WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2004ND49B

Title: Analysis and Model Simulation of Stormwater Runoff -- A Study of Land Use and System Design on Discharge Flow Rates and Water Quality

Project Type: Research

Focus Categories: Non Point Pollution, Hydrology, Water Quality

Keywords: Urban Runoff, Non-point source pollution, Storm water runoff, Modeling

Start Date: 03/01/2004

End Date: 02/28/2005

Federal Funds Requested: $9,690

Non-Federal Matching Funds Requested: $19,381

Congressional District: 1

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Abstract

The goal of this research is to determine contaminant loads that are carried by urban runoff to the Red River by field sampling and model simulations.Considering the fact that urban runoff has been identified as a major source of pollution to the receiving water body, there is a growing concern of the extent of the problems caused by it. Development of a proper management plan suited to the local condition is essential. This research will help identifying the level of the problem and will provide a better understanding for developing a managemnet plan. A simulation model which would predict runoff load will be one important result of this research. Detention ponds have found increasing use in stormwater disposal systems. Some new areas of the Fargo city have been using them as flood control measures. This research will also test these ponds for their ability to control pollutant loads to the receiving waters.