

Characterization of Organic Wastewater Contaminants from Aqueous Samples

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The environmental impact of the use of reclaimed water to make snow on the San Francisco Peaks currently lacks scientific information to thoroughly understand how the reclaim snow will affect the native plants and animals of this area. The overall goal of this study is to collect baseline organic chemical data on the water present in the environment of the Peaks prior to reclaim snow making. Additionally, organic characterization of the effluent from the waste treatment plant providing the reclaimed water will be performed using solid phase extraction methods and liquid chromatography/mass spectrometry. Both sets of data are critical to gaining insight into how the reclaim snow making affects the chemical composition of the ecosystem. Work was initiated during summer 2005; this work provided a means to begin networking with a number of interested parties in the Flagstaff and Coconino County areas as well as initiating development of sampling and characterization protocols for water chemistry studies. The focus of this presentation is to discuss the efficiency of extraction techniques to maximize the collection of target organic compounds from natural and reclaimed water.

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