

PROPOSAL TO ESTABLISH

**CENTER FOR GEOLOGICAL AND
ENVIRONMENTAL HAZARDS RESEARCH**

Earth Science Laboratory

University of Utah Research Institute
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108
(801) 524-3422



MAY, 1985

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CENTER FOR GEOLOGICAL AND ENVIRONMENTAL
HAZARDS RESEARCH

by

UNIVERSITY OF UTAH RESEARCH INSTITUTE
391 CHIPETA WAY, SUITE C
SALT LAKE CITY, UTAH 84108

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INTRODUCTION

Recent landslides and flooding in Utah have brought to public attention the economic importance of geological and environmental hazards. Hazards problems are on the increase nationwide and pose a growing challenge to society. For instance, Utah is now looking at detailed characterization of over 200 hazardous waste sites; consultants believe that many more sites exist.

Although state agencies have been doing an admirable job in the identification and monitoring of potential hazards, these organizations have neither research nor technology development mandates. There is a definite research need to understand the processes involved in many types of geological and environmental hazards. We not only lack techniques to assess and mitigate most hazards, but we also lack the public awareness necessary to implement measures to prepare for potential disasters. With increased scientific knowledge, we will be able to move from passively monitoring events to active mitigation and education procedures designed to protect life and property. The need for research exists not only in Utah, but throughout the United States. The talent needed for scientific investigations presently resides within Utah's universities and colleges, state agencies and the private sector. What is required is to bring together this talent and coordinate their efforts to solve tough, interdisciplinary problems.

We perceive most geologic and environmental problems to be interdisciplinary in nature in that understanding the phenomena and designing warning and mitigation measures involves the disciplines of earth science, atmospheric science, physics, chemistry, and engineering, among others. In addition, understanding the social and economic impact of hazards requires input from the disciplines of medicine, economics, sociology, and psychology.

PROPOSAL

The University of Utah Research Institute (Attachment A) proposes to form a Center for Geological and Environmental Hazards Research. The purpose of this center will be to organize the talent within Utah's universities, colleges and private companies in order to attract and successfully complete large, interdisciplinary research projects. The Center will work closely with State and Federal agencies to ensure that research results are applied and that problems of highest priority receive greatest attention. The proposed Center will serve four functions: 1) marketing the broad range of talents available; 2) organizing the scientific staff required to complete the research; 3) subcontracting for the research projects; and, 4) managing the projects to their successful completion. This Center will neither compete with ongoing academic research or state agency programs nor seek to control all hazards research. The history of this concept and a list of informational meetings with State and Federal agencies and universities are outlined in Attachment B.

BENEFITS

There are many benefits to the approach proposed here.

- It immediately brings together a pool of scientific expertise to work on complex interdisciplinary projects.
- It establishes a center of excellence which will attract new research monies into the State.
- It provides a full-time management infrastructure for the timely completion of complex projects.
- It will work closely with State agencies to be responsive to State needs.
- It will establish an organization to work on problems which are now

done by out-of-state firms.

- It will spin off commercial products which will add to Utah's industrial base.

PROPOSED MANAGEMENT

The center for will require a strong management to ensure timely completion of deliverables within budget. We propose the management structures shown in Attachments C and D. The Center for Geological and Environmental Hazards Research will be established as a division of the University of Utah Research Institute which will be headed by a Director. We propose Mr. Temple A. Reynolds for the position of Director; his resume is Attachment E. Although directly responsible to UURI management, the Director will be in contact with participating universities at the Vice President level. The Director will be responsible for coordination of the Center's activities with State agencies. He will also assume responsibility for the Program Management, Finance and Marketing functions.

Proposed project management is shown in Attachment D. A Program Manager will be assigned to a project from UURI's full-time staff. This person's principal responsibility will be to ensure that contract obligations are satisfied. The technical portion of the project will be managed by a Principal Investigator who will be from the staff of one of the participating institutions. This person will be assigned on the basis of scientific credentials, and will assemble and coordinate the staff required to complete the project.

PROPOSED BUDGET

Once established, the Center will be financed by fees from successful research proposals. In order to remain competitive, these fees will have to

be kept at a low level. We do require one-time start-up funds for the Center, which we estimate at \$100,000. These funds will be used as seed money to support the full-time director who will be responsible for selecting potential research projects and writing research proposals.

UNIVERSITY OF UTAH RESEARCH INSTITUTE

*SELF-SUPPORTING, NON-PROFIT CORPORATION. NO STATE SUPPORT.

PRESIDENT: JAMES J. BROPHY

SECRETARY/TREASURER: STANLEY H. WARD

TECHNICAL VICE PRESIDENT: PHILLIP M. WRIGHT

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WARREN E. PUGH
ROY W. SIMMONS
DON E. DETMER

*MISSION: *TO ACT AS AN INTERFACE BETWEEN ACADEMIC RESEARCH AND
THE COMMUNITY

*TO ORGINATE AND PERFORM APPLIED SCIENTIFIC RESEARCH

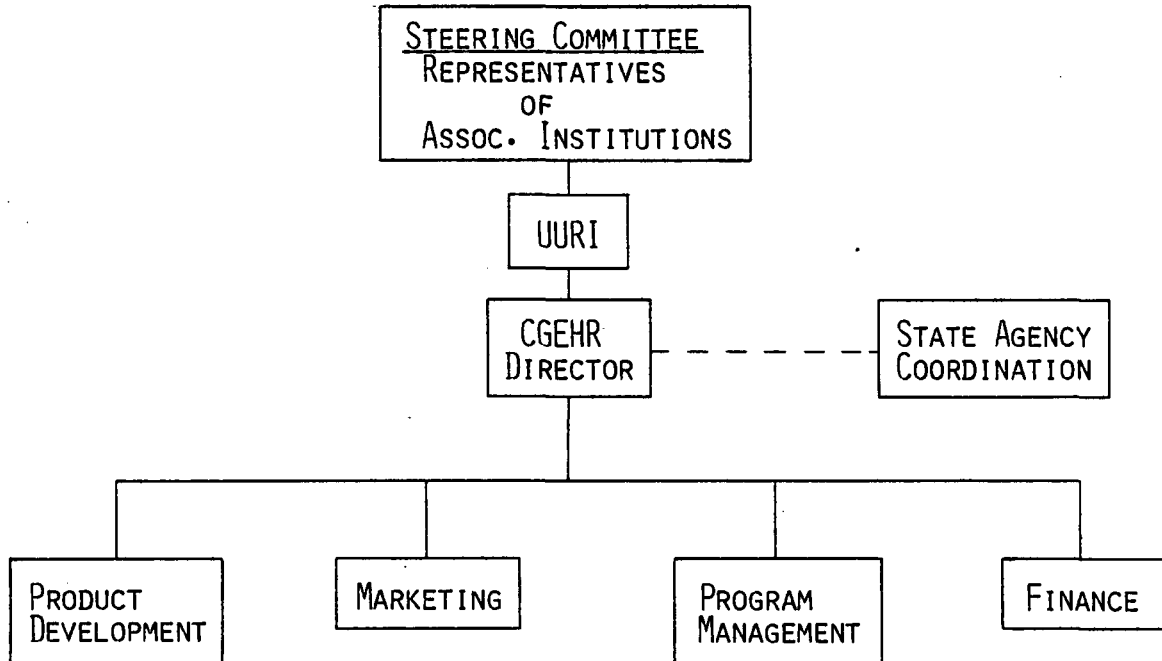
*TO STIMULATE INTERSTATE AND INTRASTATE COOPERATIVE,
MULTIDISCIPLINARY RESEARCH

HISTORY OF CENTER FOR GEOLOGICAL AND ENVIRONMENTAL HAZARDS RESEARCH

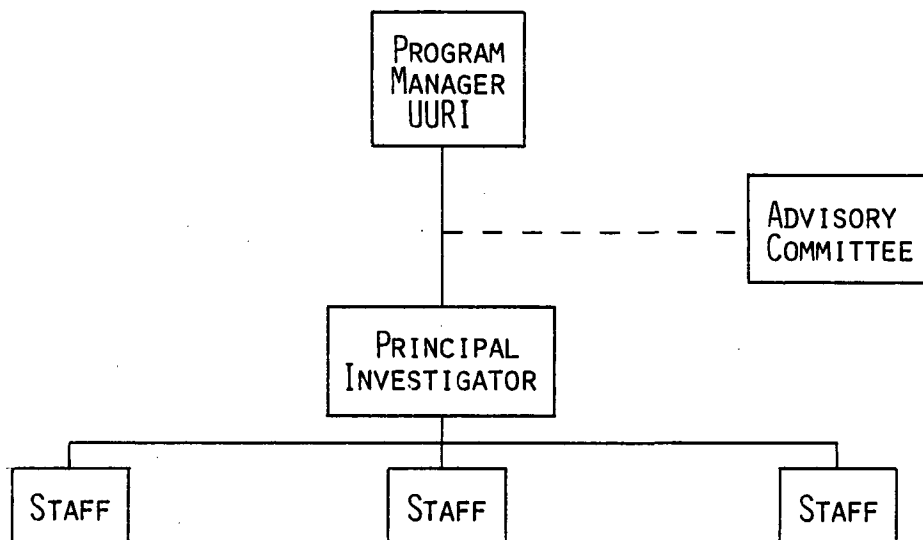
1. CONCEIVED AT UURI LATE 1984.
2. PRESENTATION TO STATE SCIENCE ADVISORY COUNCIL 13 NOVEMBER 1984. THEY ENDORSED CONCEPT.
3. DISCUSSED BY JIM BROPHY WITH COUNTERPARTS AT USU AND BYU. THEY WERE SUPPORTIVE.
4. MEETING ON 6 MARCH 1985 WITH SCIENTISTS FROM UURI, UU, USU, BYU TO DISCUSS CONCEPT. SCIENTISTS WERE SUPPORTIVE.
5. INDIVIDUAL MEETINGS WITH THE FOLLOWING STATE AND FEDERAL AGENCIES IN UTAH TO INFORM THEM OF PLANS FOR CENTER.

<u>PERSON</u>	<u>POSITION</u>
RUTH ANN STOREY	ADM. ASST. TO GOVERNOR BANGERTER
DR. RANDY MOON	STATE SCIENCE ADVISOR, OFFICE OF PLANNING AND BUDGET
DEE C. HANSEN	EXECUTIVE DIRECTOR, UTAH DEPT. OF NATURAL RESOURCES
D. LARRY ANDERSON	DIRECTOR, DIV. OF WATER RESOURCES
ROBERT MORGAN	STATE ENGINEER, DIV. OF WATER RIGHTS
GENEVIEVE ATWOOD	DIRECTOR, UTAH GEOLOGICAL AND MINERAL SURVEY
KEN ALKEMA	DIRECTOR, DIV. OF ENVIRONMENTAL HEALTH
WILLIAM HURLEY	DIRECTOR, UTAH DEPT. OF TRANSPORTATION
TED ARNOW	DISTRICT CHIEF, U.S. GEOLOGICAL SURVEY
ROLAND G. ROBISON, JR.	STATE DIRECTOR, BUREAU OF LAND MANAGEMENT
CLIFFORD I. BARRETT	REGIONAL DIRECTOR, UPPER COLORADO REGION, U.S. BUREAU OF RECLAMATION
ARTHUR J. CARROLL	SUPERVISOR, WASATCH-CACHE NATIONAL FOREST
DANIEL DAKE	DIVISION ADMINISTRATOR, FEDERAL HIGHWAY ADMN.
LEE J. MCQUIVEY	ENG. DIV. REP., U.S. ARMY CORPS OF ENGINEERS
MAJ. GEN. JOHN MATTHEWS	THE ADJUTANT GENERAL, UTAH NATIONAL GUARD

CENTER FOR GEOLOGICAL AND ENVIRONMENTAL HAZARDS RESEARCH
PROPOSED ORGANIZATION



CENTER FOR GEOLOGICAL AND ENVIRONMENTAL HAZARDS RESEARCH
PROPOSED PROJECT MANAGEMENT



Attachment E

Resume of:

TEMPLE A. (TEMP) REYNOLDS
6936 Nye Drive
Salt Lake City, Utah 84121
(801) 942-7725

OBJECTIVE: An assignment in **GENERAL MANAGEMENT** and **ADMINISTRATION** based on successful experiences and a record of growth and accomplishment in these areas. Qualifications include:

Directing a statewide, cabinet level natural resources management agency;

Developing and implementing administrative policies and legislative strategies;

Field level management and supervision of multi-faceted operations;

Analyzing and evaluating ongoing and potential new projects and initiatives for need, cost effectiveness and viability.

BACKGROUND AND EXPERIENCE IN:	Management of Organizations	Public Administration
	Public Relations	Intergovernmental Relations
	Program Planning and Evaluation	Contract Administration
	Writing and Editing	Field Supervision
	Comprehensive Land Use and Development Planning	

BUSINESS HISTORY

UTAH DEPARTMENT OF NATURAL RESOURCES (UDNR), from 1980 to 1985.

Executive Director, UDNR, Salt Lake City, UT., 1981 to 1985.

Total management and administrative responsibility for eight divisions with 1200 employees and \$55 million annual budget. Cabinet advisor to Governor, liaison with State Legislature and Policy Boards.

- Direct development of Project BOLD, a proposal to the Congress to block 3.5 million acres of scattered state lands into manageable units.
- Devise and implement a comprehensive planning system for state park, forest and wildlife lands.
- Direct a comprehensive review and analysis of the need for the multimillion dollar Bonneville Unit of the Central Utah Water Project.
- Restructure Department to increase responsiveness to direction and reduce administrative overhead costs.

