



WATER RESOURCES RESEARCH GRANT PROPOSAL

Title: Controlling *Cryptosporidium* in Drinking Water Supply for Small Communities

Duration: September 1, 1997 through August 31, 1999

Federal Funds Requested: \$50,000

Non-Federal (Matching) Funds Pledged: \$100,012

Principal Investigator:

Dr. Benito J. Marinas

Associate Professor of Environmental Engineering

Department of Civil Engineering

University of Illinois at Urbana-Champaign

Congressional District: 15th District

Statement of Critical Regional or State Water Problems

A major driving force behind the recent reauthorization of the Safe Drinking Water Act (SDWA) has been protecting the public from exposure to *Cryptosporidium parvum* (*C. parvum*). *C. parvum* is a protozoan parasite difficult to control because in addition to being a pathogen to humans, it also infects a large variety of domestic and wild animals present in most watersheds of the North Central Region and other areas of the United States. The most notorious case of cryptosporidiosis outbreak associated with drinking water took place in Milwaukee, Wisconsin in March of 1993 when about 400,000 people were affected.~ Although there is no cure for *C. parvum* infection, most people affected would recover in a period of one to two weeks.

However, the consequences of infection can be more severe or fatal for people with immune system deficiency problems such as AIDS or cancer, and organ donor recipients. Furthermore, infection during pregnancy might result in birth defects, premature or still birth, or miscarriage. Recent studies² have shown that over sixty percent of surface water samples taken from fifteen states including those in the North Central Region of interest in this competition were contaminated *with C. parvum* oocysts.