



WATER RESOURCES RESEARCH GRANT PROPOSAL

ENTERIC PATHOGEN REDUCTION BY ARTIFICIAL WETLANDS

DURATION: September 1, 1996 through August 31, 1998

FEDERAL FUNDS REQUESTED: \$120,032

NON-FEDERAL MATCHING FUNDS.

PRINCIPAL INVESTIGATORS

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CONGRESSIONAL DISTRICTS

Arizona 5th

California 37th

Hawaii 1st

STATEMENT OF CRITICAL REGIONAL OR STATE WATER PROBLEMS

Artificial wetlands have seen a dramatic increase in arid regions of Arizona and California

in recent years. They are seen in Arizona, California, and Hawaii as both as a benefit to limited riparian areas in the region and as an inexpensive method of enhancing the water quality of secondary wastewater. They may also play a role in improving water quality before water reuse for artificial groundwater recharge.

STATEMENT OF RESULTS OR BENEFITS

The results of this research will benefit those who are responsible for the design and construction of artificial wetlands for treatment of secondarily treated wastewaters.

Federal, state, and local government regulatory agencies will be provided with information on the reduction in enteric pathogenic microorganisms by various types of artificial wetlands. This should result in better design of artificial wetlands to optimize pathogen removal, which will, in turn, reduce the potential for disease outbreaks. In addition, new indicators will be evaluated which could provide simple and inexpensive means of monitoring pathogen reduction by artificial wetlands.