

## Columbia County, Georgia

### Takes a Proactive Approach to Identify Inflow and Infiltration

Recognized as one of Money Magazine's 2020 Best Places to Live, Columbia County is a rapidly developing area located just northwest of Augusta, Georgia. Due to the rapid influx of residence, the utility experienced a need to identify and control inflow and infiltration (I/I).

#### The Challenge

Columbia County had to continually evaluate capacity in order to ensure the system could safely handle the wastewater from new connections, a result of a quickly growing population. Developers were required to test (smoke, camera, dye) a new development before acceptance of the wastewater system. The County had to continually perform testing (smoke, camera, dye) to identify I/I issues.

In addition, in the last few years, the County assumed management of the water and sanitary sewerage system that formerly belonged to the City of Harlem, Georgia. Dating back to the late 1800's, Harlem's sewerage system presented a new set of challenges as I/I seemed to be widespread in the system due to system age, pipe materials, and staff becoming overwhelmed due to rapid growth.

#### The Solution

The County desired a product that didn't just alert the organization to a potential issue but delivered analytics to assess the issue. The County deployed SmartCover's real-time satellite sewer monitoring to deliver greater visibility into the system.

SmartCover allows the County to locate the hotspots for triage approach, determine the magnitude of the issue, allocate resources as needed, and enable the deployment of mitigation measures to resolve the issue.

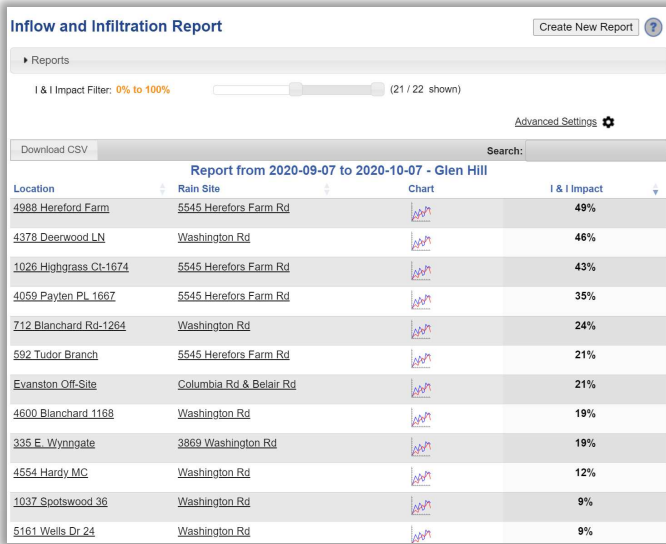
#### Highlights:

- Utilized analytics to assess potential I/I issues
- Quickly identified and resolved I/I issues while reducing risk to customers
- Verified capacity before allowing new ties to system

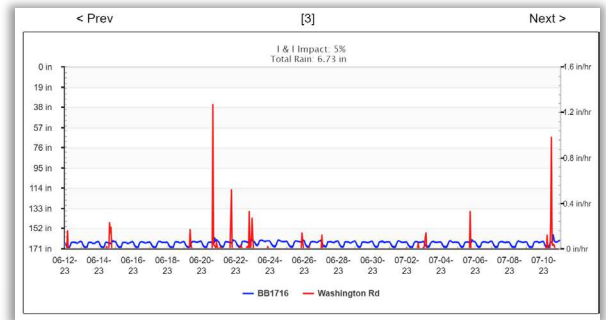


# The Results

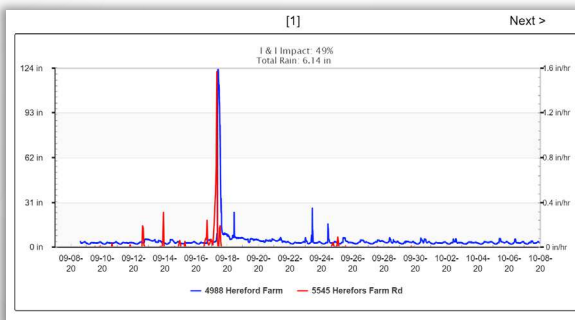
The County integrated the innovative smart sewer technology into their I/I program. The County has taken advantage of the ease of mobility of the SmartCover units to maximize their data collection. Only 2 units are permanently in place in high-risk areas to identify any potential SSOs. The remaining units are actively relocated to other locations to gather data and identify I/I issues. The analytics gathered from SmartCover technology have allowed the County to quickly identify and resolve their I/I issues.



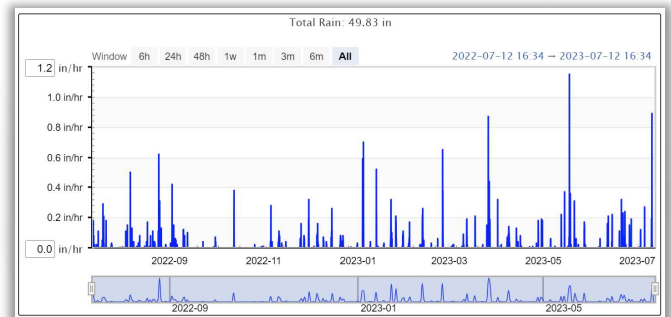
Example of I&I Prioritization After a Significant Storm Event



Example of a 'Tight' Collection System



Example of a Drill Down on High Inflow Site



Example of Monitoring Rainfall Intensity on Total Rainfall Within a Basin

# Conclusion

The deployment of the SmartCover smart sewer technology has allowed the County to handle expansion with existing infrastructure. Growth was able to proceed while reducing risk to customers and minimizing the costs associated with infrastructure expansion. The cloud-based monitoring solution provides the County with constant visibility and continued condition assessment. The new accessibility to actively resolve their I/I issues as they continue to grow include new connections to their collection system.