Clarkdale uses sound to detect sewer blocks

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"Can you hear me now?"

The town of Clarkdale will soon implement a new acoustic technology to inspect the sewers for blockages and determine where maintenance is needed.

Clarkdale Town Council Public Works Director Maher Hazine brought the proposal before the Town Council at a special meeting Tuesday, May 25 where council members unanimously approved it.

Hazine said sewer line maintenance is necessary to maintain a functioning sewer collection system. This has generally been accomplished by using a closed-circuit TV to watch for blockage and damages and show where maintenance or cleaning is required.

While this system has proven effective, it is expensive and time-consuming. And because Clarkdaleis a smaller community, the town has traditionally had to hire outside contractors to maintain the sewer system. Because of this, the sewer is only serviced when absolutely necessary.

"You don't want to wait until you have so much buildup that you have to do this," Hazine said. "It's one of those where you have to be proactive."

Hazine proposed that the town contract with R.H. Borden and Co. out of South Jordan, Utah, to inspect and map the entire sewer system. R.H. Borden and Co. is the only company in Utah, Idaho, Arizona, Nevada and Wyoming that has the rights to use the Sewer Line Rapid Assessment Tool, or SL-RAT, a new acoustic technology that determines where obstructions in the sewer system are with sound, according to InfoSense, Inc., the manufacturer of SL-RAT.

The SL-RAT is used by placing a transmitter and a receiver on adjacent manholes. The transmitter then emits a sound, which is picked up by the receiver if there are no blockages. If something is obstructing the pipes between the transmitter and receiver, the receiver will not pick up any sound and can show crews exactly where a blockage such as roots, grease, debris, high water levels, sagging pipes, etc. is located.

The service will also provide the town with the GPS location of every manhole in Clarkdale. The town currently has an idea of where they are, but the GPS location will be much more accurate, Hazine said.

The SL-RAT is also able to negotiate bends and obstacles in the pipe since it uses sound unlike the CCTV Clarkdale was using to detect blockages. The technology can inspect a length of pipe in about 3 minutes or less and can evaluate about 10,000 feet in a day's time. Hazine estimated that for a town the size of Clarkdale that the entire inspection would take around a week, which is about two weeks less than the traditional method.

The contract will cost the town nearly $23,400 for the crew, service and manhole inspections plus taxes. This charge is just about 10% of the cost of what the town was paying for the CCTV, according to the proposal.

Councilmember Bill Regner asked if the town experiences sewer blockages regularly. Hazine said while it doesn't happen all the time, they've received calls from residents saying they had a plumber tell them they're experiencing sewer backing up to their home because there's a blockage in the service line. Not only is this an inconvenience to everyone involved, but being reactive to sewer blockages instead of proactive can actually cost the town money, Hazine said.

"If you wait and you have a backup, and the sewer line spills onto the street, then you have a violation you have to deal with," he said. "If that causes a spillage into somebody's home, you'd be responsible for the cleanup and all repairs and carpet replacements. So depending on the extent of damage, it could be very much."

Hazine said the contractor is already currently in Arizona and could start work as early as the first week of June.

Mayor Robyn Prud'homme-Bauer said she appreciates the Public Works Department being proactive and bringing this proposal to the council.

"Thank you for being proactive," she said. "These are wonderful tools for us."