

DRAFT: February 22, 1991

**PROPOSAL FOR CHALLENGE COST-SHARE AGREEMENT
BETWEEN THE UNIVERSITY OF IDAHO,
THE IDAHO NATIONAL ENGINEERING LABORATORY
AND THE U. S. FOREST SERVICE
FOR LONG-TERM MONITORING OF AIR QUALITY
AT THE UNIVERSITY'S TAYLOR RANCH WILDERNESS FIELD STATION**

The University of Idaho Wilderness Research Center (WRC) operates the Taylor Ranch Field Station as a focal point for interdisciplinary wilderness-related research by the University and cooperating institutions. A cooperative effort between the Wilderness Research Center and the Idaho National Engineering Laboratory (INEL) to develop background atmospheric monitoring as part of an integrated global environmental monitoring network was established in 1988. An atmospheric monitoring station was purchased and air, water, soil, and vegetation samples were collected in 1990 and will be again in 1991.

The 65-acre Taylor Ranch Field Station, located on the Big Creek drainage in the heart of the 2.3 million acre Frank Church River-of-No-Return Wilderness (FCRNRW) in central Idaho, is ideally suited for the location of such research. It is staffed year-round, has basic laboratory facilities, residence cabins, pack stock and an airstrip, four pristine mountain streams crossing the property, and it is the focal point for an on-going environmental and ecological research program. Because Taylor Ranch is located in the center of the largest contiguous acreage of designated wilderness in the lower 48 states, it serves as an excellent background site for a regional atmospheric monitoring program in the central and northern Rockies. FCRNRW currently is proposed for United Nations Biosphere Reserve status.

National and international concerns about the effects of global warming, acid deposition, and air-borne pollutants on natural communities will make long-term environmental monitoring increasingly important over the next several decades. INEL has taken a leadership role in developing the concept and methodology for an integrated global background monitoring network. The University has developed a program of wilderness research, which includes long-term environmental and ecological monitoring, over the past 2 decades at Taylor Ranch and elsewhere. The U.S. Forest Service recognizes the importance of long-term monitoring of ecological and environmental conditions of the lands under its management.

In this proposed cooperative program, the University provides an automated atmospheric air quality sampler plus Taylor Ranch personnel to perform routine collection of water, soil, and vegetation samples and service on monitoring instruments. INEL provides technical support, sample collection supplies (sterile plastic bags, water bottles, etc.), and laboratory analysis. University and INEL scientists will compile and analyze resultant data. The U.S. Forest Service provides monies for

sample collection supplies, shipment, and analysis. Monies would be routed to INEL with University expenses reimbursed by INEL.

ANNUAL BUDGET

FOREST SERVICE CONTRIBUTION

Sample supplies	\$ 100.00
Laboratory analysis	
solids (@ \$16.28/sample; 10 samples/yr)	162.80
liquids(@ \$10.50/sample; 8 samples/mo)	1008.00
INEL Technician (sample preparation; 14 hrs)	560.00
Shipping	400.00
Total Forest Service	2,230.80

UNIVERSITY CONTRIBUTION

Air quality sampler	8,800.00
Technician (sample collection)	1040.00
Benefits (@24.5%)	254.80
Total University	10,094.80

INEL CONTRIBUTION

Data compilation and analysis	320.00
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TOTAL CHALLENGER CONTRIBUTION \$10,414.80

ANNUAL PROJECT TOTAL \$12,645.60

Total FS Share	18% of Project Value
Challenger Share	82% of Project Value