

LAKE ST. LOUIS SEWER IMPROVEMENT PROGRAM - INSPECTION COMMUNITY UPDATE: OCTOBER 12, 2016

At the direction of the Public Water Supply District No. 2 of St. Charles County, Missouri's Board of Directors, the Lake St. Louis Advisory Committee has been tasked with facilitating distribution of regular and periodic updates on the project status to the various project stakeholders and the general public. The following is the Advisory Committee's update on the Contractor's work performed to date, as well as a summary of community concerns which have been received by the Advisory Committee and/or PWSD2 Staff and how these concerns are being addressed. If you have concerns which have not been addressed, we encourage you to [contact](#) a member of the Advisory Committee so that your concern can be addressed in future Community Updates.

1. Overview of Contractor's work to date:

- a. Right-of-Entry Acknowledgments:
 - i. Contractor has obtained acknowledgments for all but one site (97% complete).
- b. Contract 1: Inspection, Condition Assessment, and Mapping:
 - i. Pre-Inspection:
 - 1. Ongoing. Approximately 22,600 LF complete (roughly 61%).
 - ii. Locating:
 - 1. Survey data has been collected for the on-land manholes.
 - 2. Mains in both lakes have been located utilizing toning technology. Buoys were temporarily installed to mark detected locations as appropriate. Underwater markers remain at some locations, however most above-water buoys have been removed. The accuracy of the locating data is currently being reviewed and verified.
 - iii. Soil Sampling:
 - 1. Two sets of soil samples have been gathered, one for geotechnical design properties and the second soil corrosivity properties. Samples have been gathered and tested. Corrosivity results indicated the soils samples tested would be classified as "potentially corrosive" to iron pipe. Additional samples will be gathered and tested as necessary.
 - iv. Cleaning:
 - 1. Ongoing. Cleaning of several shorter laterals (less than 1,000 feet) is ongoing. Cleaning of longer laterals is expected to be limited until the new access structures are constructed.
 - v. Final Inspection:
 - 1. Ongoing. Approximately 13,200 LF complete (roughly 36%).
 - vi. Conceptual Access Structure Design:
 - 1. Review and comment of conceptual design plans by PWSD2 staff is ongoing.
- c. Contract 2: Access Structures:
 - i. Notice to Proceed will be issued upon receipt of Performance & Payment Bonds.

2. Community Concerns Raised and Being Addressed:

- a. Is the contractor's camera equipment stuck in the sewer line?
 - i. On the afternoon of Monday, September 26, IPI's camera, cable, and other associated equipment became lodged within the sanitary sewer main beneath Lake St. Louise approximately 600 feet upstream of the manhole downstream of the dam. Sewage continued to flow past their equipment until the Tuesday evening, when sewage levels within the manholes around the edges of Lake St. Louise were noticed to be raising. At

that point, the District's Emergency Response Plan was put into action, and equipment was put into place to pump sewage out of the Lake St. Louise sewer system and haul it to a site downstream of Lake St. Louise. District staff and the contractor's subcontractors worked around the clock for the next several days pumping down the manholes, while IPI worked to dislodge their stuck equipment. In an effort to maintain open lines of communication, robo-calls were sent to adjacent customers informing them of the situation and the potential dangers, and the appropriate municipalities and other governing authorities were notified. IPI was able to finally dislodge and remove their camera and associated cable from the downstream manhole late in the evening on Thursday. IPI removed the last piece of their equipment from the Lake St. Louise mains on Friday afternoon (September 30). At this point normal flow through the Lake St. Louise trunk main was reestablished, although District personnel continued to monitor the manholes around Lake St. Louise to ensure that no residual blockages were negatively affecting operations. During this emergency event, no basement backups, sanitary sewer overflows, or interruptions in customer service were reported. All pipes are currently clear of IPI's equipment and the Lake St. Louis sewer system is back to normal operation.

- b. Was anything learned from this emergency event?
 - i. One positive aspect of this emergency event is that it gave the District the opportunity to place into action an Emergency Response Plan (ERP) that had never been put into use before. Fortunately, the ERP performed as intended and the District was able to avoid any customer interruption in service. But as with any document or protocol, improvements can always be made. Several lessons learned from this exercise include:
 1. Clear lines of communication between all parties need to be well established.
 2. Certain tools and safety equipment needs to be immediately available on-site, rather than relying on off-site subcontractors to transport to site. Additionally, pre-planning and notification taking into consideration the availability and response time of the contractor's emergency subcontractors personnel and equipment could serve to shorten their response times or at least make other arrangements, if necessary.
 3. The importance of relaying accurate and timely information to all entities should not be underestimated.

The District plans to take the information learned from this experience and incorporate it into the ERP and day-to-day operations, so that they may be even better prepared for similar emergency events if they were to occur in the future.

- c. Is inspection activity going to continue? What are the next steps for the project?
 - i. At this time inspection activity is planned to continue. IPI is reevaluating their process for inspection of future mains to ensure that risk is being minimized. It is estimated that only 66% of the mains underneath both lakes can be pre-inspected prior to the new access structures being installed. This figure reduces to 40% when referring to cleaning and final inspection. Current percentages complete are estimated to be 61% and 36%, respectively, meaning that very little additional line can likely be inspected prior to the new access structures being constructed. While cleaning and inspection are the most visible portions of the project, several other tasks are being completed concurrently. Conceptual design of access structures is underway, and geotechnical testing is occurring as necessary. IPI is working toward construction of one access structure in the big lake this fall/winter. The remaining four access structures are currently planned to be installed next spring/summer.