

# **WATER PINCH ANALYSIS EVOLUTION TOWARDS A HOLISTIC MANAGEMENT OF WATER RESOURCES**

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## **ABSTRACT**

This paper reviews the evolution of water pinch analysis (WPA) research and development efforts towards a holistic and sustainable management of water resources. Four major WPA developments which relate to utility targeting, network design, process changes and the evolution of WPA from industrial to urban sector are presented. Integration of the pinch-based techniques in the four key areas provides a holistic management of water resources that incorporates all possible water conservation strategies cost effectively and practically.

**Keywords:** Pinch Analysis, Water Minimization, Reuse, Water Management, Wastewater.