

-- Customer Pipe Line --

*Your Direct Connection to KW Resort Utilities, Corp.
Wastewater Questions & Solutions*

*W*elcome! to the second issue of

Pipe Line; a monthly newsletter published to keep our utility customers informed of the important wastewater environmental issues that impact all of us in the Lower Keys.

KW Resort Utilities, Corp. is committed to responsible management of Lower Keys wastewater to protect and preserve

the Keys environment today and for future generations.

Pipe Line will address questions regarding wastewater hook-up and the State of Florida's schedule to have all Keys households connected to an approved wastewater treatment facility.

Archived copies of *Pipe Line* and other information can be found on our new web site: www.KWRU.com

Pipe Lines:

Q&A

*Q. This month
Pipe Line asks ...*

*How is our wastewater treated
and then released into the fragile
environment of the Lower Keys?*

A. On our tropical island paradise there may be times we recall the old saying: Water, water everywhere and not a drop to drink! True, if you're out on the sea; however, not if you are at the KW Resort Utilities wastewater recycling facility.

While there is not a demand for the utility company to bottle recycled wastewater, over a 100 million gallons a year of wastewater is recycled into re-usable water.

Recycling Lower Keys wastewater saves in many ways...

KW Resort Utilities' recycled water saves Monroe County \$130,000 annually...

The Monroe County Stock Island Detention Center, uses KW Resort Utilities recycled non-drinking water for bathroom toilet facilities, air conditioning cooling water and fire protection.

The recycled water program is part of a total wastewater agreement KW Resort Utilities has with the Stock Island Detention Center saving Monroe County \$130,000 annually.

Key West Golf Club saves 88 million gallons of Florida Keys aqueduct water supply...

Another daily use of recycled Stock Island wastewater is the purchase of recycled wastewater by the Key West Golf Club to water the golf course.

The Golf Club alone saves 88 million gallons of aqueduct water supply through the use of recycled water from the KW Resort Utilities plant.

Keys to exceed water supply demand in 20 years...

Studies have shown that our drinking water demand in the Keys will exceed the available supply in the next 20 years by 2025.

FKAA will be ready...

The Florida Keys Aquatic Authority (FKAA) plans to build a reverse osmosis (RO) plant in order to meet this demand. The cost per

gallon of RO generated water is very high compared to the cost of recycled water.

KW RESORT UTILITIES will expand economical wastewater reuse program...

Recycled wastewater provides another economic valuable resource!

It is because of this significant economic advantage that communities all over the United

States have tapped into their wastewater as an economical and environmentally sensible supply for (non-drinking) water. Like the City of Cape Coral, Fla., where 2 water lines are run to each home (see pg. 3).

As our State's population increases, so will the demand on our water supply. The need to recycle wastewater for reuse purposes will become even more necessary.

City wastewater reuse plan starts with 2 pipes in the ground...

There are Florida communities such as the City of Cape Coral, neighboring Fort Myers, where two water pipes are required to be run to every home serviced by the city sewer system.

The first water line is for in-home drinking water.

The second water line required by the city delivers

recycled water to homes and businesses.

In Cape Coral all landscape watering and vehicle washing are permitted only from the recycled water line. The use of recycled water by Cape Coral saves valuable drinking water supply.

How does wastewater become recycled water for reuse purposes?

- 1.) Wastewater is piped from your home or business to the central Stock Island treatment plant.
- 2.) At the plant, preliminary treatment begins with the removal of non-wastewater debris such as plastics, rags, gravel, sand and other debris.
- 3.) The next step is secondary treatment where a natural organic biological process breaks down the wastewater in an aeration basin.
- 4.) From the aeration basin the water enters into a clarifier sedimentation process where heavier solids settle out.
- 5.) Once this process is completed the water moves to a filtration stage and finally to a high-level disinfection stage.
- 6.) At this point, the wastewater has completed its process and is now available for use in irrigation, cooling towers for air conditioning, and fire prevention applications.

KW Resort Utilities recycles 100 dry tons of solid waste as fertilizer to central Florida farmers...

Another important environmental benefit that comes from the Stock Island wastewater treatment plant is the natural fertilizer used by the farmers of St. Lucie County, Fla.

Manufactured fertilizers produce environmentally harmful chemical by-products whereas the bio-solids are 100% natural.

The solids that settle out of the bioprocess are land-applied in place of manufactured fertilizers.

Last year alone KW Resort Utilities supplied over 100 dry tons of natural fertilizer.

AWT is coming...

Environmentally friendly use of wastewater will soon be further improved and expanded throughout Florida with a process called Advanced Wastewater Treatment (AWT), which removes nitrogen and

phosphorus from wastewater.

The State of Florida has legislated wastewater must be connected to an approved AWT treatment facility by 2010.

Monroe County saves \$500,000 in AWT upgrade cost with KW Resort Utilities contract...

Monroe County will save over \$500,000 in wastewater treatment upgrade expense to meet State required levels of Advanced Waste Water Treatment (AWT) by 2010.

Resort Utilities, Corp. wastewater treatment system has yielded many savings for Monroe taxpayers.

The County's decision to no longer operate its own wastewater treatment plant for the County Detention Center on Stock Island and instead connect to the KW

Besides saving a total \$450,000 in operating expenses since 2001, the county will save another \$500,000 in AWT upgrades. That's almost \$1 million in total county wastewater expense savings from the KW Resort Utilities contract.

Did you know...

The quality of KW Resort Utilities recycled wastewater exceeds the State standard for safe reuse as non-drinking water supply for residential and commercial water needs.

New monthly feature! Pipe Line's Staffer of the Month...

Each month Pipe Line will share our Utility Staffer of the month. Our utility service team is working hard to provide the best service possible for our customers. Each team members understands their important role in the proper management of wastewater to protect our Lower Keys environment.

Ed Castle, Senior Plant Engineer KW Resort Utilities Staff Person of the month

"Ed provides us with a depth of excellent experience and qualifications... We are proud to have him on the team!"

...Bill Smith, President of KW Resort Utilities, Corp.

With over 19 years of Florida Keys experience in the field of Treatment Plant Project Engineering Design and Operations, Ed Castle is known among his peers as the "Dean" of Keys Wastewater Systems Management.

"Ed provides us with a depth of excellent experience and qualifications as a State licensed Professional Engineer and Wastewater Treatment Plant Operator. We are proud to have him on our team," said Bill Smith, President of KW Resort Utilities, Corp.

Knowledge is important and so are relationships. The "Dean" has developed working relationships with representatives of the agencies critical to the Florida Keys challenge of treating wastewater to protect our environment. Some of those long-term business associations include the Florida Department of Environmental Protection, the U.S. Environmental Protection Agency,

National Oceanographic Atmospheric Association, Monroe County officials, the City of Key West, the U.S. Navy and the Department of Health.

As one government official put it: "When Ed speaks on wastewater issues, I listen."

"It a is great bonus for us to have Ed's knowledge, experience and capabilities as the Senior Project Engineer for our team," said Chris Johnson, President of Keys Environmental, Incorporated. Keys Environmental is the contracted treatment plant operator of the KW Resort Utilities Stock Island facility.

When Ed is not busy protecting our environment, he enjoys it as an avid fisherman. Besides his Florida Keys home of the past 15 years, Ed likes to spend time with friends on Cedar Key along Florida's northwest coast.

Proposal will expand KW Resort Utilities in Lower Keys...

WS Utilities, Inc., which operates KW Resort Utilities, Corp., has submitted a proposal to the U.S. Naval Air Station, Key West to use the Navy's Boca Chica wastewater facility to also serve Big Coppitt, Rockland and Geiger Key.

Millions in dollars of savings are available for the Big Coppitt Key sewage project if this proposal is accepted. The use of the Boca Chica plant will also avoid the need and major expense to construct a sewage plant on Big Coppitt, Rockland or Geiger keys.

WS Utilities has also presented a contract for a joint relationship to the Florida Keys Aqueduct Authority (FKAA) to sewer Big Coppitt, Rockland and Geiger keys. This would combine the existing resources and facilities of the FKAA, WS Utilities Stock Island facilities and the U.S. Navy's Boca Chica plant.

Significant savings are realized when the number of users increase in the same utility providers' area. WS Utilities hopes to have the opportunity to offer these savings to the County for the residents of Big Coppitt, Rockland and Geiger keys.

All Monroe County households and businesses must be connected to a State-approved wastewater (sewage) treatment facility by 2010.

As part of the purchase contract, WS Utilities would upgrade sections of existing Navy pipe line and improve the wastewater treatment facilities at Boca Chica to new State Advanced Wastewater Treatment (AWT) requirements which take effect in 2010.

The utility company's web site, KWRU.com, will have more information on this project as it proceeds. The U.S. Navy issued a Request for Proposal (RFP) in 1999, which WS Utilities responded to in 2003.

KW RESORT UTILITIES, Corp.

*Offering Environmentally Friendly & Cost-Efficient
Wastewater Solutions for the Lower Florida Keys*

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