

November 20, 2014

A special meeting of the Council of the City of Martinsville, Virginia was held on November 20, 2014, in Council Chambers, at the Municipal Building, at 12:00 noon, to conduct a called worksession. Council Members present included: Mayor Adkins, Vice Mayor Gene Teague, Sharon Brooks Hodge, Danny Turner, Mark Stroud, and Council Member Elect Jennifer Bowles. Staff present included: Leon Towarnicki, City Manager, Brenda Prillaman, Linda Conover, Eric Monday, Andy Lash, Dennis Bowles, Wayne Knox, Sean Dunn and Jeff Joyce.

Report on engineering study of 6.2 mile section of sanitary sewer interceptor line that extends generally along the Smith River to the City's Wastewater Treatment Plan: Leon Towarnicki and Scott Ehrhardt of Dewberry presented the following information:

Smith River Intercept Investigation

Investigation Results and Path Forward.

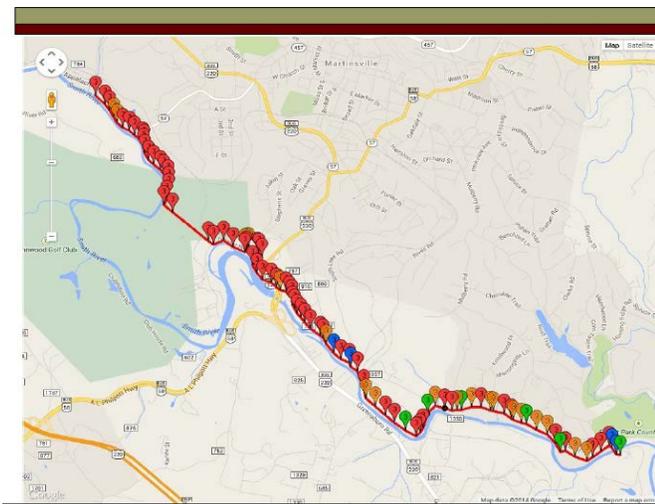
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Background

- The Smith River Intercept Starts at Koehler and ends at the Wastewater Treatment Plant, spans 6.2 miles.
- All sewage from the City except the Mulberry Intercept travels through it. County waste comes from closed Koehler plant and north side.
- 4.2 miles Corrugated Metal(CMP) with asphalt liner. The remainder is Reinforced Concrete(RCP)
- Constructed in early '60s.
- Has a lifespan of 35 to 50 years.

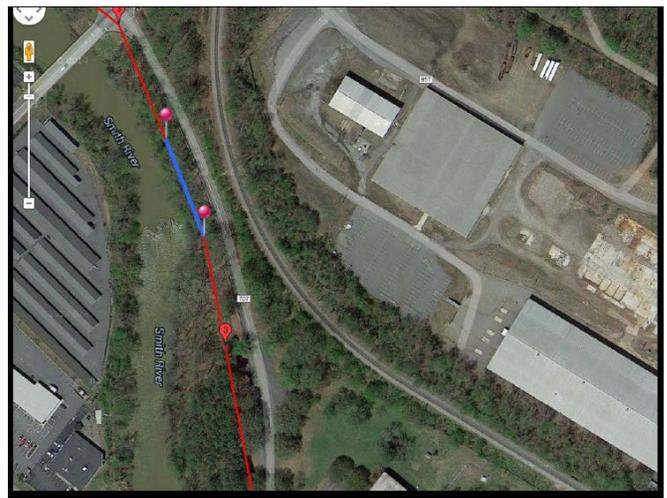
City contracted with Dewberry to oversee the investigation

- RedZone Robotics was contracted to do the field investigation.
- Camera equipment with Ultrasonic and Infrared detection.
- Investigation started in June and ended in July.
- The results of the investigation indicate repair work is needed.
- Suggested repairs are in two phases; immediate, and others scheduled over multiple years.



Immediate Need -Section of CMP Between Walker Road and Smith River

- Approximately 200 feet of 42 inch CM pipe that has significant collapse. (80% +/-)
- Location presents significant challenges.
- The slope supports the only road in and out of the old Bassett Walker Plant.
- Has large gas main under the road.
- The railroad in supported by the same slope.



Challenges

- Very limited access to the section.
- Need to investigate geotechnical structure of surrounding property.
- Bypass/pump-around during project.
- Need to stabilize the slope during repairs.
- Install pipe liner from manhole 43 to manhole 43.5 while line access is available.
- Leave bank in stabilized condition.

The Path Forward

- Categorize/prioritize needed repairs
- Investigate funding options for short term and long term repairs.
- Request authorization at upcoming Council meeting to proceed with the initial phase of the project.

Additional Sections of Partial Collapse



After lengthy discussion, Council agreed to have this issue on the December 9 Council meeting agenda for authorization to proceed with initial phase of the project.

Report regarding possible upgrades to the City’s utility metering system: Leon Towarnicki and Dennis Bowles presented the following information:

City of Martinsville

Meter Replacement and Self-funding Projects

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What is AMI/AMR

- **AMI - Automated Metering Infrastructure**
 - is an architecture for automated, two way communication between a smart utility meter and a central database for utility billing, trouble shooting and data analysis. Communication can be continuous.
- **AMR – Automated Meter Reading**
 - is an automated one way communication from a utility meter to a central database for utility billing and status reporting. Communication is interval-based.

Water Meter Replacement was the driving factor for AMR/AMI



- Meter replacement is recommended every 15 to 20 years.
- Majority of City’s meters are well over 20 years.
- Meter accuracy degrades over time – typically will get slower as they age.

Options Investigated

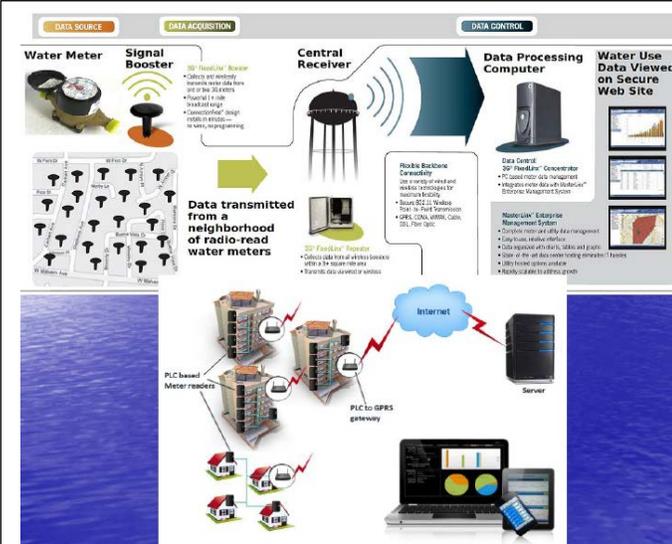
- With changing technology, staff investigated the latest metering techniques and equipment.
- Automated metering is now in a mature state and is the industry standard.
- Collection is either fixed based or drive-by systems and usually accomplished by radio communication, telephone or network system
- Staff visited Iredell Water Corp. in Late July 2011 and observed their data collection process.
- Visited Danville Utilities

Benefits of AMI over AMR

- Data is continuous and easily accessible.
- City can monitor electrical quality at meter.
- Water leaks can be detected for the customer almost immediately.
- Current readings can be accessed quickly without truck rolls

Overview of Possible System

- When the meters are replaced they will be equipped with a radio transmitter.
- Different systems have different means of gathering the data.
- Fixed-based (AMI) systems are becoming less expensive.



Process Followed . . .

- City has budgeted for meter replacement for a number of years, but delaying project pending review of options
- Conducted a test of approx. 100 sample meters and found accuracy at approximately 95%.
- Concluded improved accuracy would generate revenue that could be used to fund meter replacement project

Energy Savings Companies

- Considered structuring an AMI/AMR project with a participating ESCO as a self funding process.
- This is a widely-used option and ESCO's have numerous AMI/AMR deployments
- City issued "Back of the Envelope" invitations to 5 companies. Received proposals, conducted interviews.
- Currently working with Johnson Controls

Johnson Controls

Proposal includes:

- Evaluate AMI cost for installation and maintenance
- Evaluate Street Lights (LED lighting)
- Evaluate Sludge Dewatering & Disposal Options

Johnson Control Cont.

- Projects will be structured as self-funding – savings pays for project.
- Cost of investment-grade audit for evaluation is \$175,000. If self-funding project cannot be developed, City has no cost obligation for audit.
- If City accepts the project, the audit cost is rolled into overall project cost.

Next Steps . . .

- Opportunity to review information, clarify, ask questions
- At upcoming Council meeting, request will be made to authorize execution of agreement to proceed, identifying funding for audit (expected to take 6 months +/-)
- Upon completion of audit, staff will review findings and determine an appropriate project scope.

Next Steps cont. . .

- Presentation made to Council, along with recommendation for project scope and implementation.
- Arrange project financing (bond issuance)
- Project savings finances debt service.
- Project implementation
- Measure & Verify, report results.

After lengthy discussion, Council agreed to have the metering issue on the December 9 Council meeting agenda for authorization to proceed along with the sewer issue.

No other action was taken at this worksession and there being no further business, Mayor Adkins adjourned the meeting at 2:10 pm.

Brenda Prillaman, Clerk of Council

Kim Adkins, Mayor