



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2002CA2B

Title: The effect of Soil Water Content on Organic Chemical Sorption During Transport Through Unsaturated Soil

Project Type: Research

Focus Categories: Water Quality, Solute Transport, Groundwater

Keywords: solute transport, travel times, groundwater contamination, adsorption

Start Date: 03/01/2002

End Date: 02/28/2003

Federal Funds: \$20,000

Non-Federal Matching Funds: \$33,380

Congressional District: 43

Principal Investigators:

William A. Jury
University of California, Riverside campus

William T. Frankenberger, Jr.
University of California, Riverside campus

Abstract

The investigator on this project is William A. Jury
Environmental Sciences, Riverside campus
email: wajury@mail.ucr.edu
phone: 909-787-5134

This project is one of four to be submitted by the California Center to receive a portion of the allocation.

Results of this study will definitively determine whether sorption is important in coarse-textured soils of low water content and organic carbon, and will provide valuable guidance for transport models that are used in management and litigation. Virtually no experimental test of this hypothesis have been carried out in the past. Contamination of ground water by chemicals such as pesticides and solvents is a major worldwide problem and California's agricultural industry uses a significant share of the pesticides applied each year in the US, and has come under a host of regulations designed to improve chemical management and decrease contamination in the future. Estimation of chemical travel time from the surface to groundwater is often a critical factor in determining responsibility for contamination.