



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: CA3901

Title: Landscape Level Controls on Nitrate-Nitrogen in Forested and Chaparral Catchments of Southern California

Focus Categories: Water Quality, Management and Planning

Keywords: landscape hydrology, nonpoint source pollution, atmospheric deposition, biogeochemistry, drinking water, nitrogen retention, watershed management, water quality

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Federal Funds: \$12,189

Non-Federal Matching Funds: \$22,081

Congressional District: 43

Principal Investigator:

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Abstract

Knowledge of the stream and catchment characteristics and processes that influence nitrate loss or retention from catchments with high atmospheric N inputs will provide the basis for land management prescriptions that reduce the export of nitrate and associated cations, and protect water quality. This information will also be useful in predicting where the highest rates of nitrate export will be and what atmospheric emission precautions need to be taken to avoid adverse impact on surface water quality in class I wilderness areas and on drinking water. The objective of the research is to determine the relative influence of N deposition, nitrate production rates in soils, stream source waters, in-stream processes, and catchment properties on stream nitrate concentrations.