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PUBLIC UTILITIES COMMISSION

October 31, 2023

Mrs. Luly Massaro  
Commission Clerk  
Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, Rhode Island 02888

Re: Infrastructure Program

Dear Mrs. Massaro:

In accordance with Kent County Water Authority rate order Docket #5012, we are required to file an Infrastructure Report semi-annually. The attached reports on Infrastructure are through June 30, 2023.

If you have any questions or members of your staff would like further information, please feel free to call at any time.

Very truly yours,  
Kent County Water Authority

A handwritten signature in blue ink, appearing to read "D.L. Simmons", is written over the typed name of David L. Simmons.

David L. Simmons, P.E.  
Executive Director/Chief Engineer

cc: Board Members

**Kent County Water Authority**

**Report on Progress of IFR Projects**

**As of June 30, 2023**

<u>Description</u>	<u>Proj #</u>	<u>Estimate</u>	<u>Expended</u>	<u>Estimated Funds to Complete</u>
IFR 2021 (2016ABC)	290	\$17,376,750	\$12,654,213	\$4,722,537
IFR 2022	291	\$8,458,540	\$1,916,152	\$6,542,388
		\$25,835,291	\$14,570,366	\$11,264,925

## **IFR Report**

This report contains information on the approved programs under the current Infrastructure Replacement Program (IFR) restricted funding approved by the PUC. The restricted IFR account is fully funded at \$6 million annually.

### **Current Infrastructure Projects**

#### **IFR 2021**

IFR 2021 includes several critical upgrades to the KCWA, or the Authority, distribution system to increase resiliency and higher quality of service. The project scope is comprised of replacement and new installation of water main and supporting infrastructure in the Towns of Coventry, East Greenwich, West Warwick, and Scituate. IFR 2021 involves the installation of approximately six (6) miles of pipelines consisting of primarily 12-inch and 8-inch ductile iron pipe and three pressure reducing valve (PRV) stations. This work includes reservicing existing and new customers to higher pressures, looping dead end mains to increase water quality, and inactivation of old obsolete and degraded piping. As with all IFR pipeline replacement projects on existing roadways, pavement restoration is incorporated into this project resulting in higher quality road surfaces when the projects are completed. Also included are the installation of service connections, furnishing of telemetry equipment and programming to KCWA's supervisory control and data acquisition (SCADA) system, connections to existing mains, hydrants, fittings, by-pass piping systems, and other related appurtenances. A new PRV station on Pontiac Avenue in West Warwick was also installed as part of IFR 2021 to provide redundancy to the Oaklawn area of Cranston and the area of West Warwick from the Cranston and West Warwick town line to Wakefield Street in West Warwick. The IFR 2021 construction bid was awarded on February 18, 2021, to CB Utility Co. Inc. This project will be completed in December 2023 with the exception of final paving by April of 2024 at a contract price of \$13,504,316.

## **IFR 2022**

IFR 2022 has been designed to continue the aggressive replacement of critical infrastructure for several high priority locations within the KCWA distribution system. The work of this project generally involves the installation of water mains in the Town of West Warwick, which will serve the Kent County Water Authority. This project involves installing pipelines consisting of approximately 7,600 linear feet of 16-inch ductile iron pipe, 4,360 linear feet of 12-inch ductile iron pipe and 2,100 linear feet of 8-inch ductile iron pipe. Specifically, the project involves the replacement of 1887 vintage cast iron main along Cowesett Avenue. While in the roadway, we will be simultaneously installing a separate high service line to loop several dead ends mains and reservice localized areas of historic low pressures. A major component to this project is the replacement and relocation of water main at the intersection of Cowesett Avenue and Bald Hill Road. Water main failure at this location has the potential of catastrophic collateral damage to surrounding infrastructure due to the recent installation of a natural gas high pressure underground station and infrastructure in close proximity to KCWA's existing water infrastructure. The IFR 2022 construction bid was awarded on October 27, 2022, to Boyle & Fogarty Construction Co., Inc. This project will be completed in the Summer of 2024 at a contract price of \$8,381,537.

## **Future IFR Lead and Galvanized Service Replacement**

With the passage of the Bipartisan Infrastructure Law (BIL), the Drinking Water State Revolving Fund (DWSRF) will be receiving approximately \$292 million of additional funding for projects, including \$179 million for lead service line (LSL) and galvanized service line replacements. Currently, 49% of the funding is allocated toward principal forgiveness/grants on full private and public side replacement. KCWA is working to put together a project to obtain the grant funding to remove any remaining lead and galvanized service lines in the system.

## **Meter Replacement Program**

The original meter program funding under Docket 4611 did not include the replacement of large and medium meters sized 3-inches and above. There are approximately 300 accounts out of 27,500 that fall into this category but contribute 20% of the revenues to the Authority. The Authority strongly felt that the large meter customers needed the most current and correctly sized

metrology in place to accurately monitor the use from these customers in real time with the latest technology.

Docket 5012 expanded the meter program to include a right-sizing survey for larger meters sized three inches and above to best determine if size and type of each large meter is correctly matched to the downstream use. The survey outlined the recommendations on replacement of registers and unitized measuring elements (UME) and update/replace old turbine meters to new ultrasonic meters. The goal of the program is to apply a uniform metering technology to deliver improved service and billing that is in line with current utility standards. The Authority is also providing certified large meter testing for every meter checked, updated, and/or installed under the program to ensure baseline accuracy. All meters are being outfitted with the same latest generation automatic meter reading (AMR) technology and metrology as what was installed on all meters sized 2-inches or less. We are also outfitting every large meter with additional updated microchips installed in the register heads that have the ability to broadcast a Long-Range Wide Area Network (LoRaWAN) signal. When activated, the Authority and the customers will have the ability to monitor these accounts in real time similar to expensive fixed network systems without additional infrastructure costs. This phase of the project is currently approximately 90% complete and should be completed by Spring of 2024.

### **Payment Processing**

Starting in July of 2023, the KCWA began using Invoice Cloud to accept payments. Invoice Cloud allows KCWA to provide online payment processing in a securely hosted, real-time environment.

Invoice Cloud was selected to replace the existing payment processor, Jet Pay, because of its ability to send notifications to customers reminding them of their bill due dates. These notifications have been useful in preventing non-payment shutoffs. Customer service representatives are able to notify customers of a pending non-payment shutoff, allowing the customer sufficient time to make a payment prior to their non-payment shutoff date.

Invoice Cloud allows customers to view and print bills and payment records online and make a payment using credit cards, debit cards and electronic checks all through the existing KCWA online customer portal and automated phone service with no transaction fees. Invoice Cloud also allows customers to store multiple payment methods in the online customer portal.

### **Hydraulic Model / GIS/ Utility Cloud**

*Hydraulic Model:* The Authority updated its hydraulic model and integrated the model with our GIS system using WaterGEMS. Integration with the GIS system and the tools in WaterGEMS allows for hydraulic and pipeline evaluations inclusive of age, material, diameter, break history, water quality, static and residual pressure analysis, and scenario development more efficiently for optimization and the creation of IFR and CIP projects. The Authority is now performing full in-house hydraulic modeling for customers/developers requesting these services.

*Utility Cloud:* The Authority has launched the integration of Utility Cloud to manage its assets and project programming. Specifically, storing all critical operation and maintenance data, as-builts for development of a systematic preventative maintenance program for our pump stations, tanks, treatment plants, and pressure reducing stations. Small system assets and programs are also tracked. These include, but are not limited to, hydrants, blowoffs, Digsafe, and private construction inspection. Utility Cloud will also rest on our CIS system for the office staff and managers to create work orders that are available on the operator phones or tablets in the field.

### **Quonset Development Corporation (QDC) Wholesale Interconnection**

QDC and KCWA both use groundwater wells located within the Hunt River Aquifer. KCWA has two wholesale interconnections from Providence Water Supply Board (PWSB) that are conveyed to the south to backstop the existing supply in that region. Analysis performed by the RI Department of Environmental Management suggested that the intermittent surface flow conditions may be influenced by high water withdrawals from the Hunt aquifer. The water supply being conveyed through KCWA to QDC will purportedly relieve the stress on the aquifer and provide an alternative water source thus enhancing the reliability of the available water to allow them to maximize growth within the business park. QDC wanted to present to all new businesses that are interested in coming to RI and producing new jobs that there are zero utility constraints regarding available water. Based on these findings, QDC determined that it was in the best interest of the park to enter into a permanent wholesale agreement with KCWA. It should be noted that with the aforementioned legislation in place and water quality studies completed, a similar agreement could be extended to provide wholesale water to the Town of North

Kingstown to alleviate the same PFAS issues that face that community. KCWA has more than sufficient capacity to satisfy the needs of both QDC and the Town of North Kingstown.

An interconnection agreement between QDC and KCWA was executed on March 19, 2021. The PUC approved the wholesale rate to feed QDC in the most recent rate filing PUC Docket 5012. QDC completed the construction of the infrastructure necessary to start conveying water to the business park in the Spring of 2022. The Rhode Island Department of Health required a corrosion control study prior to the activation of service. This was completed in August of 2022 and the service was activated in October of 2022 at a rate of approximately 200 GPM. The current feed design will accommodate the full build out of the park at 1.7 million gallons per day. KCWA has sufficient capacity to meet these demands.