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General Manager

THE DISTRICT'S SERVICE AREA

**South Island Public Service District (SIPSD)
serves 25,000 customers**

- The District provides Water & Wastewater Services from the Cross Island Bridge to Fresh Market Center
- Our service area includes all four of the South-End Plantations which include Sea Pines, Wexford, Shipyard and Long Cove
- Our district also encompasses Pope Avenue, Coligny, Forest Beach and Point Comfort in their entirety



WATER SYSTEM



THE WATER SYSTEM

The district's average daily demand is 6 million gallons of water per day with a peak demand of 8.5 million gallons

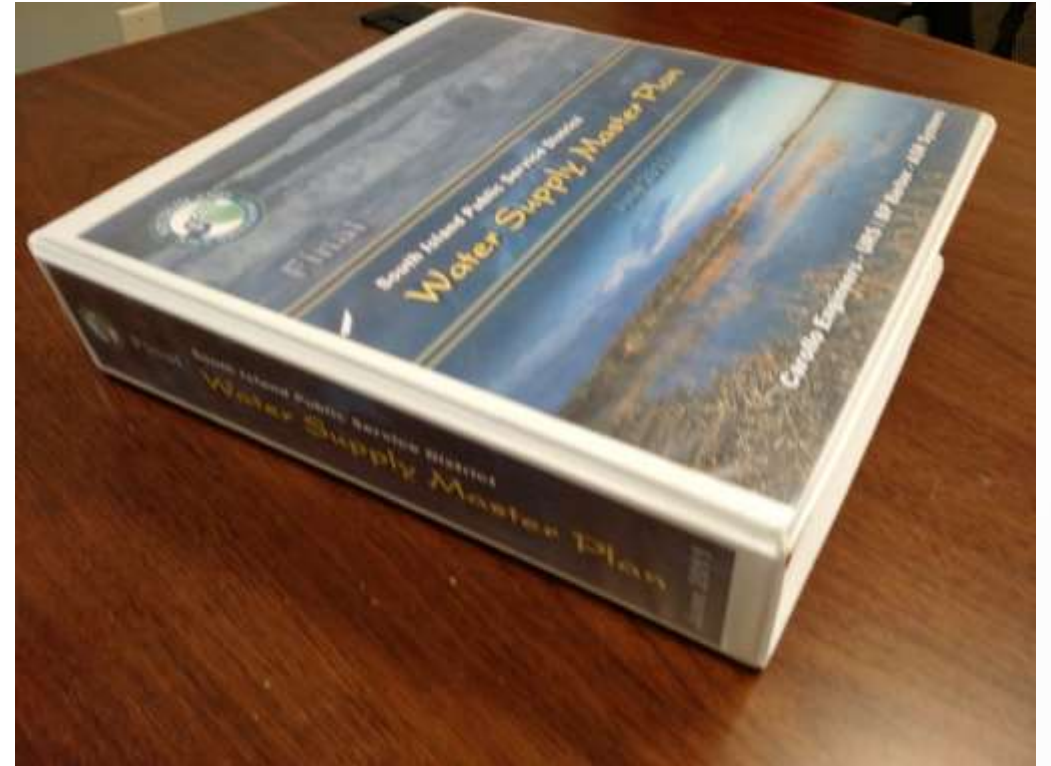
The water is produced from a combination of:

- 13 Floridan Wells (Approximately **120'** Deep)
- 1 Cretaceous Well (Approximately **3,832'** Deep)
- 1 Reverse Osmosis Water Treatment Plant which produces 3 million gallons of water per day



MASTER PLAN

- In preparation and to provide a plan of action for the future, the District and its consultants have developed a Water Supply Master Plan
- The plan details the District's water needs through the year 2050
- The "Plan" enables the District to be proactive in meeting current and future water demands



MASTER PLAN

Phase I of the plan has just been completed, which includes construction of the following:

- Two Aquifer Storage and Recovery (ASR) Facilities
- A 2.5 mile, 16" water distribution pipeline
- A redundant well (drilled into the Middle Floridan Aquifer) at our Reverse Osmosis Facility
- The Phase I infrastructure costs were 13 Million Dollars



WATER STORAGE

Our water is stored using a combination of:

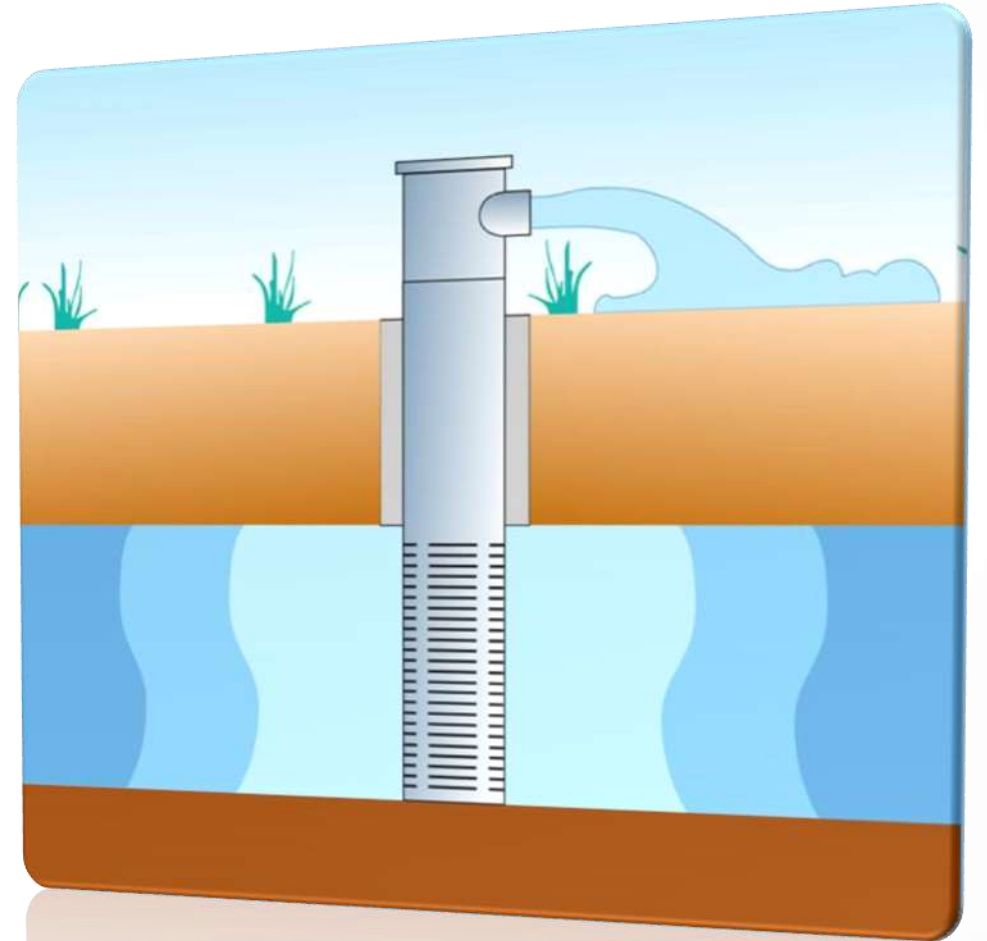
- A 2 Million Gallon Above Ground Storage Tank
- 3 Elevated Storage Tanks (Water Towers) with a 300,000 gallon capacity each
- 2 Aquifer Storage and Recovery (ASR) Facilities storing 300 Million Gallons



WHAT IS ASR?

Aquifer Storage & Recovery

- It is a cost effective way to store huge volumes of water using natural geologic formations beneath the earth's surface
- The District's two facilities store a total of **300 million gallons** of water
- These two facilities allow water to be stored when demand is low and recovered during high demand periods



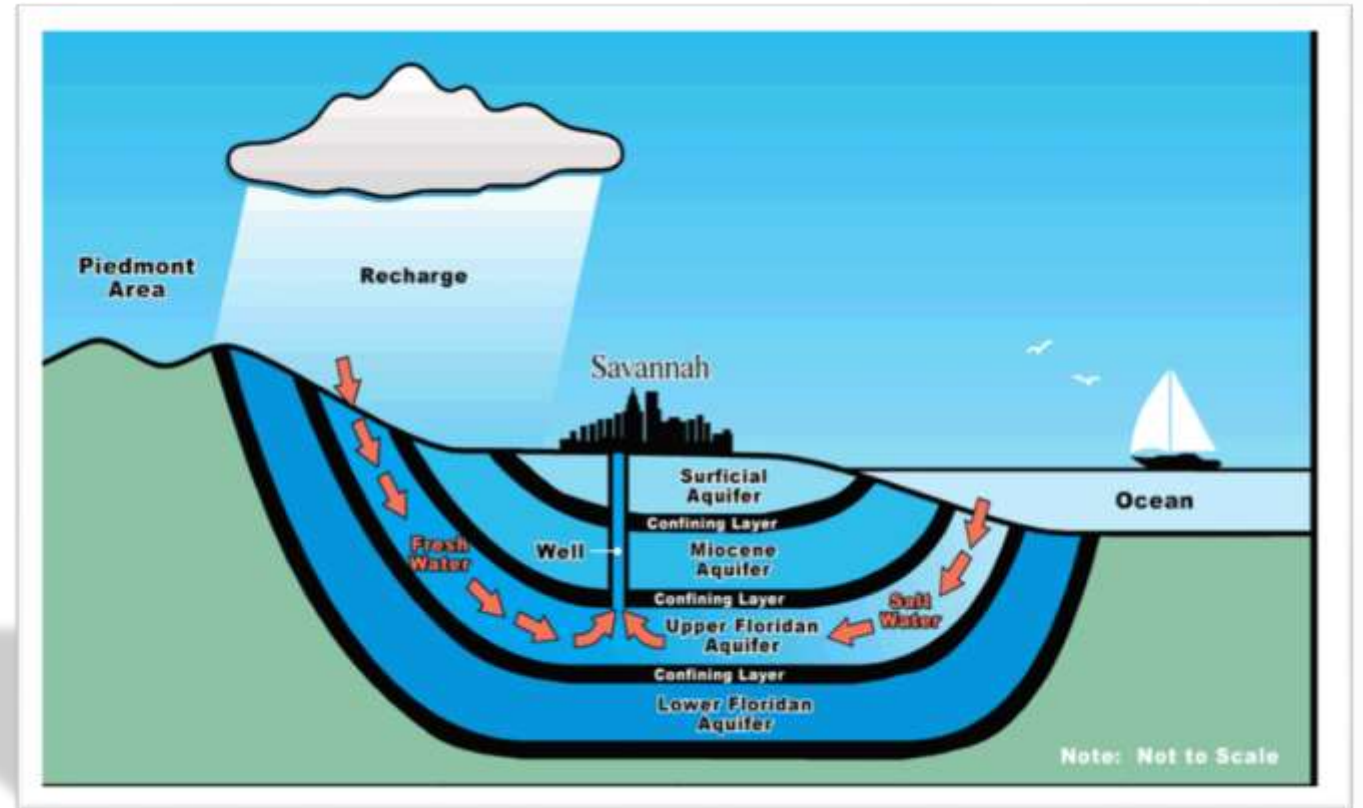
WATER ISSUES FACING US

- Saltwater intrusion into the Upper Floridan Aquifer (UFA) has been documented since the 1970's
- In 2009, high chloride levels in the Long Cove Potable Well #1 resulted in the well being removed from service
- As Savannah and surrounding areas have developed and increased groundwater usage out of the UFA (decreasing pressure in our aquifers) saltwater has begun to enter the aquifers and mix with the fresh water



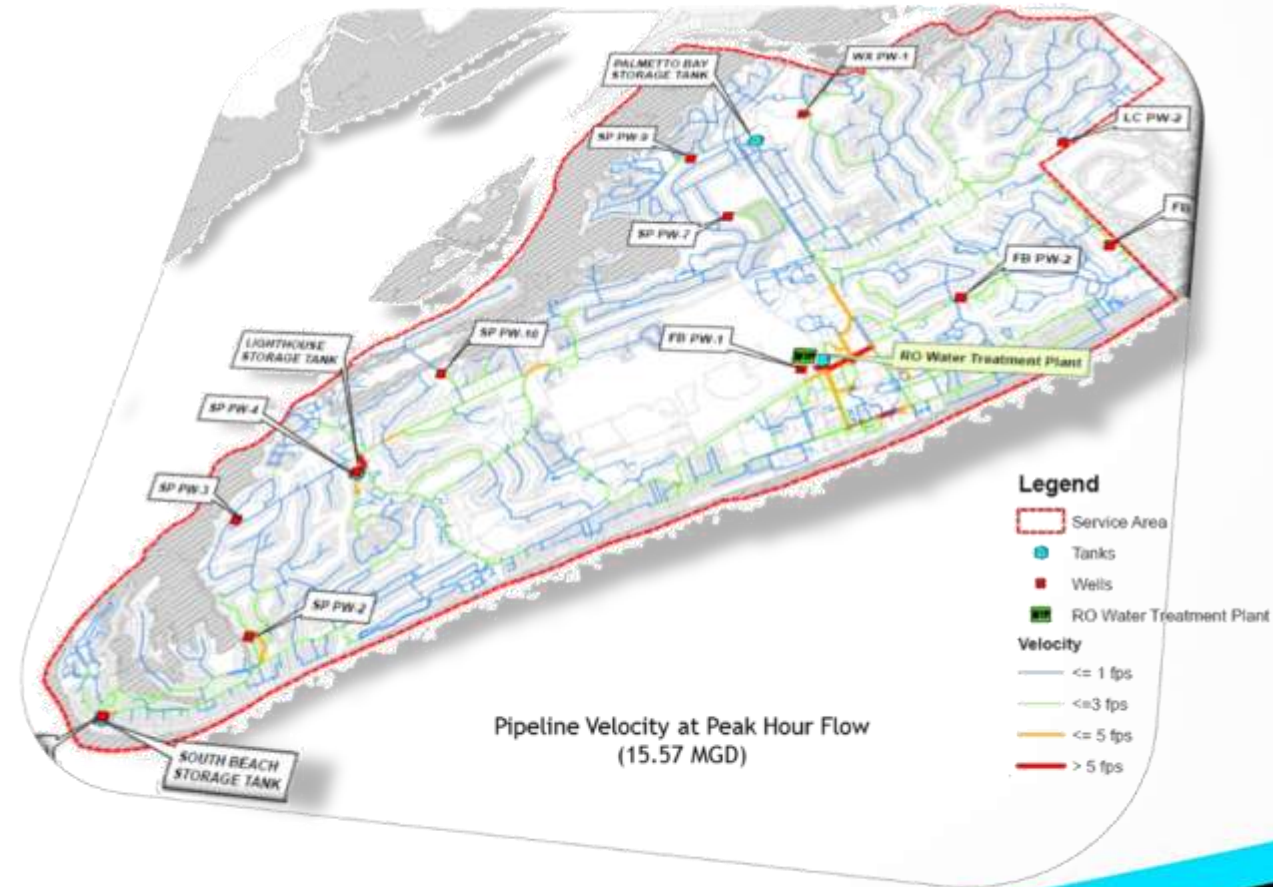
SALTWATER INTRUSION

The District is mitigating the problems associated with saltwater intrusion by increasingly relying on the Cretaceous Aquifer (and other Aquifers below the Floridan) and with improvements to our Reverse Osmosis Water Treatment Plant



SYSTEM CAPACITY

- Our customers use an average of **6 million gallons** of potable drinking water each day
- With the recent improvements, our facility can produce an average of **11.5 million gallons** per day



THE REVERSE OSMOSIS WATER TREATMENT PLANT

Our Reverse Osmosis Plant can efficiently produce 3 million gallons of water each day



RATES

- Our residential rate starts at \$1.08 for 1,000 gallons of water
- Our water and sewer rates are amongst the lowest in South Carolina
- The District has the authority to levee taxes, but has not done so





- For **\$1.08** our residential customers get 1,000 gallons of clean, delicious drinking water
- To put that in perspective, this is what that looks like...
3,785 bottles of water!

THE FUTURE

- Over the last 20 years, the District has spent **33 million dollars** for supplemental supply and storage of fresh drinking water
- The District is on the **forefront** of technology and is addressing our issues **proactively**

We are maintaining, further developing and protecting your water supply in an efficient manner



COLLECTION SYSTEM



THE COLLECTION SYSTEM

The District's collection system is a series of pump stations, gravity sewer lines and force mains which collect and convey wastewater (sewage) to the Wastewater Treatment Plant



THE COLLECTION SYSTEM

- Our collection system includes 615,000 feet of pipe
 - That's over 100 miles of gravity sewer



PUMP STATIONS

The system includes 97 pump stations which were formerly divided as follows:

- Sea Pines PSD – 59 Pump Stations
- Forest Beach PSD – 24 Pump Stations
 - Long Cove – 8 Pump Stations
 - Wexford – 6 Pump Stations
- An oxidizer is injected at several points along the collection system to mitigate corrosion and odor. There are a couple of stationary air scrubbers within the collection system



The District utilizes a
Vac-Truck to inspect
and clean sewer lines



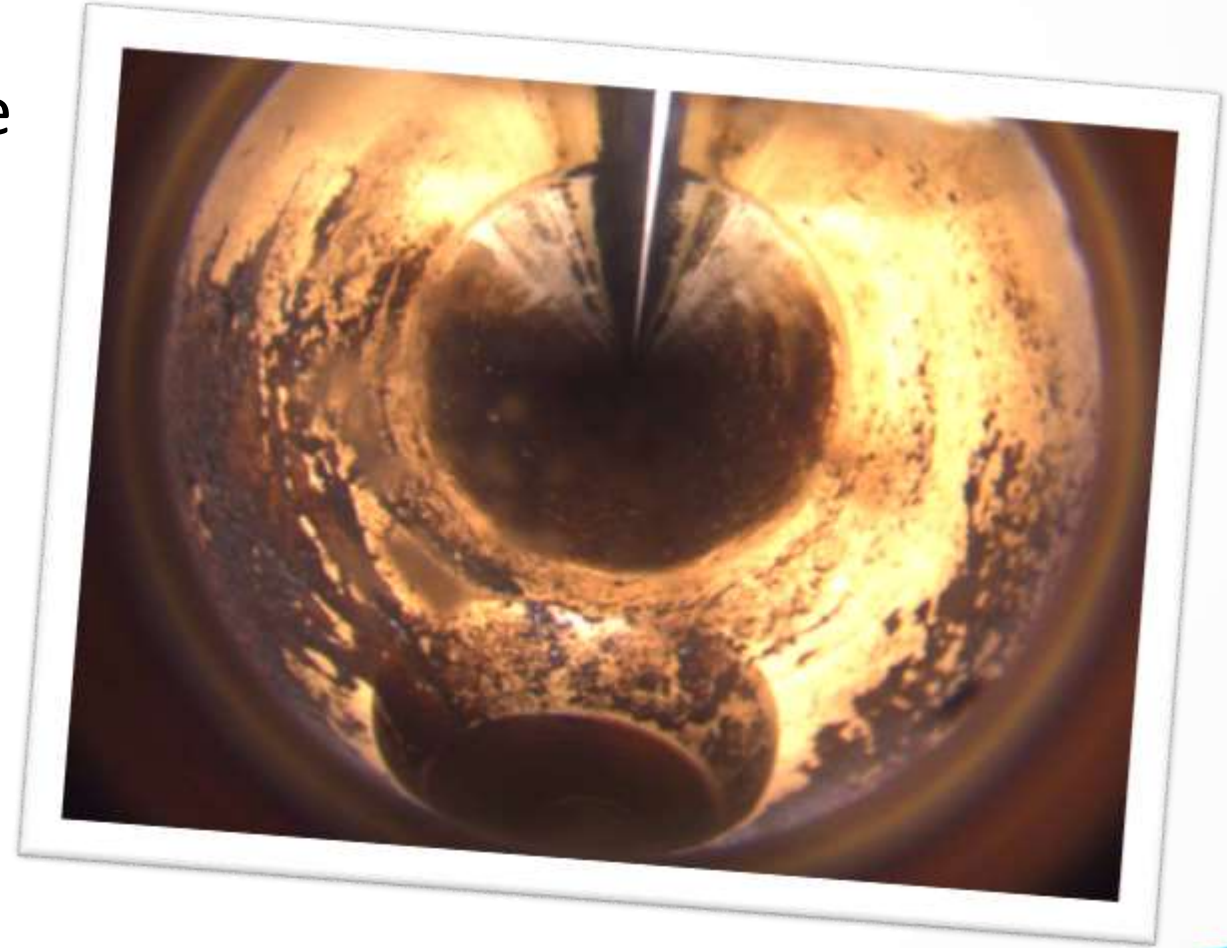
ROBOTICS

- The District just completed a capital improvement project to record and assess every inch of sewer line
- The District retained a company to send robots down each and every gravity sewer pipe in our system
- These robots were equipped with a video camera, recording footage of the condition of the sewer pipe



HD VIDEO

- The District has HD video of our entire collection system
- This enables us to effectively target specific areas of our system that need rehabilitation or replacement



WASTEWATER TREATMENT PLANT

THE WASTEWATER TREATMENT PLANT

- The District's reclaimed water system is one of a kind
- It provides reclaimed water services to 7.5 golf courses and 130 commercial customers
- This equates to an average of 380 million gallons of reclaimed water sold every year



THE WASTEWATER TREATMENT PLANT

- An average of 440 million gallons of reclaimed water is pumped into our wetland restoration program each year
- This program covers 105 acres in the Sea Pines Forest Preserve, restoring and maintaining the wetlands
- It is the oldest natural wetland system in the entire southeast region of the United States



CAPACITY

- Over 900 million gallons of water each year is recycled
- Our facilities are designed to treat and recycle 5 million gallons of water each day, and our current demand averages 2.5 million gallons
- Our Wastewater Treatment facilities employ state of the art technologies



IMPROVEMENTS

- The District recently finished construction on our new solids handling facility, laboratory facility and maintenance building.
- Currently under construction are improvements to the headworks facility including new screens, grit separation, and a dual phase odor scrubber



THE DISTRICT'S LABORATORY

- The District treats **2.5 million gallons** of wastewater daily and operates the only full reclaimed water facility on South Carolina's coast
- Here's a photo of the laboratory at our brand new Office Building at the Sea Pines Wastewater Treatment Plant
- Construction was completed last year



ODOR MITIGATION

- The District has an Odor Abatement plan which is reviewed and updated annually
- The plan outlines best management practices and ways in which to mitigate odors



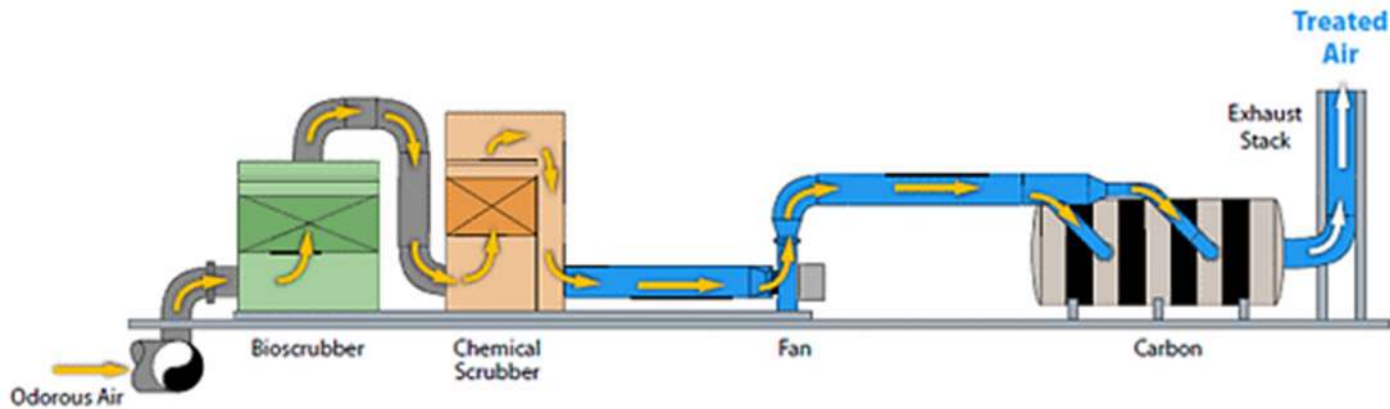
ADDRESSING ODORS

- One of the methods used is a series of odor loggers, which record and proactively monitor odor levels
- Tools such as these provide information to our operators and adjustments are made as necessary



AIR SCRUBBER

- The District is completing construction and installation of a \$250,000 Air Scrubber at our Wastewater Treatment Plant
- The new dual-phase Air Scrubber will help to further reduce odor at the plant



IN CLOSING...

- In the last 20 years, the District has spent over 33 million dollars on supplemental water supply improvements
- In the last 3 years alone, we've spent over 13 million on Phase I Infrastructure Improvements
- In the past 4 years, over 6 million dollars have been spent on the Collection System and Wastewater Treatment Plant



SOUTH ISLAND PUBLIC SERVICE

- Continues to employ an aggressive capital improvement plan
- Maintains low rates without levying taxes
- Operates some of the most technologically advanced systems in the industry

The District's Board of Commissioners and staff have the capability, knowledge, and foresight to provide service to existing customers as well as future projects or redevelopment



