

FAILURE OF RISING MAINS IS A MAJOR POLLUTION RISK FOR SEWERAGE UNDERTAKERS. EFFECTIVE DIAGNOSIS OF FAILURES CAN SIGNIFICANTLY REDUCE FURTHER FAILURES.

THE NEED

Sewer rising mains are a high risk asset group with a failure rate ten times higher than for gravity sewer collapses. A single main will often fail a number of times. A failure is also much more likely to cause pollution. It is estimated that rising mains failure cost the UK water industry over £60 million per year in direct costs. Fines have recently been increased and can be in excess of £1 million for a Category 1 or 2 pollution incident. To reduce fines companies need to demonstrate that they have adopted good practices to limit the risk of rising mains failure. Where a failure occurs companies need a practical solution to ensure that optimum decisions are taken in line with best practice in order to limit the risk of further failures and pollution incidents.

BUSINESS BENEFITS TO CLIENTS

- A significant reduction in the number of rising mains failures leading to savings of £30 million per year nationally.
- Reduced likelihood of prosecution and reduced fines from a reduction in repeat failures and an ability to demonstrate good practice management practices.
- Reduced customer impact thereby improving customer SIM scores.

WORK PROGRAMME

1. A review of rising mains failure mechanisms.
2. Development of a defect classification system and pipe material identification guide to allow the correct failure mechanism to be diagnosed.
3. Review of relevant test and investigation methods available to provide more detailed diagnosis.
4. Development of a practical web-based application to guide users through the diagnosis process;
5. Support of the for draft application tool during a nine month trial.

WRc will carry out this project in association with Don Ridgers, an independent consultant with extensive experience in this area.

WHY INVEST?

- A reduction in the number of rising mains bursts leading to savings of £30 million per year if adopted nationally.
- Reduced risk of prosecution from rising mains failures and reduced fines.

RELATED WRc WORK

- New Sewage Rising Mains Inspection Methods, CP371, 2009-11
- Manual of Sewer Condition Classification 5th edition 2014
- Various rising mains failure investigations
- SRM website 2008 & 2013.

Duration: 15 Months WRc Contact: Peter Henley Telephone: +44 (0) 1793 865022
Email: peter.henley@wrcplc.co.uk Topic Area: Network Operations