Department of Chemical and Environmental Engineering

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Assessing the Impact of Wildfires on Source Water Quality and Treatment

Abstract: The impacts of wildfires on source water quality and treatment have become an emerging area of interest to utilities. Wildfire can cause significant changes to watersheds that serve as sources of potable water and can impact both water quality and quantity. For example, the Cache La Poudre (CLP) watershed in Northern Colorado was impacted by the High Park fire, which burned from June 9th through July 1st of 2012. Following this wildfire, a series of projects were designed and conducted to 1) Evaluate the impact that the wildfire had on the properties of dissolved organic matter (DOM), specifically with respect to disinfection byproduct formation; 2) Establish the condition under which the source water could be effectively treated; and 3) Evaluate potential ways in which utilities could assess impacts on water quality and treatment performance. This presentation will presents results on the work done so far.

BioSketch: Dr. Fernando L. Rosario-Ortiz is an Associate Professor of Environmental Engineering at the University of Colorado-Boulder. Dr. Rosario received his BS and MS in Chemistry from the University of Puerto Rico and the California Institute of Technology, respectively. He received his doctoral degree from UCLA in environmental science and engineering in 2006. His current research focuses on environmental photochemistry, impact of watershed perturbations on water quality and characterization of organic matter in different environments.

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