



November 4, 2021

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, 2021.

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

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, 2021

Estimat	tec
Funds	to

Description	Proj #	Estimate	Expended	Complete
IFR 2016A, B, C (Design Only)	290	\$11,763,381	\$974,354	\$10,789,026
IFR Structure Demolition	293	\$378,330	\$378,330	\$0
IFR 2018	296	\$3,281,378	\$3,281,378	\$0
Water Supply Hydraulic Model	297	\$106,844	\$106,844	\$0
		\$15,529,932	\$4,740,905	\$10,789,026

IFR Report

This report contains information on the approved programs under the current IFR restricted funding approved by the PUC. The IFR 2017 Series A bond was paid off January of 2021 as approved under KCWA's most recent abbreviated rate filing Docket #5012. The restricted IFR account is fully funded at \$6 million annually with the debt service rolling off upon paying the bond in full.

Infrastructure Projects

IFR 2021

Design Services have been completed for several high priority locations within the KCWA system. KCWA expanded on design services to include three critical pressure reducing valve (PRV) stations that are currently outdated and are not connected to KCWA's Supervisory Control and Data Acquisition (SCADA) system, removal of obsolete pipework to enhance water quality and service on Frenchtown Road, advance high service water main up Division Road to loop areas currently serviced at pressures lower than the required 20 PSI to create a IFR 2021 project. The IFR 2021 will also include several prioritized locations from the original 2016 design documents for water main replacement. The IFR 2021 construction bid was awarded on February 18, 2021 to CB Utility Co. Inc. for \$10,671,614. KCWA will continue to replace the water mains from the balance of completed IFR designs as funding becomes available. The majority of IFR 2021 should be completed with the exception of final paving by December of 2021.

Meter Replacement Program

Small Meters - Revenues were collected in a restricted account to replace all meter sized two inches and below as approved in the PUC rate filling Docket 4611. It was estimated that approximately \$6.6 million dollars would be needed to be collected over three years at which time a compliance filing would be submitted to the PUC to potentially terminate the funding effective January 1, 2020, or on whatever date the program funding needs to be terminated to complete the project. An extension to the compliance filing was granted by the PUC to February 1, 2020. The Authority was allowed to continue funding of the program through August of 2020 under the most recent abbreviated rate filing Docket #5012 with the additional funds to be

utilized to pay off and defease outstanding debt/bond issues. All bond funds have been paid off and/or defeased. The funding was ceased for meter program and given back to the rate payers in a rate reduction effective September 1, 2020 as approved under PUC Order 23896 Docket 5012.

The total proposed meter project cost was \$6,169,192 and the installation of approximately 25,000 meters. The project is about 95% complete with an estimated final completion by December of 2021. There was a three month delay due to effects of Covid-19 pandemic and accessibility issues in April and May of 2020. There were additional delays due to the uptick in Covid-19 cases in Fall of 2020 and people postponing appointments until the vaccine was more widely distributed and cases come down. There are approximately 1500 locations that need to have their meter changed as of October 2021. Ten percent of these customers are still not allowing the meters to be changed due to Covid-19 concerns. The others are mostly plumbing related issues and/or final scheduling is in process with the contractor. The Authority is working with all customers to complete the project before the contract ends this year. Many customers have received nine notices over two years to have their meter changed out.

Large Meters - 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. Having the most current metrology in place to accurately monitor the use from these customers is critical to the base revenue requirement and cash flow for the Authority. The monthly billing coupled with advanced metering and alerts provides these customers with the most current usage information so they can make conservation adjustments if possible.

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 outlines the recommendations on replacement of unitized measuring elements (UME) and update old turbine meters. The goal is to apply a uniform metering technology to deliver improved service and billing that is in line with current utility standards. The Authority will also be providing certified large meter testing for every meter checked, updated, and or installed under the program to ensure baseline accuracy. All meters will be outfitted with the same latest generation automatic meter reading (AMR) technology and metrology as what is currently being installed on all meters sized 2-inches or less. We are also outfitting every large meter with additional 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 in progress and should be completed by Spring of 2022.

Monthly Billing and Customer Information System

It was the goal of the Authority to expand monthly billing to all customers under Docket 5012. However, it was felt at the time by PUC/DPUC that this request would be better situated in a future rate filing after completion of all the meter replacements in the system with radio remote reading capabilities. As a result, only medium and large customers started monthly billing March 2021 as approved under Docket 5012. However, the extreme drought in 2020 and abnormal use patterns experienced from the pandemic spurred a flurry of billing disputes from summer usage. It was concluded in the investigations performed by KCWA and DPUC that the increased usage was primarily the result of outdoor water use from irrigation and/or recreation. This usage was further aggravated by the extreme drought conditions and shifting of residential use patterns resultant from COVID-19. The massive increase in water use during the summer of 2020 was experienced by every water supplier in the State of Rhode Island.

These events accelerated the monthly move from requests by both the customers and members of the General Assembly. KCWA prepared a petition for relief to have all customers go onto monthly billing by late summer/early fall of 2021 ahead of a rate filing. The Authority officially filed a Tariff Advice and Petition for Relief in March 2021 to move all customers with meters sized two inches and less onto monthly billing. The first monthly bills started in August for Coventry customers, followed by West Warwick in September, and lastly Warwick/East Greenwich in October. The updated metering system has been tremendously successful. KCWA has been able to perform high usage checks for the customers to help detect problems earlier such as water leaks and proactively alert customers.

Utility Billing and Customer Information System.

KCWA has deployed cloud-based utility billing and customer information system (UB/CIS) to allow automatic bill payment and a customer portal to view and pay their bill online starting March 2021. Since deployment, over 7,000 customers have signed up along with the online systems. Out of the 7000 customers, approximately 2,000 have enrolled in automatic payment withdrawal and 2,400 are paperless. The new bill format was also launched as shown here:

WELCOME TO YOUR NEW WATER STATEMENT





You Asked and We Listened.

Use this guide to navigate the new layout. If you have any questions, we're happy to answer them.

Your new statement is designed to quickly present the information you need, while also providing the valuable detail you want.

Call our knowledgeable customer service team at 401-821-9300 between 8AM and 4PM, Monday through Friday or come visit us at 1072 Main Street in West Warwick.

FRONT OF BILL

Pay Stub - The top portion of your water statement must be remitted if you pay by mail or in person. You'll find your name, account number, service address, due date, and customer ID (CID) code. Your CID code is used to register for online payments and customer portal.

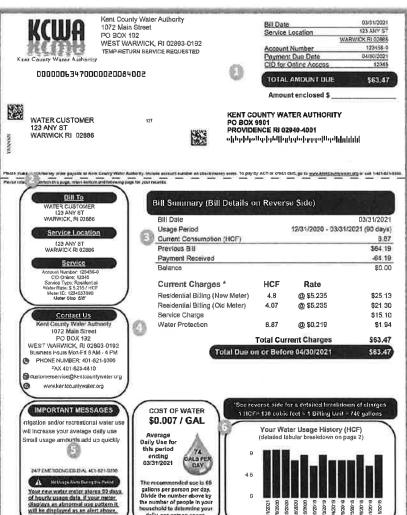
Account Information - The bill to location, physical service location, account number ,CID online access number, meter ID and size.

Bill Summary - Here is where you will find your prior balance, past payments, usage period, current consumption and current charges and due date. Current Charges — shows the usage amount in hundred cubic feet (HCF) and rate/HCF and other service and state required water protection charges. If your meter was changed during the last billing cycle it will show the usage on both meters.

Ontact information - Office location and hours, phone numbers, email, website URL

Message Center and Alerts - Special messages from KCWA will appear here. If you had a new meter installed, usage usage alerts will also be displayed. 24/7 emergency phone number.

Water Use at a Glance - A graph of your past usage provides an indication of how current consumption compares to previous bills. This area displays the actual cost of water per gallon. Average Daily Use - Displays your average daily use for the most recent usage cycle/bill period. Customers can use this compare to average per person per day



Continued on reverse.
NEW WATER STATEMENT

NEW WATER STATEMENTContinued from front

BACK OF BILL

Meter Reading Information - This area lays out the specific meter reading information obtained by KCWA in the last billing cycle. If your meter was recently changed out from the meter change out program. This area presents both the old meter and new meter installation information along with the usage on each.

Understanding Your Bill - Definitions of terms and charges within your billing statement.

Tabular Historical Use - You will see the number of days between meter reads and the amount of water consumed in both HCF units and gallons for the last several billing cycles to easily compare past usage patterns. This will allow you the customer to take charge of any conservation measures to save water and cost.

Billing and Payment Options - There are many easy ways to pay your bill displayed here. In addition to online payments, you can always pay your bill in person at the office at 1072 Main Street in West Warwick during regular business hours (M-F 8AM-4PM) or drop off anytime in the dropbox on the side of the building. We recommend the free AutoPay service for convenient automatic payments.

Usage Alert Definitions - If you had a new meter installed, it stores 90 days of historical use information. If the meter registers continuous use it will flag the account as an alert.

Water Quality Reports - We are required annually by the EPA to provide water quality reports to our customers. These are referred to as Consumer Confidence Reports (CCR). All water quality information is available at: kentcountywater.org/water-quality-reports

SAVETIME AND MONEY WITHAUTOPAY

Sign up for automatic payments with AutoPay and be confident that your bill is paid on time, every time. Payments are automatically and securely deducted from your checking account. No more checks to write...no more stamps to buy...and no lost or late payments.

Learn more at www.kentcountywater.org or by calling 401-821-9300.

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INFORMATION ABOUT RATES

Our commitment to providing water service to you goes beyond the operation of the vast and sophisticated infrastructure required to deliver safe, reliable, high-quality water to your home or business. We are also committed to providing this service at the lowest cost possible

RATE REDUCTION - KCWA reduced its rates across the board effective September 1, 2020. Residential customers saw a 15% decrease in their rate.

REINVESTMENT- KCWA reinvests nine million dollars annually into RIPUC approved critical infrastructure replacement and capital improvement projects. The pay-as-you-go model provides the lowest cost to ratepayers to replace critical infrastructure. KCWA also has a highly favorable Aa2 Bond rating due to timely payments from restricted accounts and healthy debt service coverage.

MONTHLY BILLING - KCWA will be fully implementing monthly billing after full approval from RIPUC. It is our goal to have the roll out starting in August and be completed by October of 2021.

View all of our rates at: https://kentcountywater.org/rates-billing.aspx The new bill now gives the customers the information more frequently to better manage budgeting and potentially proactively locate higher-than-normal water consumption with comparative graphs. The alerts are shown on the face of the new bill in the bottom left.

Customers often call on KCWA to investigate issues. The new AMR meter technology working in concert with the UB/CIS systems has been arming our staff to perform temporal consumptive use analysis, so our customer service staff is armed with detailed information. Follow up by the staff using data analytics and reporting provided by the software will drive more efficient and effective post processing prior to uploading to the utility billing/customer information system. This post processing will involve our staff to quickly analyze flagged accounts generated by the meter reading software on a map displaying various outliers such as high or zero consumption amounts, tamper, or misreads to determine outliers via flags presented by the meter reading software. Many times, these meters will have to be investigated further by the staff to gather additional consumption data or determine the root cause of a flag. The meters can store/log up to 90 days of usage data that can be acquired via software on a laptop, tablet, or smartphone via remote communication. These data can be presented to the customer in person, emailed, or presented via a customer portal.

Hydraulic Model / GIS/Utility Cloud

Hydraulic Model: The Authority updated its hydraulic model and integrated with our GIS system using WaterGEMS. Integration with the GIS system and the tools in WaterGEMS now 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 inhouse hydraulic modeling for customers/developers requesting these services. There have been four evaluations completed to date.

Utility Cloud: The Authority has launched the integration of Utility Cloud to manage its assets and project programming. Specifically, hydrants, large meter testing, and backflow prevention programs are being launched on the platform. 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. The work order feature will be enabled in Summer of 2022.

Quonset Development Corporation (QDC)Wholesale Interconnection

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 is completing construction of the infrastructure necessary to start conveying water to the business park by the Fall of 2021. QDC and KCWA both use ground water 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 suggests 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 produce new jobs that there are zero utility constraints regarding available water.