BACKGROUND:
In May of 2018, the Public Utilities Division was awarded $150,000 from the Division of Water Infrastructure for help with funding of a water loss detection program. The City contracted with Gutermann, Inc. to provide training, equipment and documentation to implement and sustain a water loss reduction program.

ANALYSIS:

The awarded grant funds were used to purchase four Gutermann products; a Zonescan 820, Aquascan 610, Multiscan and the Aquascope 3. The Zonescan uses cylindrical devices called “loggers” to identify and pinpoint leaks through sound in lines. These loggers work best in smaller neighborhood lines and filter out other noises, such as traffic. Multiscan, another Gutermann product, is best used on larger sized pipes; it also uses loggers to detect sound in water lines to identify leaks. Both the Multiscan and Zonescan are deployed overnight, as they get the best results when the water lines are experiencing the least amount of use. The following morning, the information is viewed online, either on desktops, tablets or smartphones. When a leak is detected, the Aquascope is deployed in the field to
pinpoint the leak. It is highly portable and easy to use. It comes with a ground microphone foot, as well as a hand probe for close listening to detect leaks in any situation.

Grant funds also went towards training and support of this equipment. Training was conducted during the week of February 4th and included hands-on field work with a Gutermann representative onsite to ensure City staff fully understood equipment operation. Additional training is scheduled within the next few months.

With over 150 miles of water line in the city, City staff still has a long way to go towards project completion, but we are excited to already be reaping the benefits of the equipment. Since the start of training only a couple of weeks ago, City staff has already scanned 16.50 miles of the City’s water lines. Of these 16.50 miles and with only one week of training under their belts, staff has been able to locate two major water leaks totaling a loss of 1,557,000 gallons per month. The first leak found was on Parsonage Street where the field crew found water leaking into a storm drain at the corner of Parsonage and Factory. It was pinpointed with the help of the Aquascope device, and a small section of the street was removed to find the leak and repair it. The next leak was located at the corner of Mill and Crawford Street. The County had notified the City that a meter that normally only has a usage of 1,000 gallons had used over 500,000. The crew was deployed, and using loggers and Aquascope, were able to pinpoint the location yet again and repair the leak. Lastly, staff is currently working to locate a leak on Mill Street. With the past two successful finds, staff is confident the leak will be located soon.

**STAFF RECOMMENDATIONS:**

For information only.