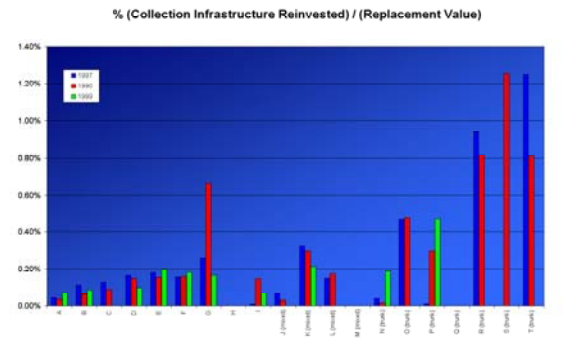


Process Benchmarking on Infrastructure Reinvestment



Information collected during the first two iterations of the Canadian Water and Wastewater Utility Benchmarking project saw that the rate of reinvestment in the wastewater infrastructure of the participants was too low to keep up with the ageing of these assets. As one of the deliverables of the following Benchmarking iteration, Earth Tech was tasked with conducting process benchmarking on reinvestment in wastewater utility assets at the participant utilities, which required collecting information on reinvestment and asset replacement values at the 22 benchmarking participants. Amongst other things, it was found that very few utilities had an up-to-date estimate of the replacement values of their wastewater treatment plant(s). The solution was to use either a combination of current construction costs, or the original construction value escalated by inflation to determine replacement values.

The asset management practices of the participant utilities were compared with municipal best practices, and a high level framework called the “Six Whats of Asset Management” was developed to assist utility managers in defining infrastructure reinvestment needs. The “Six Whats” framework states that a utility will need to respond successfully to the following six questions to determine its reinvestment needs:

1. What does the utility own?
2. What is it worth?
3. What is its condition?
4. What is the deferred maintenance?
5. What is the remaining service life?
6. What to fix first?

Since publishing the process benchmarking report on Infrastructure Reinvestment as part of the Phase III Wastewater Utility Benchmarking Final Report, a number of Canadian utilities have adopted the “Six Whats” framework to define their infrastructure reinvestment needs.

PROJECT DETAILS

CLIENT: Over 20 Wastewater Utilities, as part of the Canadian Wastewater Utility Benchmarking Project

LOCATION: Canada wide

REFERENCE INFORMATION

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PROBLEM

A growing need was found for rehabilitation or replacement, as infrastructure assets age and expected service lives approach. What is a sustainable level of reinvestment in wastewater collection systems and treatment plants, and how should a utility go about in determining its reinvestment needs?

CHALLENGES

To determine the current level of reinvestment in the wastewater collection systems and wastewater treatment plants of the Benchmarking participants.

SOLUTION

Data collection site visit to over twenty Canadian wastewater utilities. A framework called “The Six Whats of Asset Management” was developed to assist utility managers in defining their infrastructure reinvestment needs.

BENEFITS

Adoption of a standardized method to compare infrastructure reinvestment rates through performance benchmarking, and the development of a structured approach to determining reinvestment needs.