CUSTOMER CASE STUDY

Expediting LCRR Compliance with Predictive Modeling

Rock Hill, SC

FERGUSON WATERWORKS

PROJECT OVERVIEW

CUSTOMER:
The City of Rock Hill

PRODUCT:
VODA.ai® LeadZero™

LOCATION:
Rock Hill, SC

VODA.ai
LeadZero™

CHALLENGE:

To comply with LCRR requirements, the utility would have to visit and verify 30,000+ laterals, driving operational costs up to $7.5 million and overtaxing staff and equipment resources.

SOLUTION:

Use VODA.ai® LeadZero™ to reduce necessary field inspections by 97% and save over $7M of expenditure to reach LCRR compliance.

PRODUCT ADVANTAGES:

- Uses predictive modeling to determine automatically which pipes require sampling to meet the utility's desired confidence level
- Enables faster and more efficient planning for lead inventorying
- Intuitive software allows for all lead sampling and inventorying to be done in one place
- Solution offers a customer-facing website to then allow the utility to publish and maintain the inventory easily

BACKGROUND

In December 2021, the Environmental Protection Agency (EPA) published the Lead and Copper Rule Revisions (LCRR), a series of changes to EPA mandates regarding public water systems. The LCRR set a deadline of October 16, 2024, for all community and non-transient non-community public water systems to prepare and maintain an inventory of service line materials—on both the utility and customer side—to support future efforts to replace lead lines for public safety.

Prior to this mandate, most public utilities had not inventoried or maintained records of line materials on the customer's side of the meter.

Rock Hill, South Carolina, is the fifth-most populous city in state, with more than 75,000 residents in its utility service area. Verifying lead service lines in Rock Hill would require more than 30,000 field visits, each of which would demand ≤$250 in operational costs for a total of ≤$7.5 million.

Additionally, this work would tie up staffing and equipment resources that were already engaged with infrastructure improvements citywide.

PROJECT SCOPE

The City of Rock Hill connected with Ferguson Waterworks to identify a better path to compliance than conducting 30,000+ individual visits. The answer was VODA.ai®, a suite of technological solutions leveraging artificial intelligence to manage water infrastructure more efficiently. VODA.ai® LeadZero™ software uses proprietary models and intelligent machine learning to identify the likelihood of lead in any given service line.

METHOD

VODA.ai® LeadZero™ created a ranked list of Rock Hill's service lines, prioritized by how likely each is to contain lead. Armed with this information, the Rock Hill Water and Sewer team conducted less than 1,000 field visits for verification—a 97% reduction in expected labor and nearly $7.3 million in cost savings.

THE SOLUTION: FERGUSON WATERWORKS AND VODA.AI®

As a national leader in utility support, we're proud to offer our customers the best and most innovative pipe replacement planning solutions on the market. Our strategic partnership with VODA.ai® is helping utilities from coast to coast manage material inventories and eliminate the impacts of lead service lines in our communities.

For more information, ask an expert: MunicipalSales@ferguson.com

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