming” sessions can be helpful. Our system managers will find that involving members of the community in developing goals, implementing programs, and evaluating results is a very worthwhile investment.

*Recommendations: Create focus groups to help identify and recommend corrections to water waste; Citizens Helping Citizens groups,*

## ***PUBLIC EDUCATION***

Water providers have become increasingly aware in recent years of the need for effective communication with the public. As the era of abundant low-cost water supplies comes to an end and utilities are faced with difficult decisions, such as choosing between higher cost supply options or inconvenient conservation measures, effective public information, and involvement may ultimately determine the success or failure of the water supplier's programs and plans.

From educating the public about the suitability and safety of reuse (reclaimed) water for outside residential and municipal use, to teaching school children the importance of water conservation at home, to convincing rate payers of the long-term benefits of inclining block or other conservation rates; public information programs will be a crucial component in the implementation of South Walton Utility Company, Inc.'s Water Conservation Plan.

An effective public information program must begin with increased public awareness of the water supply problems. Due to the recent drought conditions, the newspapers and radio stations have been helping to inform the citizens of the need to conserve water supplies. Continued articles and radio announcements are excellent ways to continually remind citizens of the ongoing need to conserve potable water. These articles and reminders should be coupled with direct mail literature such as bill inserts and brochures stressing conservation in general as well as specific ways they can conserve.

South Walton Utility Company, Inc. will educate schools and students on water conservation using the American Water Works Association's "Blue Thumb" Program. South Walton Utility Company, Inc. will continue to educate our customers on water conservation by providing information with customers' bills. We will also communicate to condominiums and hotels the water-saving devices we offer free of charge to our customers.

South Walton Utility Company, Inc. will provide seminars every 2 years to customers on water conservation. In an effort to educate our customer base on water conservation our top 5 percent of water consumers will be educated first on water conservation measures to implement.

The AWWA will be our primary source of promotional and educational aids. Bumper stickers, decals, bill stuffers, youth educational materials, and video guidance materials for improving presentation skills and implementing effective public affairs programs are all available through the AWWA. South Walton Utility Company, Inc. is aware that effective public education programs are long-term management commitments aimed at achieving long-term results.

In many communities, the formation of citizen advisory groups has helped utilities in planning and implementing specific water conservation programs. Such programs can be very helpful in communications and public education. Educational literature available to our customers are: "Easy Ways to Save Water, Money, and Energy at Home," "Water Conservation at Why to-Where to-How to," "Wise Water use Outdoors," and "It's Natural – Conservation Landscaping."

*Recommendations: Contact local TV and Radio stations to assist in providing public announcements about the benefits of water conservation; implement educational programs in the local schools to teach children about the need to conserve water; provide educational material in billings; create website for South Walton Utility to provide a forum for public education; provide magnetic advertising signs for all South Walton Utility vehicles to get the word out on a daily basis to the public.*

## ***RETROFITTING – CONSERVING WATER TO PRESERVE OUR RESOURCES***

Every drop of water does count and each person can make a difference to help preserve and conserve this important resource. Because water is usually plentiful, easily available, and generally inexpensive, we often consider it to be an almost limitless resource – it is not. Water conservation practices help preserve our existing water supplies and help ensure our water resources will be available for future generations.

*Retrofitting* is replacing, changing, or modifying existing older plumbing fixtures in homes or businesses with those that are designed to save water. Older, water-guzzling plumbing fixtures should be replaced with low-flow or reduced-flow devices.

*Retrofitting* to save water will lower utility bills. The more water that comes into homes or businesses, the more water there is that must be disposed of through sewer systems. This also costs money. Many simple, easy-to-install water-saving devices will lower water and sewer bills enough to make up for the initial costs within just a few months. Offering a replacement/exchange program for outdated, high water consumption devices can help make retrofitting a reality.

It has been estimated that a family of four could save between 10,000 to 20,000 gallons of water a year by repairing leaking faucets and toilets, installing low-flow aerators, placing dams or bottles in toilets, installing flow restrictors or replacing showerheads with low-flow ones. A simple task such as fixing leaks could save hundreds of gallons of water each year.

Offering high water use facilities such as condominiums, a one time reduction to their water bill for retrofitting all fixtures with water saving devices within a 30-day period could also effect a reduction in water usage.

*Recommendations: Provide replacement water saving devices such as showerhead and sink aerators to older homes and businesses; recommend any future appliances be replaced with water saving appliances; offer rate reduction to high use areas for compliance.*

## ***XERISCAPE™ – PLANT IT SMART***

In recent years, water conservation has become vitally important to all of us in Florida. Due to the area's increasing population and the threat of droughts, we must do all we can to conserve water year-round. Landscapes can put a great demand on our urban water supply, often accounting for more than 50 percent of all water used for home consumption. Conserving water through creative landscaping is what Xeriscape™ is all about.

Simply selecting the most suitable plants, shrubs, and trees for our environment and applying a few basic Xeriscape™ methods will substantially reduce your landscape water needs. You can save from 30 to 80 percent of your outside water-use with Xeriscape™ landscape.

In addition to saving water, a Xeriscape™ landscape saves time and money. Landscapes designed with Xeriscape™ principles typically require less maintenance and will better tolerate droughts, and resist diseases and insects, as well.

Whether your landscape is already established, or you're starting new, take a moment to learn how you can benefit from the water-wise concepts of Xeriscape™ landscape. Remember, water is the lifeblood of Florida. Don't bleed us dry. Plant it smart and Xeriscape™. PLANT IT SMART.

Although the word itself may be unfamiliar, Xeriscape™ utilizes common landscaping principles, which have been known by industry professionals for years. By following these simple principles, you can still enjoy all the lush beauty of a Florida landscape and, at the same time, save water, time, and money.

Incorporating Xeriscape™ principles into your landscape is easy and does not require a large investment. A Xeriscape™ saves time and money, but, most importantly, protects the environment and saves our most valuable resource, water.

As an immediate requirement of CS/HB 91, the Xeriscape™ Bill, effective May 9, 1991, the act requires ...Any person who purchases and installs an automatic lawn sprinkler system...shall install a rain sensor device or switch which will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred. Enforcement of this section is covered in Florida Statutes sections 125.568 and 166.048. For information on retrofitting irrigation systems, a certified specialist in the area may be contacted.

South Walton Utility Company, Inc. will make available to all landscaping companies, irrigation companies', developers', house builders', and contractors' statistical data showing savings with Xeriscape™ compared to conventional landscaping.

*Recommendations: Encourage plantings of low-water use plants; prepare a display in a public area of an effective Xeriscape™ landscape to teach the public about the effectiveness of this type of landscape in water conservation; provide notifications in billings about retrofitting irrigation systems with rain sensor devices.*

## ***RECLAIMED WATER***

The use of treated wastewater for irrigation and other beneficial applications is becoming more commonplace in response to restrictions on the discharge of treated effluents to surface water bodies, and the need to preserve high-quality potable water supplies such as the Floridian aquifer. South Walton Utility Company, Inc. is aware of these benefits and look forward to future implementation of reclaimed water.

South Walton Company, Inc. will continue to promote the use of reclaimed water for irrigation where it is economically feasible. South Walton Company, Inc. has recently completed a major reclaim water project at our Wastewater Treatment Facility. This upgrade will allow us to use reclaimed water for chlorination, irrigation, and wash down. South Walton Utility Company, Inc. currently uses reclaimed water at the following sites.

- ❖ Wastewater Treatment plant for chlorination, irrigation, wash down.
- ❖ Emerald Bay Golf Course for irrigation.
- ❖ The Gardens Golf Course for irrigation.
- ❖ Regatta Bay Golf Course for irrigation.
- ❖ Emerald Shores Homeowners' Association for irrigation.
- ❖ Seascape Golf Course for irrigation.

Future projects for reclaimed water:

- ❖ Reuse water line west on old Highway 98.

*Recommendation: Expand existing reclaim trunk system to accommodate all large commercial users.*

## ***REDUCTION OF “UNACCOUNTED FOR” WATER***

The difference between the amount of water produced and the amount of water billed is known as “unaccounted for” water. Sources of unaccounted for water include un-metered water used for flushing lines, tank drainage for maintenance purposes, fire protection, main breaks, leaks, inaccurate meters, non-functioning meters, and theft. It is difficult to account for each of these losses individually and South Walton Utility Co., Inc. does not do so. Instead, South Walton Utility Co., Inc. makes a comparison of the amount of billed and the amount of water produced each month to acquire a total of unaccounted for water. Month-by-month percentages are somewhat misleading due to variations in meter reading dates and production reports. For this reason, it is important to evaluate the unaccounted for water status on a quarterly, if not yearly, basis in order to get an accurate picture of the unaccounted for water.

In 1957, the American Water Works Association Leak Detection Committee published a report (American Water Works Association [AWWA], 1957), which included the statement that unaccounted for water “may vary from 10 to 15 percent in a well-operated system where consumption is between 100 and 125 GPCD.” The 15 percent unaccounted for water goal was the accepted standard for many years in the water works industry. Given today's high cost of water production and the many technological advances aimed at reducing water loss the AWWA now recommends that utilities establish a goal for unaccounted for water of less than 10 percent (AWWA, permit #S840010, dated April 25,1996).

*Recommendations: Establish program to evaluate and replace water meters based on manufactures recommendation as to life span of meter -- ; sonic monitoring of water lines for leaks; meter Fire Department water usage (non billable).*

# ***RATE STRUCTURE AS A MEANS OF DEVELOPING WATER CONSERVATION***

Various rate structures are available which may offer an incentive to consumers to conserve water throughout the year. By utilizing a conservation-oriented rate structure it conveys to the consumer the message that water is a valuable resource worth conserving. These rate structures can also focus rate increases on those users who have the highest discretionary use and thus the greatest ability to reduce their use. A conversion to a variable rate structure based on conservation only could create some dissatisfaction from the public because of a perception of unfairness or inequitable costs. If it is determined that this type of rate structure should be used, a concerted effort to gain public approval of the plan prior to implementation would be absolutely mandatory.

## Rate Structures:

- ❖ **Seasonal Rate Structure:** Incorporates two or more uniform volume charges during different seasons of the year. Generally, this would mean a higher rate is charged during the summer than during the winter. With this type of rate structure the conservation incentive would be focused on the season when water use and delivery cost is highest.
- ❖ **Inverted Block Rate Structure:** Increasing water unit prices at higher levels of use. Under this structure water users with minimum use levels benefit and those users with high monthly use pay increasing higher rates thus providing a strong incentive for large users to reduce their use.
- ❖ **Excess-Use Rate Structure:** Utilizing an excessive-use rate structure, base water use is defined as the average use during a certain non-peak period (calculated separately for each customer) and is charged at a basic rate. During a peak period or season, water use above some percentage of this base level is charged at the base rate plus an excess-use rate.
- ❖ There are many variations to the excess-use rate structure. For example, a small additional charge would be assessed for moderate use in excess of the base use and a large amount for use that is much higher than average.

*Recommendation: Consider implementing one of the suggested rate structures only after exhausting all other means of water conservation.*

## ***CONCLUSION***

Without a comprehensive Water conservation Plan, South Walton Utility Company, Inc. will have to continue looking for sources of potable water to meet our growing needs. We will continue to emphasize to all our customers how critical water conservation is, not only from an environmental standpoint, but also from a fiscal standpoint.

Based on statistical data, when our Water Conservation Plan and Replacement Program is fully implemented we should anticipate a 10 to 30 percent reduction in water consumption. South Walton Utility Company, Inc. will continue to refine and update our Water Conservation Plan to keep up with the changes we are experiencing within our franchise area. Water is a limited resource that we can not take for granted. Let's all work together to conserve water through our Water Conservation Plan.

DATE: November 14, 2000

TO: South Walton Utility Co., Inc. Board of Directors

FROM: Water Conservation Committee  
Ken Creel Jerry Gruber  
Jim Lohr Amy Sallee

SUBJECT: South Walton Utility Water Conservation Plan

The South Walton Utility Water Conservation Plan mandated by the Northwest Florida Water Management District is being submitted for your review and approval.

The Water Conservation Committee has worked diligently on the plan and after much review makes the following recommendations which we believe will work toward our ultimate goal of conserving water in our service area.

- ❖ Recommend review of inverted block rate structure versus developing a new rate structure. Pricing increases (unless they were substantial) would probably not affect the majority of users in this area since many are transient, however, it could create an unneeded hardship on low or fixed-income families.
- ❖ Recommend we implement a plumbing fixture retrofit program designed to enhance water-use efficiency. This would include, at a minimum, toilet tank displacement and faucet and showerhead aerators/flow restrictors. It is suggested that an exchange/replacement program be utilized. Desired completion by the year 2008. Recommend that South Walton Utility Co., Inc. Board of Directors approve funding for our Water Conservation Retrofit program. Estimated cost - \$116,500.
- ❖ Recommend as an incentive to our top 5% water consumers a one time 10% reduction to their monthly water bill for retrofitting all fixtures within a thirty-day period from the date of delivery. Estimated cost - \$6,000.