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## **WATERLINE REHABILITATION: THE OBJECTIVES AND THE TECHNOLOGIES**

Norman E. Kampbell, P.E.

Rehabilitation Resource Solutions, Hilliard, OH

**ABSTRACT:** This paper reviews the objectives of the rehabilitation of the potable water piping system and the technologies currently emerging to answer those needs. While the need to rehabilitate these systems has been strong for some time now, the choices have been relatively few as compared to that of gravity pipeline rehabilitation. Longer system outages, more complex issues addressing the branch connections, and few (if any) no-dig access points, have challenged the innovation of the rehabilitation industry to address this segment of the infrastructure. Several new ideas have emerged over the last two years that are beginning to show promise for the rehabilitation of the potable water piping system. From new epoxy coatings, to encapsulation of the cement mortar lining with a thermoplastic liner, to full blown structural rehabilitation using compact shape thermoplastic piping and new variants CIPP; many options are being tested for their applicability in the North American potable water piping system. This paper will discuss those technologies and give guidance to the engineer and system owner as to their applications, their economics, and their benefits.