

TO: Mayor & Council Members
FR: Larry DiRe, Town Manager and Kristy Marshall, Town Clerk
DT: September 7, 2021
RE: Election judge appointments

The following individuals are proposed as appointees for the role of election judge for the September 28, 2021 municipal election. Staff is requesting action at this time.

Elaine Hubbard
Shirley Greene
Janie Eskow
Wendy Garner

TO: Mayor & Council Members
FR: Larry DiRe, Town Manager
DT: September 7, 2021
RE: Capital Projects Update

Staff is providing an informational report, as update, on several on-going and planned capital projects. Staff is not requesting any action at this time.

Log cabin – This has been a summer-long project and significant improvements are now completed. The roof replacement and window frame repairs were completed by mid-July and mid-August respectively. The contractor is working on correcting a portion of the cabin's front side that is protruding. This corrective measure will be completed in the next few weeks.

Marina Park bulkhead – After renegotiating the scope of work and contract cost to be closer to the amount of grant funding received, Mayor Abner signed the revised contract in the sum of \$30,483. The signed document was emailed for the contractor for his signature. Staff is awaiting receipt of that fully executed document. Work should begin in early to mid-October.

Marina Park stormwater management – Staff has an on-site meeting with the Department of Natural Resources (DNR) staff to do a site visit on Tuesday September 21, 2021. While the bay saver sediment filtration system could not be funded by these grant funds from DNR, that equipment is an eligible expenditure under the American Rescue Plan Act funding. The bay saver equipment and installation should cost in the range of \$85,000.

Old Denton Road water main – Financing this project is under review by the Maryland Department of the Environment (MDE). Staff has a meeting with the MDE financial analysis group on Wednesday September 8, 2021.

Solar panel project – Two important administrative steps toward completion occurred in late August. The project change orders were submitted to MDE staff for review and approval. A representative from Delmarva Power's parent company signed the interconnection agreement document, which was signed by Mayor Abner on March 15, 2021, and returned it to the contractor. That agreement document and a revised project budget were submitted to MDE staff for review and approval. The town staff, town engineer, and project contractor are waiting for MDE disposition of these various submittals.

TO: Mayor & Council Members
FR: Larry DiRe, Town Manager
DT: September 7, 2021
RE: ARPA\CSLFRF drawdown – information technology upgrades, security camera system upgrades, and donation to Federalsburg Volunteer Fire Company

The American Rescue Plan Act (ARPA) was signed into law by the president of the United States on March 11, 2021. One of the key provisions of ARPA was support for units of local government impacted by the coronavirus pandemic of 2020 and 2021. The Coronavirus State and Local Fiscal Recovery Funds (CSLFRF) language of ARPA cites the specifics for local units of government receiving funds from their respective states and uses for these funds. All funds must be spent or obligated by December 31, 2024. Funds cannot be used to offset a tax cut, or to pay for employee pension funds.

One eligible expenditure use is a loan and/or grant program to nonprofit organizations. Following mayor and town council discussion held at the August 16, 2021 meeting and work session, which included the recommendation to update aging turnout gear and air packs as enhanced personal protection equipment (PPE) for firefighters, staff is proposing a drawdown from CSLFRF in the sum of \$131,085 (representing 5% of the town's total allocation) as donation to the Federalsburg Volunteer Fire Company payable in town fiscal years 2021-2022, and 2022-2023. As a subrecipient of federal funds the fire company will need to document a competitive procurement process and provide the town with complete purchase documentation for auditing purposes.

Staff is proposing two drawdowns in equal sums of \$39,325 (each representing 1.5% of the town's total allocation) for information technology upgrades to allow remote work and contactless processes and transactions, and enhanced operation observation and security camera upgrades for water and sewer facilities respectively. Given the relatively small expenditures and flexible nature of these eligible uses staff is proposing procurement and payment anytime from September 2021 through June 30, 2024. These expenditures must be documented for auditing purposes and shown as either fiscal year budget amendments for the current year or included in the budgeting process for upcoming fiscal years. These expenditures and obligations total \$209,735, or 8% of the town's total allocation. Added to the approved drawdown of \$13,670 to replace property inspection revenue lost due to the pandemic and state of emergency in effect, to date the total proposed and approved drawdowns total \$223,405, or 8.52% of the town's total allocation.

Staff recommends approval of a drawdown of \$209,735 as expenditures and obligations from the ARPA\CSLFRF to the town treasury for the eligible use expenditures cited above.

TO: Mayor & Council Members
FR: Larry DiRe, Town Manager
DT: September 7, 2021
RE: Water meter upgrade presentation follow up

On August 31, 2021 the mayor and town council held a special work session for a presentation by SUEZ to gain information about the potential for an advanced metering infrastructure (AMI) process in town as part of a general upgrade of the water utility. The attached infographic depicts the AMI process and briefly addresses many of the issues faced by water utilities. The issues are likewise facing the town of Federalsburg.

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Presented for discussion purposes at this time. Following discussion, staff requests direction on this matter.

ADVANCED METERING INFRASTRUCTURE (AMI)

UTILITY CHALLENGES



AGING METERS

Water meters, whether mechanical or electronic, are subject to wear and eventually lose the ability to correctly measure and record flow. AWWA recommends testing periodically.¹



CUSTOMER SERVICE

Overall customer satisfaction score for water utilities is 702 on a 1,000-point index. A score lower than those of airlines and mortgage servicers.⁴ Billing questions are among top reasons customers contact their utility.⁵



LACK OF CAPITAL INVESTMENTS

In 2019, the total capital investment of water infrastructure was approximately \$48 billion while investments totaled \$129 billion creating an \$81 billion gap.⁷



NON-REVENUE WATER

Water loss (80% real loss + 20% apparent loss) + unbilled consumption²
Significant cost to US utilities, \$4.9 billion per year.³



AGING WORKFORCE

Retirements in the water sector result in staffing vacancies in utilities of up to 50% in some cases.⁶



WATER CONSERVATION

Water Conservation / water supply availability is #3 most important issue for utilities.⁸

WHY METERS ARE IMPORTANT?

1

They are your cash register

In the U.S. water utilities collect **over \$61.8 billion** in revenue each year. All of this is achievable thanks to meters.⁹

2

They help you track non-revenue water

We estimate that water systems in the US may have as much as **50% non-revenue water**.¹⁰

3

Charge equitable share

Your meter systems allow you to charge customer an equitable share of water they use **by recording actual usage**.

4

Encourage water conservation

Meters encourage water conservation compared to flat rates. Plus, they help with **detection of water leaks and waterline breaks** in the distribution system.

METER READING EVOLUTION



Manual reading



AMR



AMI

Reactive : manual monthly reading

Advanced Meter Reading (AMR)

Technology used by utilities to collect automatically consumption and status data from meters. AMR systems can be either walk-by or drive-by. An endpoint connected to the meter captures the data, which is collected by utility personnel by walking or driving by with a data receiver in close proximity to the device. Regardless of how the meter is read, the communication is one-way. The meter communicates with the meter-reading device, but the device cannot send a command back to the meter. After collection, the data is transferred to a database where utilities can monitor and analyze usage, troubleshoot issues and bill customers based on actual consumption, rather than estimates as is often the case with manual read systems.

Proactive : online hourly reading

Advanced Metering Infrastructure (AMI)

Refers to an integrated system comprised of meters, communication network and data management system that enables two-way communication between meter endpoints and utilities. The system automatically transmits the data to the utility via a fixed network either on request or at short fixed intervals. The utility can use the near real-time data to monitor water usage, detect system malfunctions or irregularities and improve overall operational efficiency. Unlike AMR, AMI does not require utility staff to collect the data and more importantly, it enables two-way communication between the meter and the utility, allowing commands to be sent to the meter for different purposes, including remote service disconnects.

Sources:

1. American Water Works Association - AWWA Standard - ANSI/AWWA C700-15

2. American Water Works Association, management (2016)

3. Amame, American Water Works Association (2015), Global World Market (2015)

4. Satisfied Customers: The Key to Water Infrastructure Investment article in WaterWorld (2017)

5. Ofwat SIM Survey (2015/16)

6. Renewing the Water Workforce report from Brookings Metropolitan Policy Program (2018)

7. Drinking Water Infrastructure Needs Survey and Assessment: Sixth Report to Congress from EPA (2018)

8. 2019 SOTW: AWWA State of the Water Industry

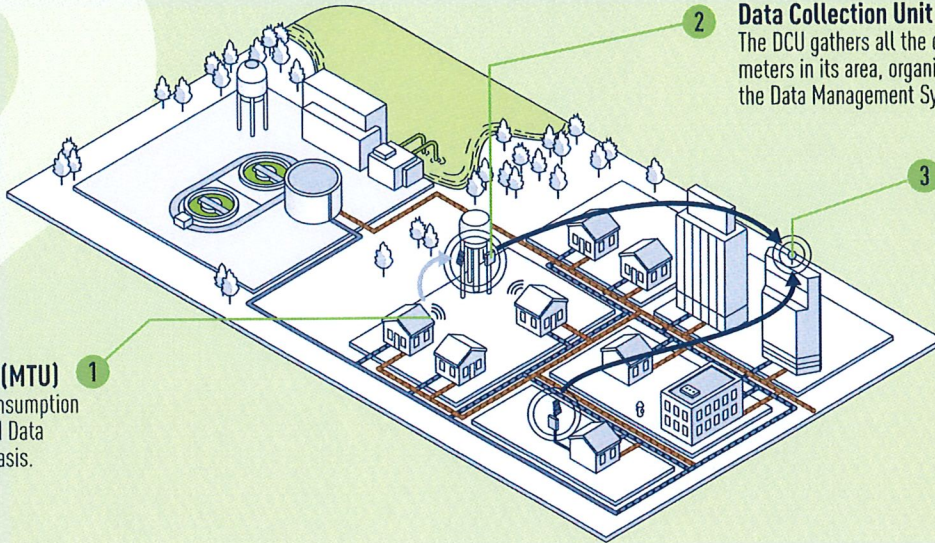
9. Revenue of water utilities - United States 2000-2018, Statista

10. What Is Non-Revenue Water?, Fluencecorp

HOW DOES AN ADVANCED METERING INFRASTRUCTURE SYSTEM WORK?

1 Meter Transmitting Unit (MTU)

The water meter reads the consumption and sends the data to the AMI Data Collection Unit on a regular basis.



2 Data Collection Unit (DCU)

The DCU gathers all the data sent by the meters in its area, organizes it and sends it to the Data Management System.

3 AMI City Headend

All the data is received and organized in a secured network control computer connected to the City systems for:

- Water Monitoring
- Billing
- Customer service

SUEZ METERING ASSET MANAGEMENT PROGRAM

What is Included?

1 Installation

We design AMI systems with the turnkey installation of smart water meters to maximize your revenue through accurate meter readings (and billings).

2 Integration

We integrate the Host AMI software with your billing systems and supply and install a cloud-based meter data management system for storage and analysis of data.

3 System Management

Over the life of your system we analyze metering data daily to guarantee system performance while providing a full range of long-term maintenance, support and communications services.

4 Long-term Maintenance

We provide 15 year warranty and maintenance of the entire system. We proactively perform on-going preventative and corrective maintenance of the AMI network and equipment (software and hardware). We supply all these services for a set annual cost, easy to budget.

What are the Benefits?

- Revenue enhancement
- Reduction of water loss
- Improved customer service
- Operational peace-of-mind
- Single point of responsibility
- Long-term transfer of risk
- Spread of initial deployment cost
- Predictable budget