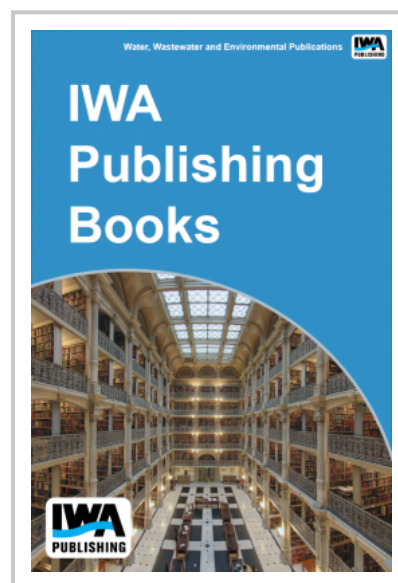


Development of Protocols and Methods for Predicting the Remaining Economic Life of Wastewater Pipe Infrastructure Assets: Phase 1 (Development of Standard Data Structure to Support Wastewater Pipe Condition and Performance Prediction)

Accurate prediction of wastewater pipe structural and functional deterioration plays an essential role in the utility asset management process and capital investment planning. The key to implementing an asset management strategy is a comprehensive understanding and prediction of asset condition and performance. The primary objective of this research is therefore to develop protocols and methods for predicting the remaining economic life of wastewater pipe assets. The limits of deterioration prediction capabilities are not in mathematical models or statistical analysis methods, but in lack of accurate and consistent data. This report presented the short-term phase-1 which has been completed with results from intensive literature reviews, various interviews with utilities, and pipe associations. In this phase, the research team investigated the life cycle of wastewater pipeline and identified the causes of pipe failure in different phases including design, manufacture, construction, operation and maintenance, and repair/rehabilitation/replacement. The Research team has prepared various modes and mechanisms of pipe failure in wastewater infrastructure system as well as identified environmental and societal consequences of the failure. After reviewing all relevant reports and utility databases, the research team has developed a set of standard pipe parameter list (data structure) and pipe data collection methodology. The data structure has been classified into Gold, Silver, Bronze and Wood standard.



Also available as part of your Water Intelligence Online subscription

Publication Date: 15/12/2011

ISBN13: 9781843393337

eISBN: 9781780403311

Pages: 120

Print:

Standard price: £94 / €118 / \$141

Member price: £71 / €88 / \$106

eBook:

Standard price: £94 / €38 / \$50

Member price: £71 / €29 / \$38