BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION DOCKET NO. 20170141-SU,

KW RESORT UTILITIES CORPORATION RATE CASE DIRECT TESTIMONY OF KEVIN G. WILSON, P.E.

March 14, 2018

1	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.
2	Α.	My name is Kevin G. Wilson, and my business address is 1100 Simonton St.,
3		Key West, FL 33040. I am employed by Monroe County as Assistant County
4		Administrator in charge of Public Works and Engineering. I also serve as the
5		County Engineer.
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7	Q.	ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?
8	A.	I am testifying on behalf of the Board of County Commissioners of Monroe
9		County, Florida. To the best of my knowledge, Monroe County is the largest
10		customer of K W Resort Utilities Corp. ("KWRU"), the utility seeking rate
11		increases in this proceeding.
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13	Q.	PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.
14	A.	I have a Bachelor's Degree in Engineering from Carnegie Mellon University. A
15		copy of my resume' is provided as Exhibit KGW-1 to my testimony.

1 I have worked for Monroe County since July 2006. I was promoted into my 2 current position of Assistant County Administrator in charge of Public Works and 3 Engineering in 2015. In my current position, I am responsible for oversight of the Wastewater, specifically including oversight of design, 4 following areas: 5 construction, and funding of the centralized wastewater system in the Florida 6 Keys that is owned by Monroe County and operated by the Florida Keys 7 Aqueduct Authority; Project Management; Engineering, including construction 8 and maintenance of Roads and Bridges; Solid Waste Programs; Solid Waste 9 Operations; and Fleet Management. I have responsibility for overall 10 management of all capital construction for the County, which includes buildings, 11 sewers, roads and bridges. I oversee a staff of approximately 155 people and 12 supervise annual budgets in the amount of approximately \$40 million in 13 operation expenses and \$90 million in capital expenditures. I am also the senior 14 engineering manager for the County (the County Engineer). Prior to my current position, from October 2011 until April 2015, I was a Division Director for 15 16 Monroe County in charge of Public Works and Engineering. My responsibilities and duties were essentially the same then as in my current position. Prior to October 2011, I was the Director of Project Management and Engineering. My responsibilities and duties in that capacity included oversight of all County road and building construction.

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1		From 2003 to 2005, I was a contract employee with the Federal Government
2		working with the U.S. Army. I am also a retired Lieutenant Colonel with the
3		Army Reserve.
4		Prior to that, from approximately 1994 to 2003 I worked with two companies
5		based in Austria. In that capacity, I developed and executed engineering
6		projects, including nuclear engineering and other power generation and
7		environmental cleanup projects, in the Middle East, Western Europe, Eastern
8		Europe and the former Soviet bloc countries, including Russia.
9		Prior to that, I worked with a company in Korea, and prior to that time, I
10		worked with Procter & Gamble for approximately 17 years.
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12	Q.	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE FLORIDA PUBLIC
13	,	SERVICE COMMISSION ("COMMISSION" OR "PSC")?
14	A.	Yes. I testified on behalf of the Board of County Commissioners of Monroe
15		County in KWRU's last rate case, Florida Public Service Commission Docket No.
16		150071-SU.
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18	Q.	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY ECONOMIC,
19		ENVIRONMENTAL, LAND USE, OR SIMILAR REGULATORY OR PERMITTING
20		PROCEEDINGS RELATING TO WATER SERVICE, WASTEWATER OR SEWAGE

TREATMENT SERVICE, OR THE PROVISION OF REUSE WATER SERVICE?

A. Yes. I have previously testified in four (4) cases regarding wastewater service in

Monroe County, including depositions, administrative hearings, and circuit court

trials. A list of these cases is attached as Exhibit KGW-2.

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Q. DO YOU HOLD ANY PROFESSIONAL CERTIFICATIONS?

6 A. I am a Registered Professional Engineer, licensed to practice in Florida and Ohio.

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Q. ARE YOU SPONSORING ANY EXHIBITS WITH YOUR TESTIMONY?

9 A. Yes, I am sponsoring the following exhibits:

KGW-1	Resumé of Kevin G. Wilson, P.E.
KGW-2	List of prior testimonies
KGW-3	Aerial Photo of Stock Island
KGW-4	South Stock Island 2010 Census Information
KGW-5	2010-2014 American Community Survey, 5 Year Estimates
KGW-6	2000 Monroe County Sanitary Master Wastewater Plan – "Hot Spot" Excerpt, Exh. 6-1
KGW-7	Monroe County Code, Section 20-102
KGW-8	Excerpt from KWRU Stock Island WWTP, Public Utility Appraisal Report, Effective Date: December 31, 2014, Report Date January 2015
KGW-9	Projected Future 2018-2019 Sewer Demands (KWRU)
KGW-10	Actual Usage Data for Stock Island Marina Village and Oceanside Properties, 2016-2018

Q. PLEASE SUMMARIZE YOUR DUTIES AND RESPONSIBILITIES IN YOUR CURRENT POSITION AS THEY RELATE TO WASTEWATER SERVICE ON STOCK ISLAND.

PLEASE INCLUDE A SUMMARY OF ANY PRIOR EXPERIENCE THAT ALSO INVOLVED DUTIES AND RESPONSIBILITY WITH RESPECT TO WASTEWATER SERVICE ON STOCK ISLAND.

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I have worked for Monroe County since July 2006. With regard to wastewater service on Stock Island, in my current position, I am responsible for oversight of wastewater collection and treatment, specifically including oversight of design, construction, and funding of the centralized wastewater systems in the Florida Keys that are owned by Monroe County and operated by the Florida Keys Aqueduct Authority. My duties and responsibilities as Monroe County's Assistant County Administrator necessarily include being familiar with the history of the County's contractual relationship with K W Resort Utilities Corp. ("KWRU") dating back to 2001, when the County entered into a certain "Utility Agreement" with KWRU, pursuant to which the County is KWRU's customer for wastewater treatment service for County facilities on Stock Island. In particular, I am also familiar with the certain "Capacity Reservation and Infrastructure Contract" dated July 31, 2002, between the County and KWRU. In that Agreement, the County agreed to pay KWRU up to \$4.6 million in order to enable KWRU to construct the wastewater collection system on South Stock Island, in return for which the County received 1,500 Equivalent Dwelling Units ("EDUs," also

referred to as Equivalent Residential Connections or "ERCs") of reserved capacity on KWRU's system. I am also familiar with subsequent agreements between the County and KWRU. In addition, I am familiar with the County's payment of KWRU's rates as a customer for wastewater treatment services and reuse water service on North and South Stock Island. In addition, my duties necessarily include being familiar with economic and population growth, potable water and wastewater treatment requirements for existing and new residential and commercial establishments, and related matters throughout the County, including on North and South Stock Island.

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PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

My testimony covers three areas. First, my testimony provides factual information regarding the numbers of existing residential, commercial, and industrial water users on Stock Island that are required to connect to KWRU's system as soon as possible by statutes and regulations, and also regarding the projected numbers of new customers that are likely to connect to KWRU's system within the first twelve months following the effective date of any new rates that the Commission may approve for KWRU in this proceeding. Based on projections of new customers, based on firm information regarding such new customers, including actual usage data for certain major developments, and

using standard usage amounts for residential and general service customers, I provide information regarding the number of additional gallons of wastewater treatment service that KWRU can reasonably be projected to provide to the customers who connect to its system over this time period. For clarity, the time period to which I refer is the twelve months from July 1, 2018 through June 30, 2019; this time period is conservatively assumed to be representative of the first twelve months that any new rates for KWRU would be in effect. I say "conservative" because it appears that any new rates will not be effective before August 2018, such that there would likely be additional growth in sales and revenues, beyond what my projections here show, in the first year in which the new rates will be in effect.

Second, my testimony explains the requirements for all existing and new water users on Stock Island to connect to the wastewater treatment system of KWRU as soon as practicable. These requirements are mandated by Florida Statutes and also by regulations of Monroe County and the Florida Department of Environmental Protection ("FDEP").

Third, my testimony describes the history of the contractual relationships between KWRU and Monroe County, and explains the payment of contributions in aid of construction, sometimes also called capacity reservation fees, to KWRU.

Q. PLEASE SUMMARIZE THE MAIN CONCLUSIONS OF YOUR TESTIMONY.

A.

The main purpose of my testimony is to provide reliable information regarding the amount of wastewater treatment service that KWRU will experience when new rates are in effect, including numbers of additional customers beyond those used by KWRU in its proposed test year ending June 30, 2017. This information is important to enable the Commission to set rates that will match the additional investment and operating costs outside the 2016-2017 test year that KWRU has requested be included in its revenue requirements.

Based on my knowledge of the applicable statutory and regulatory requirements, my knowledge of the numbers of existing residential units and general service establishments (commercial units), and also on my knowledge of the expected new residential and general service establishments that have been permitted for occupancy and that I expect to be permitted for occupancy between now (March 2018) and the July 2018-June 2019 period that I analyzed as explained above, KWRU has connected 62 existing residential units and is projected to connect an additional four (4) residential units to its system as a whole. KWRU will also add two new general service establishments (with a total of three meters) to its system by July 2018, the County's Bernstein Park and the new Florida Keys SPCA (Animal Shelter) facility. Additionally, three other general service establishments, the Oceanside Investors property and the Stock Island Marina Village on South Stock Island, and the Gerald Adams School on North

Stock Island, will have significant additional flows in the July 2018-June 2019 period, over and above what they experienced in KWRU's test year. Adding all of these projected wastewater treatment demands or requirements, I estimate that KWRU will treat, and charge for, approximately 10.55 Million additional gallons of wastewater treatment service in the twelve months from July 1, 2018 through June 30, 2019, which is approximately the first year after the new rates approved in this proceeding, if any, would be in effect. This 10.55 Million gallons per year represents an increase of approximately 6 percent over KWRU's test year gallons for Residential and General Service wastewater treatment.

STOCK ISLAND AND KWRU'S SYSTEM

- Q. PLEASE DESCRIBE STOCK ISLAND, ITS POPULATION AND DEMOGRAPHIC CHARACTERISTICS, ITS STATE OF DEVELOPMENT, DEVELOPMENT PROSPECTS, AND OTHER CHARACTERISTICS THAT ARE PERTINENT TO THE DEMAND FOR WASTEWATER TREATMENT SERVICE ON STOCK ISLAND.
- A. Stock Island is an island immediately east or northeast of Key West as one heads toward mainland Florida. Please see Exhibit KGW-3 to my testimony, which is an aerial photograph of Stock Island.
 - U.S. 1 divides Stock Island into what are commonly referred to as "North Stock Island" and "South Stock Island." North Stock Island is part of the City of Key West, and is generally characterized by upscale development, including a

golf course at the Key West Golf Club, and institutional facilities. The institutional facilities include Florida Keys Community College, the Lower Keys Medical Center, the Tennessee Williams Theatre, the Monroe County Sheriff's office, jail and Juvenile Detention Center, and others.

South Stock Island, on the other hand, is part of unincorporated Monroe County. South Stock Island is also a "census-designated place" ("CDP") for which the U.S. Census Bureau collects and reports demographic data. The population of the Stock Island CDP was 3,807 in the 2010 U.S. Census, with 1,658 housing units at that time.

In comparison to North Stock Island, residences on South Stock Island have until recently generally been small single family homes, mobile homes, manufactured housing, apartments, condominiums, and marinas. Each boat slip at most or all of the marinas is required to have sewerage service. The commercial or general service facilities on South Stock Island include fishing and other maritime businesses, general commercial and light industrial establishments, including KWRU's wastewater treatment plant, boat repair and other maritime industrial facilities, and similar businesses. Although it may not be clear from the aerial photo in Exhibit KGW-3, many of the single family residences on South Stock Island are very small, which is indicative of the generally lower-income status of most of the population on South Stock Island.

Exhibit KGW-4 to my testimony is information from the 2010 U.S. Census data. The column marked "SSI & Key Haven" shows population information for the entire census tract 9718, which includes both South Stock Island and Key Haven. Key Haven is an upscale community north of South Stock Island (across U.S. 1) and slightly to the east. The four columns on the right show the breakdown between South Stock Island and Key Haven. The chart shows that South Stock Island has a much higher occupancy rate and a much higher percentage of renters than the rest of the Lower Keys. (The Lower Keys are those islands from Key West to Big Pine Key, inclusive; the Keys northeast from Big Pine are referred to as the Middle Keys.)

Attached as Exhibit KGW-5 to my testimony is information about the Stock Island CDP from the 2010-2014 American Community Survey, 5 Year Estimates. The median household income on South Stock Island is \$41,799 and the median housing value is \$236,700. On South Stock Island, 17.2% of the population lives below the poverty level, compared to 12.6% in the City of Key West and 13.9% in Monroe County as a whole. By way of contrast, the median household income in the City of Key West is \$54,306, and the median housing value is \$430,900 (82% higher than the Stock Island CDP).

Q. PLEASE DESCRIBE THE IMPACTS OF HURRICANE IRMA ON STOCK ISLAND.

Stock Island received little damage from the storm beyond increased vegetative debris. County facilities were up and running soon after the storm. The corrections facilities on North Stock Island were evacuated during the storm as a precaution when it appeared the landfall was heading for Key West. The water supply system damages were primarily in the areas north/east of Stock Island due largely to tree roots or home damage resulting in uncontrolled fresh water loss from the system. Sewer systems in the hardest hit areas including the wastewater treatment plant at the point of landfall suffered minimal damage and continued to operate. There was minimal damage to the infrastructure on Stock Island with the exception of power interruptions which were restored very quickly.

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Q. PLEASE DESCRIBE MONROE COUNTY'S FACILITIES ON STOCK ISLAND AND THEIR USAGE OF WASTEWATER TREATMENT SERVICE AND REUSE WATER PROVIDED BY KWRU.

A. To the best of my knowledge, Monroe County is KWRU's largest customer by volume of wastewater treatment service purchased and by revenues. Major County facilities served by KWRU include the Monroe County Sheriff's Office; Monroe County Detention Center (commonly known as the Monroe County Jail) and Juvenile Detention Center; Bayshore Manor (a County-owned and operated

Assisted Living Facility); the Stock Island fire station, and the Society for the Prevention of Cruelty to Animals (SPCA) animal shelter. The Monroe County School District also operates the Gerald Adams Elementary School on North Stock Island.

In addition to wastewater service, Monroe County also purchases substantial amounts of reuse water from KWRU, primarily for use at the Monroe County Jail and Juvenile Detention Center.

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Q. PLEASE DESCRIBE THE NATURE OF THE COUNTY'S CONTRACTUAL RELATIONSHIPS WITH KWRU.

Beginning in 2001, with the 2001 Utility Agreement, the County entered into a series of contracts with KWRU to pay for design and construction of KWRU's wastewater system on South Stock Island. KWRU is and at all times relevant has been the only wastewater utility serving South Stock Island. The County's objective in entering into these agreements was to expedite connection of properties to the central wastewater system, in order to comply with Chapter 99-395, Laws of Florida. Section 6 of that law required all sewage treatment and disposal facilities and all onsite sewage treatment and disposal systems (defined to include cesspits and septic tanks) in Monroe County to cease discharge and comply with applicable FDEP or Florida Department of Health ("FDOH") treatment requirements by June 30, 2010. Ch. 99-395 was

subsequently codified in Section 403.086 of the Florida Statutes. As of 2010, that statute, as amended since 1999, required – and *requires* – all wastewater collection, treatment and disposal facilities in any portion of the County designated as a "hot spot" in the County's Sanitary Master Wastewater Plan dated June 2000 to be completed by **December 31, 2015.** A copy of Exhibit 6-1 from the Sanitary Master Wastewater Plan showing Stock Island to be designated as a "hot spot" is attached to this testimony as Exhibit KGW-6. Thus, the County's objective in entering into the series of contracts with KWRU was to facilitate the completion of the wastewater system and connection of properties within the KWRU's boundaries to its system.

In 2002, the County entered into a Capacity Reservation and Infrastructure Contract with KWRU, dated July 31, 2002 (the "2002 CRI Contract"). In this agreement, the County agreed to pay up to \$4.6 million to KWRU in monthly installments. In return, the County received 1,500 Equivalent Dwelling Units of capacity. The agreement also provided that KWRU would collect capacity reservation fees from the customers who were signing up, at \$2,700 per capacity reservation fee ("CRF," also commonly referred to as Service Availability Charges and Plant Capacity Charges), and would turn the CRFs over to the County to repay the funds.

However, the 2002 CRI Contract also provides that KWRU agreed to convert its system to AWT standards by January 1, 2007 if requested, and if it did so, the

cost of conversion would be paid by allowing KWRU to keep \$600 out of each CRF that it collected. On December 18, 2002, the County passed a resolution officially requesting the utility to convert to AWT. On June 21, 2006, the Board of County Commissioners approved the payment of \$707,000 to KWRU as a lump sum payment, in lieu of requiring KWRU to take \$600 out of each CRF as it was collected. The \$707,000 was the remainder of the \$900,000 (\$600 per each of the 1,500 EDUs) which had, at the time not been collected from the customers by the utility.

In addition to the above, on January 15, 2003, the County entered into an agreement whereby it paid KWRU a further \$134,822 as additional financial support for construction of the South Stock Island sewer system.

Also, in April 2013, KWRU filed a Complaint before the Public Service Commission (Docket No. 130086-SU), in which KWRU requested a declaratory statement regarding whether KWRU was entitled to collect capacity reservation fees from the County for 220.27 ERCs in excess capacity used by the County, as provided in the 2001 agreement, and whether KWRU was entitled to collect construction costs (that had been disallowed by the County's Clerk). I was actively involved in the case. In December 2013, the parties agreed to settle the case. The County paid \$500,000 to KWRU to settle claims filed by KWRU in Public Service Commission Docket No. 130086-SU. In the settlement, the

parties agreed that the payment included payment for 220.27 additional Equivalent Residential Connections.

Including all of the above, our records show that the County has paid a total of \$6.3 million to KWRU in capacity reservation fees and construction costs.

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Q. PLEASE SUMMARIZE YOUR KNOWLEDGE OF KWRU'S SYSTEM ON STOCK ISLAND.

I'm most familiar with the vacuum collection system commissioned in 2002 by the County but have some general knowledge about the layout and components of KWRU's entire system. The KWRU system now includes total treatment capacity of 849,000 gallons per day (0.849 MGD), located on Front Street on South Stock Island, collection systems on both North and South Stock Island, and a water reuse supply system from the wastewater treatment plant to reuse water customers. The collection system on South Stock Island utilizes gravity, vacuum, and force mains. The gravity collection system on South Stock Island is comprised partially of the neighborhood known as Lincoln Gardens plus several other streets on the northwest side of South Stock Island. The vacuum system serves most of the northeast and southeast portions of South Stock Island. Several properties on South Stock Island are served by force mains including properties known as Boyd's Campground, Roy's Trailer Park, Sloan's Landing, and several other properties. A force main system delivers wastewater

from North Stock Island to the treatment plant. The water reuse system provides treated reclaimed water to several users on North Stock Island, including the Monroe County Jail and the golf course.

- Q. HOW MANY EXISTING RESIDENTIAL UNITS ARE THERE ON STOCK ISLAND? TO THE EXTENT POSSIBLE, PLEASE IDENTIFY THE DIFFERENT TYPES OF RESIDENTIAL UNITS ON STOCK ISLAND.
- A. All of the KWRU customers receive their water from Florida Keys Aqueduct Authority (FKAA). FKAA reports 1,857 total accounts on Stock Island as of 9/12/2016. Of these, 1,656 are residential accounts (1,923 units) and 201 are non-residential, which includes commercial and marinas. Monroe County Property Appraiser records show that of the 1,923 residential units, 811 are single family residences, 344 are marinas (including boat slips), 347 are mobile homes, and the remainder (421) are condominiums and multi-family housing.

- Q. HOW MANY OF THESE EXISTING RESIDENTIAL UNITS ARE CURRENTLY

 ACTUALLY CONNECTED TO KWRU'S SYSTEM?
- A. Based on information provided in KWRU's 2016 Annual Report to the Florida

 Public Service Commission, KWRU had 1,694 residential customers and 171

 commercial customers as of December 31, 2016. Therefore, I conclude that

there were approximately 1,694 residential units receiving wastewater
 treatment service from KWRU as of that date.

For perspective, in 2014, KWRU submitted information in a permit challenge case filed in the Division of Administrative Hearings, stating that it had 1,416 residential customers and 216 commercial customers. Therefore, clearly residential customer accounts have grown since December 31, 2014.

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Q. HOW MANY EXISTING COMMERCIAL ESTABLISHMENTS ARE THERE ON STOCK ISLAND?

Florida Keys Aqueduct Authority (FKAA) supplies water to all residential and non-residential consumers on Stock Island. FKAA reports 1,857 total accounts on Stock Island as of September 12, 2016. Of these, 201 are non-residential, which includes commercial and marinas.

Q. HOW MANY OF THESE EXISTING COMMERCIAL UNITS ARE ACTUALLY CONNECTED TO KWRU'S SYSTEM?

Based on information provided in KWRU's 2015 Annual Report to the Florida

Public Service Commission, KWRU had 177 general service customers as of

December 31, 2015. Therefore, I conclude that there were approximately 177

commercial establishments receiving wastewater treatment service from KWRU as of that date.

1	Q.	IS IT CORRECT THAT THERE ARE APPROXIMATELY 80 EDUS (ON 18 PARCELS)
2		WITHIN KWRU'S VACUUM COLLECTION SERVICE AREA THAT ARE NOT
3		ACTUALLY CONNECTED TO KWRU'S SYSTEM?
4	A.	Yes.
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6	Q.	AND IS IT ALSO CORRECT THAT THESE RESIDENTIAL UNITS HAVE BEEN
7		REQUIRED TO BE CONNECTED TO KWRU'S SYSTEM SINCE DECEMBER 31, 2015?
8		IF SO, HOW MUCH ADDITIONAL WASTEWATER SERVICE CAN THESE
9		RESIDENTIAL UNITS BE EXPECTED TO REQUIRE FROM KWRU?
10	A.	Yes, this is correct. Using the Utility's standard value of 250 gallons per day per
11		ERC, this would translate to approximately 7.3 million gallons per year; using the
12		alternate value of 167 GPD per ERC would translate to approximately 4.9 million
13		gallons per year.
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15	Q.	DO YOU HAVE AN OPINION AS TO WHEN IT IS REASONABLY LIKELY THAT THESE
16		CUSTOMERS WILL ACTUALLY BE CONNECTED TO AND RECEIVING SERVICE
17		FROM KWRU'S WASTEWATER SYSTEM?
18	Α.	Yes. Considering that this is a mandate pursuant to State statutes, my opinion is
19		that these customers will be connected as soon as is reasonably practical. These
20		customers require additional collection infrastructure. I expect that the utility

will construct this additional infrastructure in the next six to nine months.

Virtually all (more than 95 percent) of them should be receiving service by the end of June 2018.

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- Q. PLEASE DESCRIBE AND EXPLAIN ANY LEGAL OR REGULATORY REQUIREMENTS

 FOR EXISTING RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL WATER USERS

 THAT ARE NOT PRESENTLY CONNECTED TO KWRU'S SYSTEM TO BE

 CONNECTED. PLEASE BE AS SPECIFIC AS POSSIBLE.
 - For purposes of this discussion, it is important to understand that Stock Island is in the Florida Keys, which is an "Area of Critical State Concern" designated by the Florida Legislature. It is also important to recognize that the requirements to connect to KWRU's system apply not only to new residential customers and businesses, but also to existing customers and businesses. Section 403.086(10)(b), Florida Statutes, which Monroe County is responsible for implementing, requires that the County, as well as all municipalities and special sewage districts in Monroe County "shall complete the wastewater collection, treatment, and disposal facilities within its jurisdiction designated as hot spots in the Monroe County Sanitary Master Wastewater Plan, dated June 2000," and that the "required facilities and connections, and any additional facilities or other adjustments required by rules adopted by the Administration Commission under s. 380.0552, must be completed by December 31, 2015."

In the referenced Monroe County Sanitary Master Wastewater Plan, the "Unsewered K.W. Resort Utility Resort Area" is the highest ranked "hot spot" in the Lower Keys area and the number-3-ranked hot spot for the entire Florida Keys. Exhibit KGW-6 to my testimony is a copy of EXHIBIT 6-1 to that Plan, which is a listing of the hot spots in the Lower Florida Keys, with rankings by order of significance. Stock Island is the most critical area in the Lower Keys.

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Q. WHEN ARE THOSE UNITS THAT ARE NOT PRESENTLY CONNECTED TO KWRU REQUIRED TO BE CONNECTED FOR WASTEWATER TREATMENT SERVICE?

The applicable statutes and regulations require that ALL existing residential and general service establishments had to be connected to KWRU's system as of December 31, 2015, i.e., now more than two years ago. This means that all of the residences and commercial establishments on Stock Island that are not presently connected to KWRU's system must connect as soon as capacity exists to serve them, subject to KWRU completing each physical connection. In practical terms, I believe that all such facilities are required by County ordinance to be connected to KWRU's system within 30 days following completion of KWRU's new treatment plant, if they are provided with a connection point. Monroe County will take all reasonable and practicable steps to ensure compliance with the statutes and its Sanitary Master Wastewater Plan.

- Q. ARE THERE SIMILAR REQUIREMENTS THAT APPLY TO NEW AND EXPANDED

 RESIDENCES AND COMMERCIAL ESTABLISHMENTS IN KWRU'S SERVICE AREA?
- A. Yes. Section 403.086(10)(c), Florida Statutes, requires that "After December 31, 2015, all new or expanded domestic wastewater discharges must comply with the treatment and disposal requirements" of the statute. In practical terms, this means that all new residences and commercial establishments on Stock Island must be connected to KWRU's system in order to obtain a certificate of occupancy.

Q. DOES MONROE COUNTY HAVE ANY PROGRAMS TO ASSIST EXISTING WATER
USERS ON STOCK ISLAND IN GETTING CONNECTED TO KWRU'S SYSTEM? IF SO,
PLEASE DESCRIBE THE COUNTY'S PROGRAMS AND EFFORTS IN THIS REGARD.

Yes. The County "purchased" capacity for 1,500 EDUs via the Capacity Reservation and Infrastructure Contract dated July 31, 2002, between KWRU and the County (the "CRI Contract"). In the CRI Contract, the County agreed to pay KWRU up to \$4.6 million to fund a collection system to provide service to a wide area of South Stock Island. Construction of that collection system left some customers without a connection point. Additionally, in a separate agreement with KWRU, the County agreed to pay KWRU approximately \$900,000 to fund conversion of its treatment plant to AWT.

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ADDITIONAL WASTEWATER TREATMENT REQUIREMENTS

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- Q. PLEASE TELL THE PUBLIC SERVICE COMMISSION AS MUCH AS YOU CAN CONCERNING ANY INCREMENTAL WASTEWATER TREATMENT SERVICE REQUIREMENTS THAT KWRU WILL BE CALLED UPON TO SERVE DURING THE PERIOD JULY 1, 2018 JUNE 30, 2019, THAT ARE OVER AND ABOVE THE AMOUNTS SERVED IN KWRU'S PROPOSED JULY 1, 2016 JUNE 30, 2017 TEST YEAR. PLEASE BE AS SPECIFIC AS POSSIBLE.
 - Based on information available to me, including: (1) my review of records for building permits and development on North Stock Island, through the City of Key West, and South Stock Island, through the County; (2) my review of actual usage data for the Stock Island Marina Village and the Oceanside Investors property; and (3) my personal knowledge of construction and development in the Stock Island area, I believe that the following customers and developments are either taking greater amounts of wastewater treatment service from KWRU than they did in KWRU's test year, or have connected to the KWRU system since June 30, 2017, or are likely to begin taking wastewater treatment service from KWRU in the near future. When I refer to the "near future," I am referring to customers that will be requiring wastewater treatment service from KWRU during the first year that any new PSC-approved rates would be in effect. Again, I am using the period July 1, 2018 through June 30, 2019 for this time period, although it will likely begin in August or September 2018.

North Stock Island

Please refer to my Exhibit KGW-9. On North Stock Island, there are three additional developments or projects that will be on line and receiving wastewater treatment service during the period July 2018-June 2019. These projects include Sunset Marina (aka Stock Island Apartments, LLC), the new facility of the Florida Keys SPCA (new Animal Shelter facility), and an expansion of the Gerald Adams School. These three projects or developments reflect 62 additional residential ERCs and approximately 12 additional general service ERCs and will require approximately 5.08 Million Gallons of additional wastewater treatment service in the July 2018-June 2019 period when new rates will be in effect.

My statements regarding additional gallons of treatment service are based on the following. First, with respect to Sunset Marina, I have personally observed that the construction of Sunset Marina is well along, and I have confirmed with Patrick Wright, the City of Key West's Planning Director, that the Sunset Marina project will be fully on line by June 2018. For reference, Sunset Marina originally received approval from the City of Key West to add 60 units; it now comprises 62 units. According to an appraisal report dated January 2015 commissioned by KWRU, the Sunset Marina project was projected to add approximately 15,000 gallons per day, or approximately 5.65 Million gallons per year to the loads served by KWRU. (A copy of the relevant page from the

appraisal report is filed with my testimony as Exhibit KGW-8.) My estimate is based on 167 gallons per day for the 62 units.

The Florida Keys SPCA facility will come on line in late March or early April 2018; KWRU has collected CIAC from the FKSPCA for 7.28 ERCs, upon which my estimate for that new facility is based. Finally, I have confirmed from the Monroe County School Board's Executive Director for Operations & Planning, Pat Lefere, that the Gerald Adams School expansion will be complete by December 2018. Accordingly, I have used only 6 months of the School's additional usage in my Exhibit KGW-9.

As compared to my testimony from the 2016 KWRU rate case, I have now assumed that the then-anticipated Florida Keys Community College new dorm will not be completed until 2020, and that the Easter Seals/Mosquito Control property for which an additional 104 affordable housing units are planned will not have any flows during the July 2018-June 2019 period. In short, my analysis for North Stock Island is limited solely to the increased flows from the three facilities or projects described above.

South Stock Island

As mentioned above, South Stock Island is part of unincorporated Monroe County. Therefore, all requests for building permits and development approvals go through the Monroe County Building Department and the Monroe County Planning Department. I have reviewed the records provided to me by the

Planning and Building Departments, and based on that review, I offer the following information.

Again, please refer to my Exhibit KGW-9. There are currently two large developments, the Oceanside Investors property and the Stock Island Marina Village, both of which are already operating, that will have significantly greater wastewater treatment requirements when the new rates are in effect than their usage levels in KWRU's test year. The total <u>additional</u> wastewater treatment requirements for these projects are 4.45 Million Gallons per Year for the July 2018-June 2019 period. This value is based on actual usage data for these two developments that is presented in my Exhibit KGW-10. That Exhibit shows actual usage for KWRU's test year as compared to actual usage for the period July 2017 through February 2018, which is the most recent month for which data is available. The test year usage was 3,501,283 gallons, but the total wastewater treatment usage from July 2017-February 2018 was 4,026,500 gallons, which translates to 6,039,750 gallons on an annual basis. The difference is approximately 2.54 Million gallons, as shown in my Exhibit KGW-9.

The second large development on South Stock Island is the Stock Island Marina Village, for which my Exhibit KGW-9 shows an additional 1.91 Million gallons of wastewater treatment for the July 2018-June 2019 period as compared to KWRU's test year. Again, my Exhibit KGW-10 shows the actual water usage for KWRU's test year of 750,366 gallons, versus an actual total of

1,770,696 gallons from July 2017 through February 2018. This actual total equates to 2,656,044 gallons on an annual basis, which in turn yields the additional 1.91 Million gallons for Stock Island Marina Village shown on my Exhibit KGW-9.

The other incremental increases shown on Exhibit KGW-9 are Bernstein Park at 0.66 Million additional gallons, and four new residential units at 0.37 Million gallons for the July 2018-June 2019 period. The Bernstein Park value is based on information from other County personnel that the Park will be on line by June 2018, and the additional residential usage value is an assumption that four (4) out of twenty (20) existing "active" permits will come on line in the period. For these residential units, I assumed the value of 167 gallons per day per ERC, which is the value consistently used by the County as opposed to larger values, such as 200 gallons per day or 250 gallons per day, used in other contexts. A copy of the Monroe County Code section 20-102 is attached to this testimony as Exhibit KGW-7.

As compared to my 2016 testimony, I now project that the Bernstein Trust property will not have any wastewater treatment requirements before July 2019, and also that other residential service has come on line during 2017, and for which I have attributed no additional wastewater treatment requirements for the analysis shown in Exhibit KGW-9. Finally, there are at least 40 acres of

- vacant or underdeveloped property. However, I have not included these in the calculation. Accordingly, I believe that my estimates are conservative.
- Q. PLEASE PROVIDE ANY INFORMATION AVAILABLE TO YOU REGARDING

 EXISTING COMMERCIAL AND INDUSTRIAL CUSTOMERS THAT ARE REQUIRED

 TO CONNECT TO KWRU'S SYSTEM, INCLUDING ANY INFORMATION YOU HAVE

 REGARDING THE TIMING OF THOSE CONNECTIONS.
- A. Existing commercial and industrial service customers, who are designated

 "General Service" customers under KWRU's tariffs, are subject to the same

 statutory and regulatory mandate as residential customers; that is, they were

 also required to be connected to KWRU's system by the end of 2015. Those that

 have not yet connected are subject to being required to connect limited only by

 the utility's ability to complete the physical connections.

- Q. PLEASE TELL THE PUBLIC SERVICE COMMISSION AS MUCH AS YOU CAN CONCERNING ANY OTHER POTENTIAL NEW COMMERCIAL OR INDUSTRIAL ESTABLISHMENTS THAT HAVE CONNECTED TO KWRU'S SYSTEM AFTER JUNE 30, 2017, OR THAT ARE LIKELY TO CONNECT TO KWRU'S SYSTEM BEFORE JUNE 30, 2019. PLEASE BE AS SPECIFIC AS POSSIBLE.
- A. In the last months, the City of Key West's new transportation maintenance facility opened on North Stock Island. I assume it is connected to KWRU. The

only other new commercial facilities of which I am aware are those referenced above. These include, on North Stock Island, the school expansion, the addition of a new Animal Control facility, and expansion of Sunset Marina. On South Stock Island, there are the hotel, commercial space, and restaurant components of the Longstock, Oceanside Marina, and the Bernstein Trust developments, and the County's Bernstein Park. There have also been other recent real estate transactions on the waterfront on the east side of south Stock Island including properties which may be developed further including the properties formerly know known as Gulf Seafood and Water's Edge that have recently been purchased by entities known as Wreckers Cay Apartments at Stock Island, LLC and Lejeune Airport Park Suites, Inc., respectively.

- Q. WHAT IS THE GENERAL OUTLOOK FOR ECONOMIC GROWTH AND ADDITIONAL DEVELOPMENT ON STOCK ISLAND, AND WHAT, IF ANYTHING, DOES THIS IMPLY FOR GROWTH IN THE AMOUNT OF WASTEWATER TREATMENT SERVICE THAT KWRU CAN REASONABLY BE EXPECTED TO PROVIDE?
- A. This is difficult to predict but the recent trend has been for additional development of high-end transient or condominium development. As noted above there have been some recent large real estate transfers, the intent of which is not yet apparent.

Q. ARE YOU AWARE OF ANY SIGNIFICANT EVENTS OR EXPECTED EVENTS, E.G.,
BUSINESS CLOSINGS OR DEMOLITIONS OF SIGNIFICANT NUMBERS OF
RESIDENTIAL UNITS, THAT WOULD BE EXPECTED TO REDUCE THE DEMAND FOR
WASTEWATER TREATMENT SERVICE PROVIDED BY KWRU IN 2018 OR 2019?

A. No, I am not aware of any such demand-dampening events either having occurred or expected to occur over this time period. Recent trends suggest the opposite with increased development, especially on South Stock Island.

A.

RECOMMENDATIONS

Q. WHAT DO YOU BELIEVE THAT THE FLORIDA PSC SHOULD DO WITH THE INFORMATION THAT YOU HAVE PROVIDED IN YOUR TESTIMONY?

The Commission should use this information to ensure that KWRU charges fair rates to the County and to its other customers on Stock Island. This should be accomplished by using the additional wastewater treatment gallons that I have identified to calculate the amount of any allowed rate increase and to calculate any new rates for KWRU in this case. If the Commission allows KWRU to include additional costs that it claims to have incurred after July 2017 in its rates, then it is only fair to include additional sales units in setting the rates to recover those costs. Otherwise, KWRU will get an unfair windfall through whatever new rates the PSC would approve.

1 CONCLUSIONS 2 Q. PLEASE SUMMARIZE THE MAIN CONCLUSIONS OF YOUR TESTIMONY. Based on the best available information, including actual usage data for two 3 A. 4 confirmed large developments on South Stock Island, based on my personal 5 knowledge, and based on reliable information obtained from the City of Key West and Monroe County's Planning and Building Departments, I believe that 6 7 KWRU will provide approximately 10.55 Million gallons of additional wastewater 8 treatment service during the first twelve months that any new rates approved by 9 the Commission in this proceeding will be in effect. As explained above, I believe 10 that this estimate is conservative. 11 The PSC should use these additional gallons of service provided - and 12 charged for – by KWRU in setting any new rates for KWRU in this case. Doing so will help to ensure that the County and KWRU's other customers pay only fair 13 rates based on costs incurred to serve and the units of wastewater treatment 14 15 service provided.

16

17

18

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

KEVIN G. WILSON

I. PROFESSIONAL QUALIFICATIONS

- -Registered Professional Engineer (P.E.) (Chemical Engineering) (OH, FL)
- -Retired Army Reserve Officer (LTC; O-5) (Engineer & Chemical Officer; U.S. Army Command & General Staff Officer Course Instructor 3 years FT Shafter, HI)

II. EMPLOYMENT HISTORY

Monroe County Engineering/ Project Management/Public Works

(July 2006 - date)

(Assistant County Administrator, Public Works & Engineering since 2015)

- -Senior engineering manager of the County (County Engineer)
- -Management of County Public Works, Engineering, Solid Waste, & Fleet Operations
- -Overall management of all County capital construction (buildings, sewer, roads, bridges)
- -Primary County liaison with FKAA on sewer utility construction projects (\$200 million since 2012)

Kevin G. Wilson, P.E.; Key Largo, FL 33037, U.S.A.

(January 2006 - July 2006)

Position: semi-retired

Department of the Army; Oakton, VA, U.S.A.

(October 2003 - December 2005)

- -Contract employee managing a medium size group of staff and contract employees.
- -Established new mechanisms to identify locally hired contract employees in the Middle East.
- -Completed a review and improvement of the information security practices of the office.
- -Developed partnering relationships with other USG agencies working on projects in the Middle East

Paul C. Rizzo Associates, GmbH; Vienna, Austria

(August 2000 - September 2003)

- -Managed budget and work of three subordinate offices with 35 professional employees in four countries (Austria, Czech Republic, Romania, Russia)
- -Developed and executed engineering projects in the Middle East (Egypt, Iraq), former Soviet countries (Russia, Ukraine, Georgia), and eastern European countries (Czech Republic, Hungary, Romania)
- -Successfully assimilated ARD Environmental, GmbH operations into PCR Associates, GmbH.

ARD Environmental, GmbH; Vienna, Austria

(March 1994 - August 2000)

- -Set up and ran all aspects of an Austrian company to support employer's objectives in western Europe, eastern Europe, and former Soviet republics (Russia, Ukraine, Georgia).
- -Implemented projects with nuclear industry facilities in the CIS countries (former Soviet Union) by establishing partnerships with local firms.

Meridian Diagnostics, Inc.; Seoul, South Korea

(June 1989 - March 1994)

- -Set up and ran the Company's first and only Asian office.
- -Negotiated a joint venture in the People's Republic of China.
- -Performed or supervised all aspects of corporate operations (budget, personnel, marketing) in Asian markets.

Kevin G. Wilson page 2.

Dalton & Associates; Miami, FL, U.S.A.

(January 1987 - June 1989)

-Developed plans for international expansion of a diagnostic products manufacturer.

Procter & Gamble Company; Cincinnati, OH, U.S.A.

(May 1970 - January 1987)

- -Developed a patented marketing technique that increased sales volume of Tide by five percent.
- -Developed and implemented corporate-wide Total Quality Improvement training program.
- -Negotiated environmental permits for four factories with federal environmental authorities.
- -Developed NPDES permit system guidelines for the U.S. EPA and Congressional staff.
- -Supervised various internal professional consultants.

Other Pertinent Experience

Non-compensated

- -Current President of the Port Largo Residential Property Owners' Association (Key Largo, FL).
- -Member; Friends of Key Largo Cultural Center
- -Treasurer, Finance Committee chairman, Audit Committee chairman, and Board member of the American International School Vienna.
- -Committee Chair American Chamber of Commerce in Seoul

Personal

Born: New York, NY

Education: Carnegie-Mellon University; Pittsburgh, PA; B.S.ChE.

4 Children, 5 grandchildren

Exhibit KGW-2

List of Prior Testimony

1	Venture Out v. Florida Keys Aqueduct Authority and Monroe County,
	16th Judicial Circuit Case No. 2013-CA-204-K.

- 2 Laudicina et al. v. Florida Keys Aqueduct Authority et al., State of Florida Div. of Administrative Hearings, DOAH Case No. 15-1233.
- 3 Monroe County v. State of Florida et al. (bond validation case), 16th Judicial Circuit Case No. 12-CA-521-K.
- In Re: Petition of KW Resort Utilities Corporation for Declaratory Statement Regarding Capacity Reservation Charges and Unpaid Invoices, Fla. Public Service Commission, Docket No. 130086-SU.
- In Re: Application for Increase in Wastewater Rates in Monroe County by K W Resort Utilities Corp., Fla. Public Service Commission, Docket No. 150071-SU.



Exhibit KGW-4

2010 Census Data Comparison of Stock Island with Other Lower Keys Islands

		100	20:	10 Census data	ı		· · · · · · · · · · · · · · · · · · ·				
							8		Breakdov	vn of 9718	
	N. BPK & NNK	Southern	Summer -	BC & Geiger	USL -	Cudjoe	SSI & Key Haven	SSI	SSI above	SSI	Key
	& Ohio Keys	BPK	Torches		Saddlebunch	1000		below	5th	Maloney	Haven
								5th			
FL - Monroe County - Census Tract	9714.02	9714.01	9715.02	9717	9716	9715.01	9718	9718 G2	9718 G4	9718 G3	9718 G1
Total Housing	986	2,079	2,112	1,558	1,162	1,670	2,106	662			
Occupied Housing	643	1,361	1,251	1,193	842	839		601	468	331	
Owner-Occupied	459	937	875	739	632	629		268		-	
- Population	913	1,979	1,765	1,757	1,416			740			-
Renter-Occupied	184	424	376		210	210		333			-
- Population	420	925	839	1,031	530	467	2,612	1,026			
Housing with Minors	99	254	201	297	188	124	615	240	_		
Vacant Housing	343	718	861	365	320	831		61			
- For Rent	41	87	94	44	52			22			
- For Sale	24	57	63	29	27	32		6		2	
Occasional Use Housing	8	8	8	4	4	4	7	1	3	1	
							-				-
					Hous	ing Percen	tages				
Occupied Housing	65%	65%	59%	77%	72%	50%		91%	80%	81%	87%
Owner-Occupied	47%	45%	41%	47%	54%	38%		40%		31%	
Renter-Occupied	19%	20%	18%	29%	18%	13%		50%	-	50%	
Vacant Housing	35%	35%	41%	23%	28%	50%		9%	_	19%	
- For Rent	4%	4%	4%	3%	4%	2%		3%		8%	
- For Sale	2%	3%	3%	2%	2%	2%		1%		0%	

Stock Island CDP, Florida Median Household Income \$ 41,799 Source: 2010-2014 American Community Survey 5-Year Individuals below poverty level 17.2 % Source: 2010-2014 American Community Survey 5-Year Educational Attainment: Percent high school graduate or higher 72.9 % Source: 2010-2014 American Community Survey 5-Year Health Insurance Coverage: Percent uninsured 50.0 % Source: 2010-2014 American Community Survey 5-Year **Profiles** Median Housing Value \$ 236,700 Source: 2010-2014 American Community Survey 5-Year Estimates **Total Housing Units** 1,717 Source: 2010-2014 American Community Survey 5-Year

Estimates

Monroe County, Florida 2014 Population Estimate 77.136 Source: Vintage 2014 Population Estimates: County Total Population and Components of Change Median Household Income \$ 55,449 Source: 2010-2014 American Community Survey 5-Year Estimates Individuals below poverty level 13.9 % Source: 2010-2014 American Community Survey 5-Year Educational Attainment: Percent high school graduate or higher 90.4 % Source: 2010-2014 American Community Survey 5-Year Health Insurance Coverage: Percent uninsured 25.3 % Source: 2010-2014 American Community Survey 5-Year **Profiles** Median Housing Value \$ 379,700 Source: 2010-2014 American Community Survey 5-Year **Estimates Total Housing Units** 52.861 Source: 2010-2014 American Community Survey 5-Year Estimates

2014 Population Estimate 25.704	
Source: Vintage 2014 Population Estimates: S. Population Places and MCDs	ubcounty
Median Household Income \$ 54,306	
Source: 2010-2014 American Community Survi Estimates	ey 5-Year
Individuals below poverty level 12.6 %	***************************************
Source: 2010-2014 American Community Surve Profiles	ey 5-Year
Educational Attainment: Percent high school g higher 90.7 %	raduate or
Source: 2010-2014 American Community Surve Profiles	ey 5-Year
Health Insurance Coverage: Percent uninsure	d
Source: 2010-2014 American Community Surve Profiles	ey 5-Year
Median Housing Value \$ 430,900	
Source: 2010-2014 American Community Surve Estimates	ey 5-Year
Total Housing Units 14,213	

Source: 2010-2014 American Community Survey 5-Year

Estimates

Census information on Stock Island CDP: <a href="http://www.census.gov/search-results.html?q=Stock+Island+CDP%2C+FL&page=1&stateGeo=none&searchtype=web&cssp=Typeahead&g=Monroe+County%2C+FLCensus information on Monroe County, Fl: <a href="http://www.census.gov/search-results.html?page=1&stateGeo=none&searchtype=web&cssp=Typeahead&g=Monroe+County%2C+FLCensus information Key West, FL: http://www.census.gov/search-results.html?page=1&stateGeo=none&searchtype=web&cssp=SERP&g=key+west%2C+fl&search.x=0&search.y=0

Docket No. 20170141-SU
Monroe County Sanitary Master Wastewater Plan
"Hot Spot" Excerpt, Exh. 6-1
Exhibit KGW-6, Page 1 of 1

EXHIBIT 6-1

Hot Spot Areas and Rankings - Lower Keys

Study Area

No.		Wasetwater Service Area	Hot Spot Area Name	Area Rank by Region	Rank for Entire Keys
	Stock Island	KW Resort Utility	Unsewered K.W. Resort Utility Resort Area	1	3
2	Boca Chica	Big Coppitt	Coppitt/Johnsonville/Gulfview Porpoise Point/Gulfrest Park and adjacent area along U.S. 1	2	5
3	Bay Point	Bay Point	Bay Point Subdivision and Saddlebunch Shores	3	6
11	Big Pine	Big Pine Regional	Whispering Pines (S)/ Sands/Grieser/ Ross Haven/Pat&Mary/Big Pine Cove, and adjacent area along U.S. 1	4	8
11	Big Pine	Big Pine Regional	Doctor's Arm/Lambert/Tropical Bay, Palma Villa, Whispering Pines (N)	5	11
10	Little Torch	Big Pine Regional	Coral Shores, Windward Beach Estates, Mate's Beach, Jolly Roger	6	16
7	Summerland	Summerland/ Cudgoe/Upper Sugarloaf Regional	Estates, and area east of Mate's Beach south to Jolly Roger Estates Summerland Key Cove/Summerland Cove Isle	7	23
11	Big Pine	Big Pine Regional	Eden Pines Colony	8	25
11	Big Pine	Big Pine Regional	Big Pine Key, Inc., Tropical Key Colony, Pine Channel Estates, Cahill Pines & Palms, and adjacent area along U.S. 1	9	26
6	Cudjoe	Summerland/Cudjoe/Upper Sugarload Regional	Cutthroat Harbor Estates, Cudjoe Ocean Shores	10	28
5	Upper Sugarloaf	Summerland/Cudjoe/Upper Sugarload Regional	Indian Mound Estates, Gulf Shores, Vacation Harbour	11	31
6	Cudjoe	Summerland/Cudjoe/Upper Sugarload Regional	Cudjoe Gardens	12	36
9	Ramrod	Big Pine Regional	Breezeswept Beach Estates, Ramrod Shores, and area along U.S. 1	13	39
2	Boca Chica	Big Coppitt	Rockland Key	14	41
11	Big Pine	Big Pine Regional	Port Pine Heights	15	42
2	Boca Chica	Big Coppitt	Boca Chica Ocean Shores, Tamarac Park	16	43
4	Lower Sugarloaf	Lower Sugar Loaf	Sugarloaf Shores, Orchid Park, adjacent area along U.S. 1	17	44





Sec. 20-102. - Definitions and general rules.

(a) *Definitions*. The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Compatible system means a vacuum system (or other collection system provided by the utility within the public right-of-way), or a sewage force main, if the utility has a force main with adequate capacity. Note larger concentrated flows may require connection to a utility-provided force main within the public right-of-way.

Connection means the point where an individual or multiple EDUs are connected to the utility's central collection system and may be by gravity, pressure, or vacuum.

Equivalent dwelling unit (EDU), for purposes of this division, one EDU is assumed to generate a sewage flow of 167 gallons per day, and a recreational vehicle (RV) unit is assumed to generate a sewage flow of 75 gallons per day. One EDU is equivalent to one equivalent residential connection (ERC) as defined by some utilities.

Infiltration and inflow (I&I) means the introduction of stormwater run-off, groundwater or other sources of uncontaminated water into a sanitary sewer system. The introduction of I&I is prohibited by F.A.C. ch. 62. All sewer collection systems shall be demonstrated to be free of I&I using one of the test methods cited under the definition of industry and utility standard or by an alternative test method approved by the utility's engineer.

(b) Other provisions.

(1) Hydrostatic head.

- At least six feet above maximum estimated groundwater level in section being tested.
- b. No less than six feet above inside top of highest section of pipe in test section.
- c. Pumping stations shall be designed with a standard receptacle for connecting portable power generating equipment.
- d. Multiple pumps shall be provided with capacity such that, with any unit out of service, the remaining units will have capacity to handle the peak hourly flow.
- e. Force main leakage tests shall be performed in a manner acceptable to the utility's engineers.

(2) Hydrostatic test.

- a. *Pipelines*. All private gravity sewers shall be tested for leakage prior to connection to the utility.
- Testing periods. All testing for acceptance shall be performed at periods of lowest tide. Testing shall be performed only during the six-hour period of

Docket No. 20170141-SU

Monroe County Code, Section 20-102

Exhibit KGW-7, Page 2 of 2

the lowest tide period of each day (once per day). The utility shall determine this six-hour period each day.

- c. Testing equipment accuracy. Accuracy for testing equipment shall be plus or minus one-half gallon of water leakage under specified conditions.
- d. *Maximum allowable leakage*. The maximum allowable leakage shall be 0.16 gallon per hour per inch diameter per 100 feet.
- (3) Ownership of system constructed by private property owner. Where reasonable permanent and temporary easements are granted by the private property owner, the utility may take over the facilities within the permanent easement for ownership and for operation and maintenance. Facilities outside the permanent easement shall remain the responsibility of the private property owner.

(Code 1979, § 15.5-36; Ord. No. 028-2003, § 1)

KWRU Stock Island WWTP Monroe County, Florida

Public Utility Appraisal Report

Emestive Date: December 31, 2014

Rapid t Date . Junuary 2015

Po:

KW Resort Utilities Corporation

Primared D

Hartman Consultants, LLC

With the Supplement i Rold Property By

Appraisal Company of Key West, Inc.

Project Number 14076.00

SECTION 2 DESCRIPTION OF FACILITIES

2.01 KWRU Expansion Program

The Owners of KWRU realized that the entire Key of Stock Island needed central sewage service. In March of 2002 WEC developed a three (3) phased program, design and permitting for KWRU to expand from 250,000 gpd and approximately 1,000 connections (approximately 2,000 ERC's) to 499,999 gpd AADF and a nominal 2,500 connections (approximately 5,000 ERC's). Monroe County reserved some 1,500 ERC's for collection system service for approximately \$4,600,000 on July 31, 2002. That reservation did not include the costs of AWT treatment and reuse (See Appendix G). That program has been completed. For the calendar year of 2014 the existing flows are at or exceeding 90% of AWT WWTP capacity.

KWRU has very little inflow and/or infiltration. BRIAN, Inc. rehab inspection and analysis is hired to video inspect the collection system and make repairs as they may be found.

WEC and BRIAN, Inc. both independently have found the collection system to be in good to new condition and having minimal inflow and/or infiltration (Appendix I).

Mr. Devon Villareal provided the FDEP Wastewater compliance inspection report with the inspection January 30, 2013 and report February 14, 2013. The findings were that KWRU was in compliance with all permits (Appendix I).

The existing FDEP WWTP operating permit expires on February 19, 2017.

As of December 31, 2013 pursuant to the FPSC annual report some 4,183.65 ERC's were connected to the system. As of December 31, 2014 approximately 4,615 ERC's were customers of the system. The current December 31, 2014 treatment plant capacity of the system is 5,179 ERC's.

In Appendix H, the reader can find the advertisement, the intent to issue by . FDEP and the capacity page of the Draft Permit. The AWT WWTP is expected to be expanded to 849,999 gpd AADF. Within Stock Island, KWRU's FPSC service area, the build-out capacity in ERC's is 8,882 ERC's.

The transmission systems and effluent reuse/disposal systems are in place to serve the build-out condition. It is expected that the majority of the redevelopment and growth and existing development connections will occur in the 2015-2024 time period, increasing the connected ERC's to approximately 7,500 ERC's. Thereafter, future re-development, under-utilized acreage or other customers are expected to connect over time.

Some of the near term growth is:

- 1. Stock Island Marina Village Estimated 30,250 gpd or 313 ERC's.
- 2. Oceanside Marina Estimated 26,125 gpd or 271 ERC's.
- 3. Sunset Marina 15,000 gpd or some 155 ERC's.
- 4. Bernstein Development 30,000 gpd or some 310 ERC's.
- Approximately 40 acres of scarified or under-utilized land unknown flow and ERC's.
- 6. Unconnected Residential Units Future
- 7. Unconnected Developed Non-Residential Future

2.02 Collection Systems and Reuse Systems

The following is from the December 18, 2014 WEC report which can be found in its entirety as Appendix E.

Lincoln Gardens Gravity Collection System

The Lincoln Gardens area of South Stock Island consists of a residential area served by a gravity collection system. The gravity mains and manholes are located in the public right of way or in permanent easement granted to the Utility.

The gravity piping is generally vitrified clay. Much of the pipe has been sliplined with plastic liners, including the gravity laterals. The piping is in good condition. Salinity records show that there is very little saltwater infiltration. Flow records demonstrate that the wet weather inflow and infiltration is limited.

There are three Utility-owned lift stations (discharge into gravity piping) and Utility-owned force main pump stations in the system. The Sunset Trailer Park area discharges into the Lincoln Gardens gravity collection system, using a number of small grinder lift stations.

Projected Future 2018-2019 Sewer Demands (KWRU) South Stock Island (million gallons/year) Project Actual Total Projected in Additional Projected in JULY 2016-JUN 2017 July 2018 - June 2019 July 2018 - June 2019 Oceanside Investors (hotel) (note 1) 3.50 6.04 2.54 0.00 Bernstein Trust 0.00 0.00 Stock Island Marina Village hotel (note 1) 0.75 2.66 1.91 Bernstein park 0.00 0.66 0.66 New residential 2017 (note 2) 0.55 0.55 0.00 new residential 2018 (note 3) 0.37 0.37 Potential Future Isaacson property #N/A #N/A Murray Marine #N/A #N/A Gulf seafood #N/A #N/A **North Stock Island** (million gallons/year) Project Actual Projected in Projected in JULY 2016-JUN 2017 July 2018 - June 2019 July 2018 - June 2019 Sunset Marina 0.00 3.78 3.78 Easter Seals / Mosquito Control 0.00 0.00 0.00 FKCC Dorm (expected in 2020) 0.00 0.00 0.00 Gerald Adams school 0.00 0.64 0.64 FKSPCA (add'l only) 0.00 0.66 0.66 Potential Future Subtotals Residential 4.14 Commercial 6.40 **Grand Total** 10.55 Notes Note 1 - - Actual for July 2016-June 2017 is based upon FKAA water records for that period. Projected for July 2018 - June 2019 is based upon actual FKAA records for July 2017 - February 2018 and then annualized Note 2 - - New residential for 2017 is based upon new residential Certificates of Occupancy issued and assumption that these residences remain in service for future years

Note 3 - - New residences projected is based on assumption that 4 of the 20 open permits will be completed

in the projected year (July 2018 - June 2019).

ACTUAL USAGE DATA FOR STOCK ISLAND MARINA VILLAGE AND OCEANSIDE PROPERTIES, 2016-2018

								3	Stock Island Marina Villans	aring Village h	to hotel														
umcocationiD	umLocationiD ServiceAddress	Service	2/1/2016	2/1/2016 3/1/2016 4/1/2016 z		Park CA	1 2016 611 2016 311 2016 1811 2016 1810 EN	45 8/4 /201	Stole more				-			The second second									
8766	8766 7001 SHRIMP RD STOCK ISLAND FL 33040	W NONREC	Becam	RECEDI ABSTON SANSON		Table of	2/1/2	107/1/6 01/	3/1/2016	- 16	10/1/2016 1102/1/2 1102/1/1 9102/1/21 9102/1/11 9102/1/01	12/1/2016	/1/2017 2	1,2017 3/		4/1/2017 5/1/2017 5/1/2017 5/1/2017 5/1/2017 9/1/2017 10/1/2017 11/2017 12/1/2017 12/1/2017	17 6/1/20	17 7/1/201	7 8/1/2017	1/102/1/6	10/1/2017 1	1/1/2017 13		1/1/2018 2/	B 100
			2000	m/cc.	1	33/300	310200 233200		0	MA	NA NA	Z Z	A NA		363717 6	68267 300952	52 164230	70 22431	224310 193107	204647	28650K	107025		183060	į
					-	1		Monthly	Monthly Average for test year	test year "	150,073	-	-	-	ł	L		Monthly	Monthly Assesses 7/17,3/18-	- 91/52	200 200		1	20000	
								Total for	Total for test year =		750,366		†	+	-	-	1	Total for	Total for 7/47 1/48 -	+	-		1		T
														The Personal Property lies			1	1000	1/4/-2/40=	1		or annualized =		2,656,044	7
									Orenneid	Orenneide Bennestlas															
umfocationiD	ServiceAddress		2/3/2016	2/3/2016 3/1/2016 4/1/2018	ľ	Dane Lett	Charles of the land of the land of the	ac att Day		21.			-					-							
49343	49343 5960 PENINSULAR AVE LOCATION BOAT KEY WEST FL 33040	W MONBEC	116.00	over.	il.		7777	107/1/01	3/17/070	-t	10/1/2016 11/1/2016 12/1/2016 11/2/2017 2/1/2011 3/1/2011	12/1/2016	/2/2017 2	1,72017 3/	1/2017 4/1/	4/1/2017 5/1/2017		17 7/1/201	(102/1/8 (102/1/8 (102/1// (102/1/9	\$ 1,72017	10/1/2017 1	7102/1/21 7102/1/11		1/1/2018 2/	8100
49394	49394 5960 PENNINSULAR AVE LOCATION DOCKS KEY WEST FL 330AD	WANDWEE	Sep.	ľ	74000	3 5	1	-	9	°	0	2	0	0	0	0	0	0	1097	0	0	1483		2690	1770
49408	49408 5960 PENINSULAR AVE UNIT 101 KEY WEST FL 33040	War.	200	I	24900	3		٤	٤	¥	≨	z	Y X			¥	MA	¥	NA	NA	N N	Y Y	MA	MA	T
49409	49409 5960 PENINSULAR AVE LINIT 201 KFY WISCT EL 32040	W Dec	3 8	3/1	300	480					٦	4871	2994	4396			5270 4918	18 6110	6201	3100	1800	1998	6578	48-98	3333
49410	49410 5960 PENINSULAR AVE LINE 100 KEY WEST EL 3300	W NES	anna a		3400	8	1		88			1699	2743	2438		2856 27	2778 10064	ŀ	ı	005	2002	766	1600	1516	
49411	49411 5960 PENINSLILAR AVE LINIT 202 KEY WEST EL 33040	W RES		3500	1900	8	200	400 800		200		4957	2134	954	303	0		L	١	0	8	=	67	0	ľ
49412	49412 S960 PENINSLILAR AVE LINIT 103 KEY WIET EL 33040	W RES	mea?	1	4500	8		2800 4000	3300		1700	75	1172	2575		4593 49	4928 5196	5833	4860	3300	100	1231	777	2843	25
49613	49613 COCO PENINCIA DO AVE LINET DOS VEY MEST EL DOCO	W NCS	7400	1	4000	4000	0		0	0	0	12	2285	4097	5347	4215	775	0	C C		6	c	-		
10414	AGATA COCO DEMINETA AND THE TANK TO A SECURE OF THE SOURCE	W KES	8100		2900							2374	837	287	96	-	-	-		Sec.	2		1	100	00
40415	AGAIN COCO DEMINETE AN ANTINET SOLUTION FOR THE STORY	W RES	248	009	0	100				100		3781	2274	1316	233	348	815	A76	3	1	9	1	2,55	700	
2404	ADMINISTRACTOR OF STATE OF THE ADMINISTRACTOR OF THE STATE OF THE STAT	W RES	2600		2000							989	3576	1797	L		3	ľ	L	2	2005	2000	60	ner!	6333
1	2300 FEMILISOLAR AVE UNIT JUST RET WEST FL 33040	W RES	9		009	1800						3287	1404	2005		L	l	1	L	1		2010	D/OT		
49417	4941/19960 PENINSULAR AVE UNIT 205 KEY WEST FL 33040	W RES	1500	1200	100						904	100	=	157	15	L		300		NIT OF	77/7	8 3	2	\$25	199
49418	49418 5960 PENINSULAR AVE UNIT 106 KEY WEST FL 33040	W RES	1200		1500	200				300	1500	82.63	432		120		1	1		3	1	103	77	2	7
49419	49419 5960 PENINSULAR AVE UNIT 206 KEY WEST FL 33040	W RES	6200		4200	L		3900	2300		Ten.	2000	31.00	3		1	203 1872	1	1392	2500	38	4954	1439	4116	1203
49420	49420 5960 PENINSULAR AVE UNIT 107 KEY WEST FL 33040	W RES	1600	400	300	L	l	L	l	150	2000	1	2000	275	1	2018	1		1	2200	1400	3278	5166	4051	8904
49421	49421 5960 PENINSULAR AVE UNIT 207 KEY WEST FL 33040	W RES	9100		3800	3100	ı	L	1		-	1	100	200	3 7	1	7	33	٥	00/	1500	6	7	~	9
49422	49422 S960 PENINSULAR AVE UNIT 108 KEY WEST FL 33040	W RES	2300		3600	L	١	L	١	١	1	35		8	1	1	1			1700	٥	77	86	9	02
49423	49423 5960 PENINSULAR AVE UNIT 208 KEY WEST FL 33040	WRES	3600	006	18	L	1	1 2	3	300	361	133	200	7865	1		13 2649			1500	200	1949	2179	3337	4395
49424	49424 5960 PENINSULAR AVE UNIT 109 KEY WEST FL 33040	W RES	1000	1000	202	5	ı	١	1		DI.	676	1038	1361		1157	686 28	1959	1207	0	200	0	259	366	1905
49425	49425 S960 PENINSULAR AVE UNIT 209 KEY WEST FL 33040	WRES	11800	PERON	200	L	ı	ı	1		3	5022	707	1766						1400	1600	47	26	0	80
49426	49426 5960 PENINSULAR AVE UNIT 110 KEY WEST FL 33040	W RES	6700	3700	7400	L	1300	1400	3 5	2000	2007	BCT .	200	28082	5			3042		1500	1200	3068	1696	4221	3553
49427	49427 S960 PENINSULAR AVE UNIT 210 KEY WEST FL 33040	W RES	3700	2000	1700	L	I	ı	L		3	7462	7103	798		1				8	1000	1263	128	284	3690
49428	49428 5960 PENINSULAR AVE UNIT 111 KEY WEST FL 33040	WRES	0056		2000	L		ľ	2000	2000	ST.	-	-	9		1				٥	0	1077	789	2584	2244
49429	49429 5960 PENINSULAR AVE UNIT 211 KEY WEST FL 33040	WRES	4100	SE.		L		L	1		3/4	3017	6948	250		4032 2136	36 5712			0009	4400	1074	2980	3315	5527
49430	49430 5960 PENINSULAR AVE COMMON AREA KEY WEST EI 33040	AN MONBER	10101	ľ	2000	1	1	Total Date	1		8	99	109		-		-			0	0	148	0	1609	176
205139	205239 5950 PENINSULAR AVERESIDENCES KEY WEST 61.330AN	Τ	***		3	ľ	ı				45700	-1	18851			_				8700	13486	16370	17811	15880	18299
205332	205332 S950 PENINSULAR AVE (DOCKS) KEY WISST EL 33040	T	I	VN	T	1		8	27200	119400	97000	260430	256746	۳	"	500089 480139	39 620481	11 548794	509284	303835	425369	388720	5 265809	542301	700105
205332	205332 S950 PENINCITIAR AUF IDOCKS KOV WEST STOAD	2	T	1	Y	≶]	21	ᆲ	¥	2	MA		294127	34742	33939 45	45104 38570	70 39830	30529	26131	36348	00999	19651			56519
	Charles and the County has the state of the county	W RES	T	¥	88	82300	91200 133700		234800 4054200	00609	27900	0 0	2	W	NA.	WA	¥	MA	MA	NA N	NA NA	NA NA	NA	ž	Γ
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			1	+	+	+		Total for	otal for test year ::	The state of the s	3,501,283		H	-	H		L	Total for	Total for 7/17-2/18 to	t	+-	or annualized a	T	6 039 750	Τ
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Docket No. 20170141-SU Actual Usage Data for Stock Island Marina and Oceanside Properties, 2016-2018 Exhibit KGW-10, Page 1 of 1

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase)			
In wastewater rates in Monroe)	DOCKET	NO. 201701	41-SU
County by K W Resort Utilities)			
Corp.)	FILED:	March 14,	2018
)			

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was furnished to the following, by electronic delivery, on this $\underline{14^{th}}$ day of March, 2018.

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