

McIntire-Stennis

RESEARCH PROJECT PROSPECTUS

University of Idaho, College of Forestry, Wildlife & Range Sciences  
1986

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TITLE: Testing Indicators to Monitor Wilderness Resource Conditions

PRINCIPAL INVESTIGATORS: E. Krumpe, J. Akenson & H. Akenson

OTHER PERSONNEL (e.g, grad students, cooperators etc):

Two Grad Students plus professors Garton, Stoszek, Falter, Bunting, Ables, Belt,  
Johnson, Neuenschwander, Peek & Wright

TOTAL AMOUNT REQUESTED: \$36,076.00

PROPOSED STARTING DATE: June 1986

DURATION: 2 years (Aug. 1988)

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RESEARCH GOAL: (What is problem or need addressed?)

The goal is two-fold: (1) to develop and field test methodologies to monitor indicators of wilderness resource conditions, and (2) to establish a long term monitoring program in the Frank Church River-of-No-Return Wilderness in central Idaho. The monitoring techniques developed in this project could be used to monitor physical, biological, and human resource conditions in any natural resource setting, such as National Forests, National Parks, Nature Preserves, or State forests.

RESEARCH OBJECTIVES: (List specific research objectives which when accomplished will meet research goal.)

(1) Conduct a literature review to identify methodologies for monitoring physical, biological, and human resource conditions in natural settings. (2) Assemble a panel of scientists and managers to select the best locations and indicators to monitor natural conditions in the wilderness. (3) Devise experimental techniques to test the proposed monitoring techniques and the evaluation methods. (4) Establish the experimental plots and collect the appropriate data and report results in scientific literature including FWR Experiment Station Publications.

PRODUCT/END USER: (What will be the output(s) from the project and who will be the end user/beneficiary (e.g. habitat management guidelines to be used by state F&G, or marketing data to be used by local industry in development of new products)? What evidence is there that the research is desired by or will be used by the proposed beneficiary?) The outputs will be improved techniques to monitor natural resource conditions which may be applied in any similar environment. The USFS, BLM, NPS, and the USFWS have several legal mandates to implement monitoring programs, including legislation such as NEPA, FLPMA, and NFMA. Within the next few years all Wilderness Areas will be required to begin resource monitoring. The 1985-85 MacIntire-Stennis project in which a panel of 100 scientists initially identified and prioritized indicators for monitoring has placed the College of FWR in the lead in this growing field. Ground truthing using multiple measures in a field setting will produce monitoring techniques which will be immediately adopted by all four federal agencies. Much of this monitoring work will be contracted and we should be very competitive.

**METHODS:** (How, when, where will the research be carried out and what methods/procedures, etc., will be utilized?) Two graduate students will work with the panel of local scientists to conduct the literature review on monitoring techniques. The field testing of the selected techniques will be conducted from the Wilderness Research Center Taylor Ranch Field Station. Scientists will be asked to help select the appropriate locations and conditions for testing the monitoring techniques in the Wilderness. Graduate students and work study students will primarily be responsible for collecting the field data, supervised by the appropriate scientists.

**POTENTIAL CONTRIBUTION TO DEPARTMENTAL & COLLEGE PROGRAMS:** (How does the proposed research compliment Q4E objectives or other departmental concerns? What impact will the project have on our constituencies? Does the research have potential as a seed for further funding. Will receipt of funding for this project be used in conjunction with monies already received from other agencies?) The proposed research directly addresses a College Quest and a key emphasis area. Quset 2 (WRM) WILDERNESS AND NATURAL AREA MANAGEMENT: MONITORING RESOURCE IMPACTS AND INCREASING HUMAN BENEFITS. Emphasis Area 1. Develop method and systems for monitoring natural conditions to aid management of wilderness and natural areas. Nationwide, scientists and managers identified improved monitoring techniques as a key need. Considerable work has already taken place and we are now ready to begin testing on the ground. Other funds from the Wilderness Research Center will support this project and the USFS has indicated a willingness to participate. This research will put us in line for future contracts to set up monitoring programs in many wilderness and forest settings.

**TENATIVE BUDGET:**

Salary	4 mo. <u>12,000</u>
Assistantship	<u>14,076</u>
Irregular Help	<u>4,000</u>
Equipment	<u>4,000</u>
Other (travel, etc.)	<u>2,000</u>
	36,076