



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003ND28B

Title: A Study of Microbial Regrowth Potential of Water in Fargo, North Dakota and Moorhead, Minnesota

Project Type: Research

Focus Categories: Water Supply, Treatment, Water Quality

Keywords: Microbial regrowth potential, Biodegradable dissolved organic carbon, Assimilable organic carbon

Start Date: 03/01/2003

End Date: 12/31/2003

Federal Funds: \$8982.00

Matching Funds: \$17939.00

Congressional District: 1

Principal Investigators: Eakalak, Khan (North Dakota State University)

Abstract: In recent years, water quality scientists and engineers have emphasized on the biodegradability of dissolved organic matter in both raw and treated waters. This is because the biodegradable organic matter (BOM) in treated water can induce the growth or regrowth of microorganisms in the distribution system of drinking water. Residual BOM is usually the most important limiting factor responsible for bacterial regrowth in the water distribution system (Rittmann and Snoeyink, 1984). One of the most effective methods in controlling the bacterial growth in the distribution system is to limit the amount of BOM required for the growth of heterotrophic bacteria in treated water (Servais et al., 1993). Water containing BOM less than a minimum concentration that supports the bacterial growth is usually biologically stable. The regrowth potential of water in Fargo, North Dakota and Moorhead, Minnesota has never been evaluated. The goal of this study is to examine the concentrations of these two parameters in treated water provided by the Fargo and Moorhead water treatment plants. Collecting BDOC and AOC data is a first step to achieve the ultimate goal. The data will also indicate the degree of susceptibility of drinking water of Fargo and Moorhead to microbial proliferation. The study will benefit the cities in limiting the number of microorganisms in tap water if necessary.

[U.S. Department of the Interior](#), [U.S. Geological Survey](#)

Maintain: Schefter@usgs.gov

Last Modified: Wed May 28, 2003 4:26 PM

[Privacy Statement](#) // [Disclaimer](#) // [Accessibility](#)