

DETAILED COST ANALYSIS OF WATER PIPELINE - CONDITION ASSESSMENT AND RENEWAL ENGINEERING

ABSTRACT:

WATERiD was developed as the de-facto national database to capture and share vital information on drinking water industry practice. A portion of the WATERiD initiative included data mining triple bottom line costs related to pipeline condition assessment and renewal engineering for the analysis of trends and drivers. This research work summarizes the results observed including all primary direct costs of a few commonplace technologies in the industry, supplementary direct costs (traffic control, inspection, etc.), and a novel look at societal costs such as traffic delays and business disruption. The data came from nearly 50 drinking water and wastewater utilities of varying size and location in the US and amounted to over 350 examples. The results present apparent direct cost drivers and quantified societal costs that will enhance utilities' financial decision making in asset management.

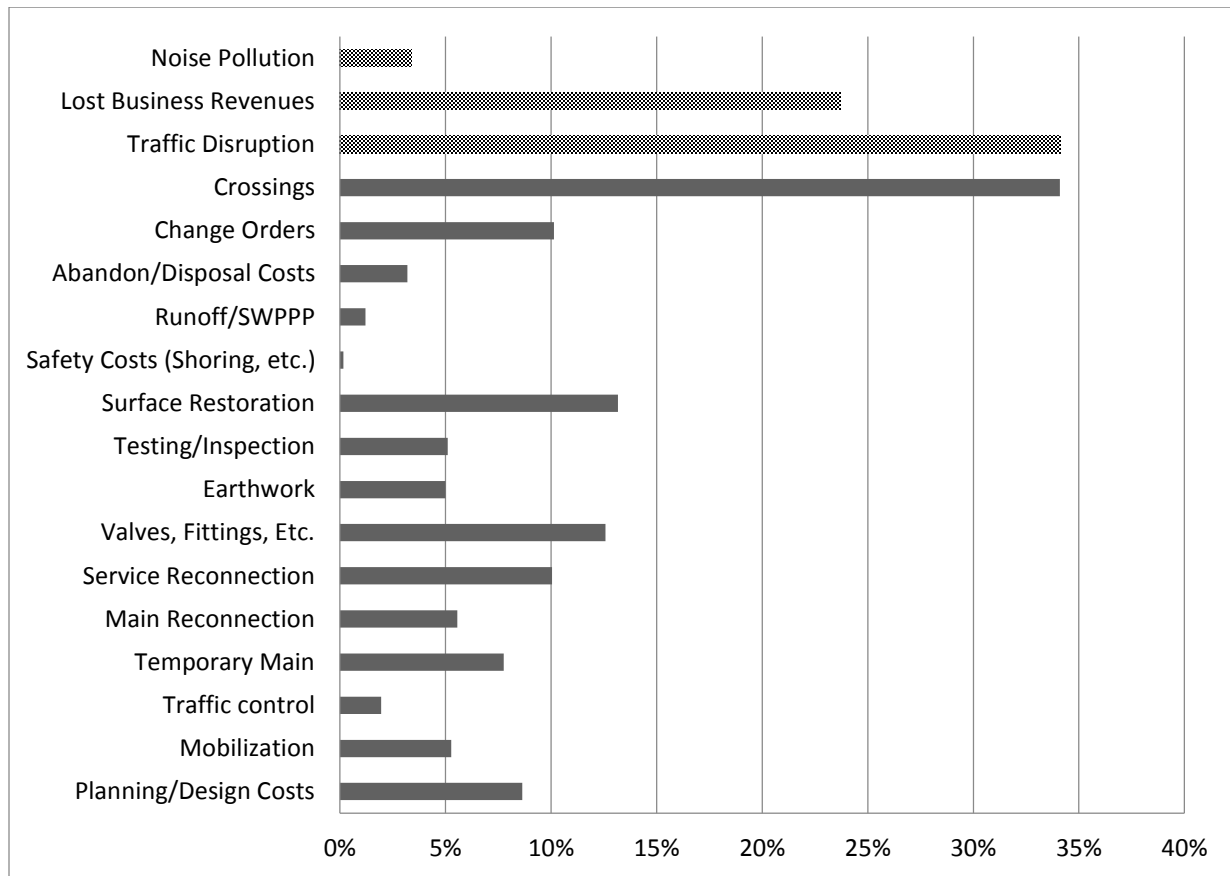


Figure 1: Direct and Indirect Cost as Percentage of Total Cost

CONTACT:

Dr. Sunil Sinha; Email: ssinha@vt.edu; Phone: 540-231-9420