



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: TX3221

Title: Determination of Regional Scale Evapotranspiration of Texas from NOAA-AVHRR satellite

Focus Categories: Water Use, Models

Keywords: modeling, evapotranspiration, remote sensing, GIS

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: \$4,915

Non-Federal Matching Funds: \$28,813

Congressional District: 8

Principal Investigator:

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Abstract

This project will explore the extent to which evapotranspiration (ET) can be accurately estimated through the use of remote sensing data. This could be especially useful for areas that are not well-served by conventional weather stations. The project will investigate if geographic information systems, satellite data, and remote sensing technologies can be used to develop spatial estimates of ET. Specifically, the use of a sensor placed on National Oceanic and Atmospheric Administration (NOAA) satellites called an Advanced Very High Resolution Radiometer (AVHRR) will be studied. Goals of this project are to develop a methodology to estimate ET for a wide range of land cover types, to develop a relationship between surface temperature and air temperature, and to determine if ET estimates can be made using only satellite data.