



R O C K Y M O U N T A I N S
C E S U

COOPERATIVE ECOSYSTEM STUDIES UNIT

ANNUAL REPORT FY05

The **Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)**, founded in June 1999, is now a partnership between nine Rocky Mountain universities and six federal agencies. Members of the RM-CESU are the following:

- ❖ **University of Montana-host**
- ❖ **University of Idaho**
- ❖ **Montana State University**
- ❖ **Salish Kootenai College**
- ❖ **Utah State University**
- ❖ **Washington State University**
- ❖ **University of Wyoming**
- ❖ **Colorado State University**
- ❖ **University of Colorado at Boulder & at Denver**

- ❖ **Bureau of Land Management**
- ❖ **Bureau of Reclamation**
- ❖ **National Park Service**
- ❖ **Natural Resources Conservation Service**
- ❖ **US Forest Service**
- ❖ **US Geological Survey**

The purpose of the RM-CESU is to foster a partnership among universities and federal agencies in the conduct of research, education, and technical assistance focused on natural resource, cultural resource and environment issues of the Rocky Mountain states and selected national issues.

Mission

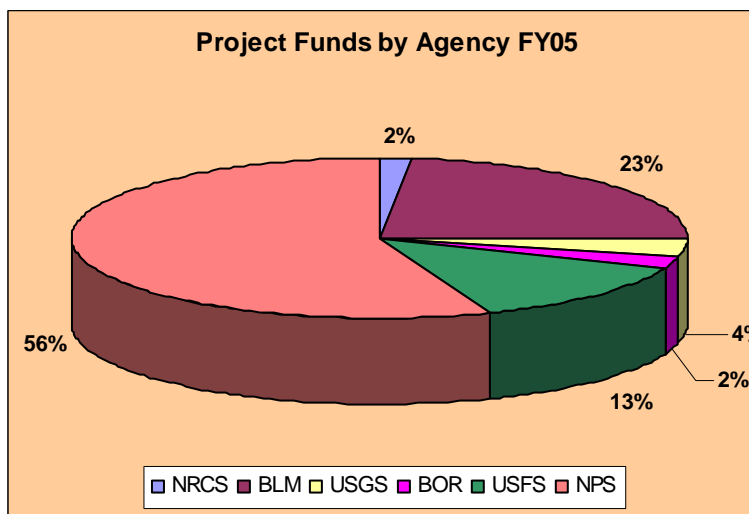
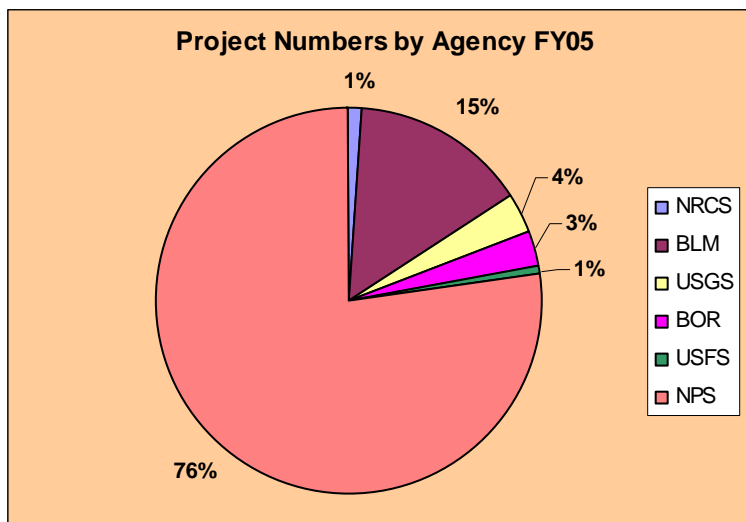
The mission of the Rocky Mountains Cooperative Ecosystem Studies Unit is to improve and disseminate the knowledge base for managing natural and cultural resources in the rapidly changing social, cultural, and environmental landscape of the Rocky Mountain Region, and to extend its expertise to national issues where appropriate.

RM-CESU PROJECTS/FUNDS FOR FY05

Funds obligated through the Rocky Mountains Cooperative Ecosystem Studies Unit in FY 2005 include **\$9,898,054** for **171 projects or continuation of projects**. A listing of all the projects may be found on the attached RM-CESU Project Report FY05.

RM-CESU Total Projects & Funds for FY2005

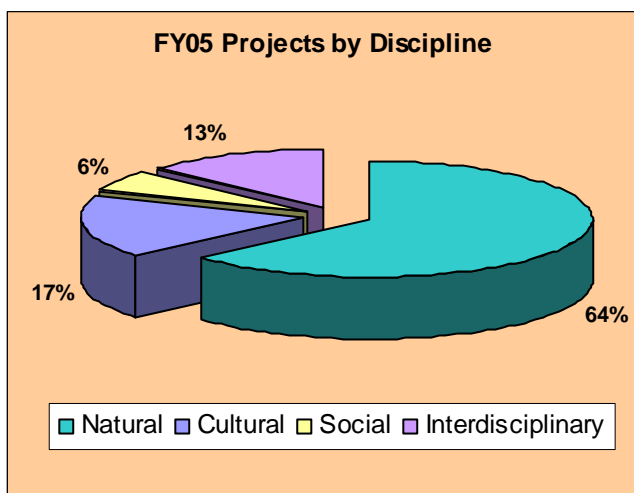
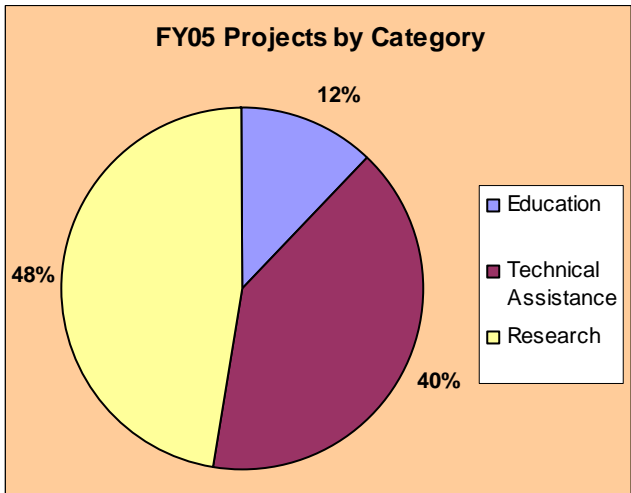
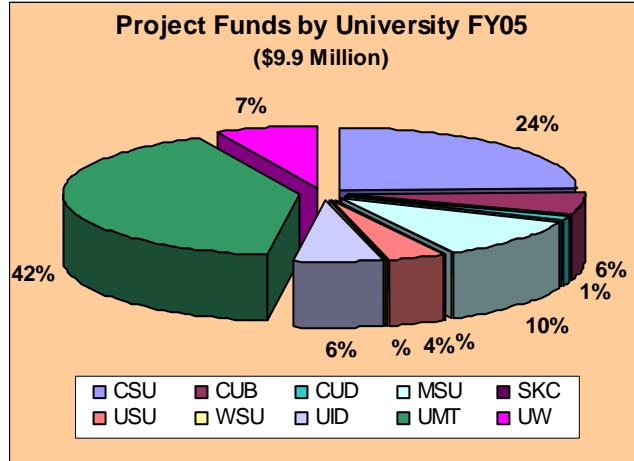
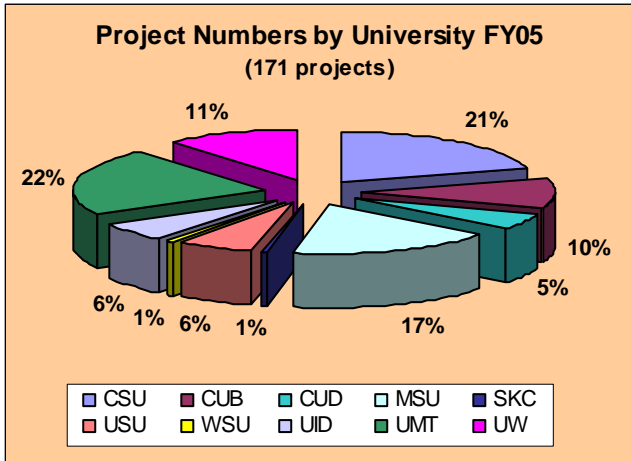
	RM-CESU	NPS	BLM	USFS	USGS	BOR	NRCS
Total	171	132	25	1	6	5	2
Research	81	61	11	1	4	3	1
Technical Assistance	69	54	11		1	2	1
Education	21	17	3		1		
\$	\$9,898,054	5,481,730	2,268,099	1,282,000	398,903	202,322	175,000



Projects and Funds to each University using the CESU Agreement in FY2005

Agency/ University	Total		NPS		BLM		USFS		USGS		BOR		NRCS	
	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$
Colorado State University	35	2,417,297	33	2,398,922							2	18,375		
University of Colorado at Boulder	17	580,534	15	486,166	1	69,500			1	24,868				
University of Colorado at Denver	9	146,699	9	146,699										
Montana State University	29	1,029,085	20	630,913	7	218,631					1	14,541	1	165,000
Salish Kootenai College	1	6,000	1	6,100										
University of Idaho	11	598,977	6	481,616	5	117,361								
University of Montana	37	4,036,011	22	618,869	11	1,856,107	1	1,282,000	2	269,035			1	10,000
Utah State University	12	380,441	10	274,941	1	6,500					1	99,000		
Washington State University	1	10,000	1	10,000										
University Wyoming	19	602,910	15	427,504					3	105,000	1	70,406		

See following graphs on p. 5.



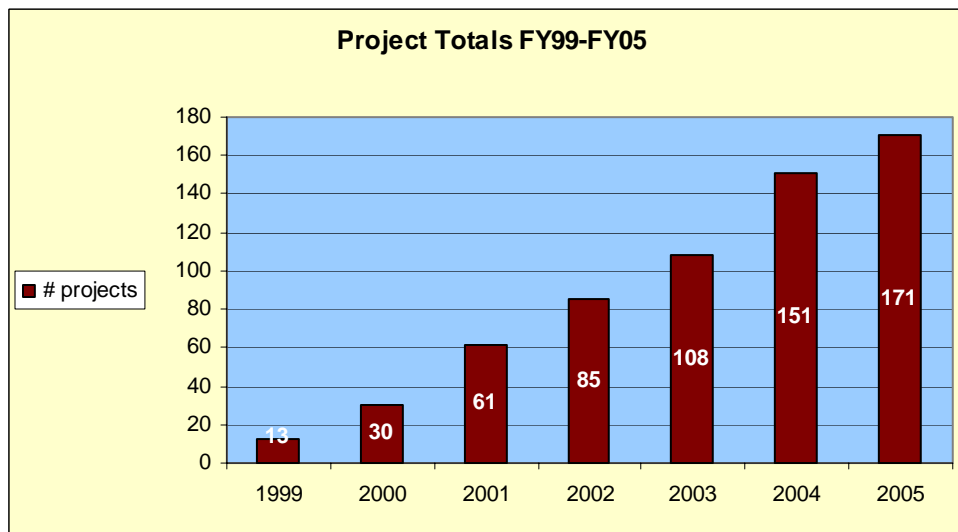
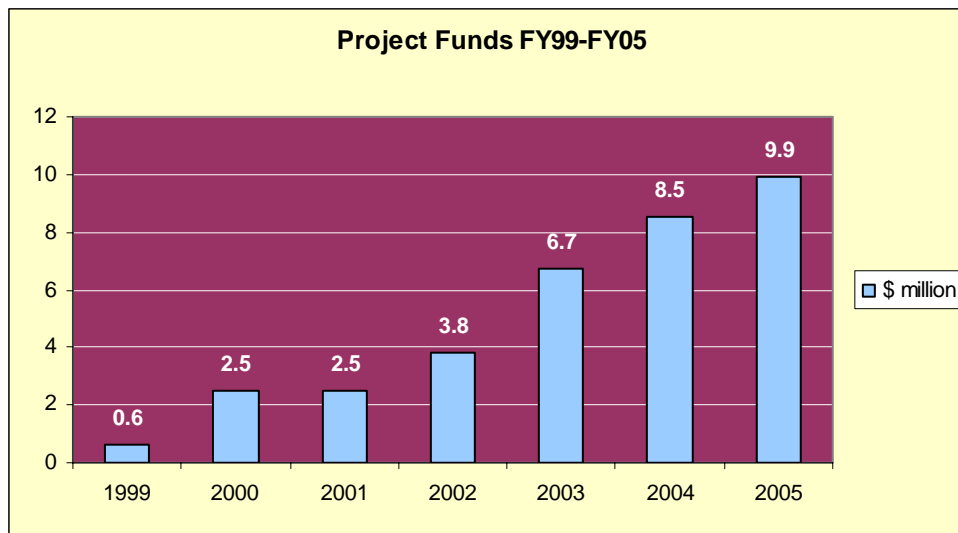
Projects Affiliated with the RM-CESU in FY05, but not using the CESU Agreement

Many additional projects are affiliated with the RM-CESU even through they did not use the CESU protocols to become established. Examples include interagency projects and projects with the RMRS and USGS, which have other mechanisms to move funds to the university partners. The table below does **not** represent all RM-CESU affiliated projects; they only represent the projects that the RM-CESU was able to identify and record.

	University	
	#	\$
RMRS	9	735,351

	Other Agency	
	#	\$
NPS	3	71,190

RM-CESU PROJECT ACTIVITY FY99-FY05



RM-CESU HIGHLIGHTS & ACCOMPLISHMENTS

- March 29-30, 2005: Introduction to Cooperative Ecosystem Studies Unit, University of Idaho & Washington State University.** Representatives from the **Rocky Mountains** (Christine Whitacre and Lisa Gerloff), **Pacific Northwest, and Great Basin CESUs and the CESU National Office** visited the UI campus on Tuesday, March 29th and WSU campus on Wednesday, March 30th. The purpose of the visit was to increase awareness, knowledge, and participation in the CESU. And to help university administrators, faculty, staff and graduate students take full advantage of CESU opportunities.
- CESU National Meeting on June 22-23, 2005 attended by RM CESU representatives:** The CESU Annual Meeting, convened at the AAAS headquarters in Washington, DC, was the biennial gathering of the 17 CESU partners. The Rocky Mountains CESU was well-represented by members from University of Montana, University of Colorado-Boulder, University of Idaho, Utah State University, BLM, BOR, NPS and USDA-FS. Perry Brown, chair of the RM CESU chaired a workshop session on funding opportunities for university members of

CESUs. The Tehabi internship project, an RM CESU sponsored project at Utah State University (and nominated for a national award), was presented to the plenary gathering by Ben Baldwin (USU) and Ben Bobowski (NPS). Plenary sessions included excellent overviews by Gary Machlis, who presided over the induction of two new federal agency partners, National Marine Fisheries Service and the Minerals Management Service. The federal agencies made it clear that the CESUs are an idea whose time has come, and that ecosystem issues are central to every agency's mission. During a panel discussion, the federal representatives presented their natural and cultural resource research needs, along with ideas on social science support needed by the agencies. This meeting served to enhance connections between and among participants (especially during working sessions and during informal meetings), thus reinforcing the communication and collaboration missions of the CESUs.

- **8th World Wilderness Congress:** The 8th World Wilderness Congress met in Anchorage, Alaska for almost 2 weeks from late September into early October, including several pre-Congress wilderness management training sessions and 7 days of plenary and concurrent sessions. The Congress achieved all of its conversation objectives and generated several unexpected results: new protected areas (both native and governmental); new wilderness legislation; increased inter-governmental and organizational cooperation yielding several new initiatives and networks; scores of professionals and volunteers trained in wilderness management, communications, and advocacy; and new funding to safeguard wildlands, wild species and human beings around the world.

The 8th WWC involved 1200 delegates from up to 60 nations, and heavily emphasized the role of native peoples in protecting wilderness and wildlands. The 8th WWC also tackled contentious issues such as the proposed oil and gas drilling in the Arctic National Wildlife Refuge, global warming.

Kathy Tonnessen, the RM-CESU NPS Research Coordinator, and Lisa Gerloff, the RM-CESU Executive Coordinator, represented the RM-CESU at the 8th WWC. The following RM-CESU posters were displayed during Session 11L: Missoula Area Wilderness Forum: Center of Excellence for Research, Education, Training and Citizen Advocacy, Monday, October 3, 1:30 – 3:00 pm:

Rocky Mountains Cooperative Ecosystems Studies Unit National Theme: Wilderness research, technical assistance, and education activities focus on issues necessary to sustain wilderness and wilderness values Tonnessen, Kathy, Rocky Mountains CESU-National Park Service and Lisa Gerloff, Rocky Mountains CESU-University of Montana

abstract: The Rocky Mountains Cooperative Ecosystem Studies Unit (RM CESU) includes a number of Federal resource agencies in the United States and Universities in the Rocky Mountain states. This consortium allows us to tap into agency and university expertise to do research, technical assistance and education in wilderness areas and protected areas throughout the United States. The RM-CESU has facilitated wilderness projects related to natural and cultural resources in parks such as Glacier, Yellowstone and Rocky Mountain.

***Wilderness Stewardship in the Rockies: Let's Talk
A Rocky Mountains Cooperative Ecosystem Studies Unit Workshop on Educating Resource Managers on the Science of Wilderness Stewardship*** Gerloff, Lisa, Rocky Mountains CESU-University of Montana and Kathy Tonnessen, Rocky Mountains CESU-National Park Service

abstract: The Rocky Mountains CESU hosts an annual workshop in Montana that includes managers from the U.S. Federal agencies and university researchers. This informal seminar allows for the exchange of technical information on such topics as restoration in wilderness, exotic vegetation control and visitor use. This gathering allows wilderness managers to exchange real world experiences on wilderness issues.

Salish Kootenai College internship with Glacier National Park
Lapp, Joyce, Glacier National Park

abstract: Each summer the restoration ecologist at Glacier National Park recruits, selects and trains a summer student from Salish Kootenai College, located on the Flathead Indian Reservation. The undergraduate students selected for this internship then work in the park on projects related to native plant collection and propagation,

exotic weed treatment, disturbed site restoration and wildlife monitoring. This allows students to get real world experience with resource management.

Mychorrizaes work at Glacier National Park

Lapp, Joyce, Glacier National Park and Cathy Zabinski, Montana State University

abstract: Several projects involving isolation and identification, as well as collection and propagation of beneficial native soil mychorrizaes have been conducted utilizing National Park Service, RM CESU funds and partnerships between Glacier National Park and Dr. Cathy Zabinski, Assistant Professor of Restoration Ecology from Montana State University. The aim of this on-going work is to understand the value of these soil organisms and to provide optimum growing conditions for subalpine and alpine plant species utilized in restoration work.

Culturally scarred tree study at Glacier National Park

Whitacre, Christine, Rocky Mountains CESU- National Park Service

abstract: The National Park Service, RM CESU funded a project to identify and map culturally scarred trees in Glacier NP, Montana. The Confederated Salish Kootenai tribe (cultural preservation office) is working with the National Park Service to locate trees along traditional trails from the Flathead Reservation into Canada. These "altered" trees were used by Native Americans as directional markers or for food.

Travel simulation modeling: research on changing patterns of wilderness use

Cole, David, Aldo Leopold Wilderness Research Institute

abstract: Computer simulation modeling of recreation use has considerable potential as a tool to assist in wilderness planning and management. This poster describes how simulation can be used, providing a number of case studies

RM-CESU MEETINGS & WORKSHOPS

Meeting	Date	Host	Participating Partners
<p>Federal/University Internship Workshop</p> 	<p>November 9-10, 2004</p>	<p>Utah State University</p>  <p>Ben Baldwin, Utah State University, presents on the Tehabi Internship Program</p>	<p>University: Utah State University, University of Montana, University of Idaho, Salish Kootenai College, Montana State University, Colorado State University, University of Colorado at Boulder</p> <p>Agency: NPS, BLM, USFS-RMRS</p>
<p>Wilderness Stewardship in the Rockies: Let's Talk- Ecological Restoration in Wilderness</p>  <p>Restoration in Wilderness- Should We? Peter Landres, Aldo Leopold Wilderness Research Institute, leads the discussion</p>	<p>January 19-21, 2005</p>	<p>University of Montana's Lubrecht Forest</p>  <p>Erin Law, Nez Perce National Forest, describes wildland fire use in the Selway-Bitterroot Wilderness</p>	<p>University: University of Montana, Salish Kootenai College, Montana State University</p> <p>Agency: NPS, BLM, USFS, USFWS, MT-FWP, Parks Canada</p>
<p>Rocky Mountain Cluster Resources Meeting</p>	<p>February 16-17, 2005</p>	<p>National Park Service</p> <p>CESU Highlight: Bob Moon, Assistant Regional Director, Natural Resources and Science- Intermountain Region, presented monetary awards to Kathy Tonnessen (NPS Research Coordinator) and Christine Whitacre (NPS Cultural Resource Specialist) for engaging both cultural and natural resources with each other and the CESU.</p>	<p>Rocky Mountain Cluster Resources Managers Meetings are held annually and are intended to share resource information among resource managers of member parks. Meetings are attended by Chiefs of Resources from the 14 Rocky Mountain Cluster parks, Kathy Tonnessen and Christine Whitacre (CESU representatives), and Steve Chaney (Superintendent's representative).</p>
<p>Introduction to Cooperative Ecosystem Studies Unit, University of Idaho & Washington State University</p>	<p>March 29-30, 2005</p>	<p>University of Idaho and Washington State University</p>	<p>University: University of Idaho, Washington State University, & University of Montana CESU National Network</p>

			Agency: NPS, BLM, BOR
Rocky Mountains CESU Winter Executive Committee Meeting	March 30, 2005	Conference Call	University: University of Montana, Utah State University, Washington State University, University of Idaho, Montana State University, University of Wyoming, University of Colorado at Boulder Agency: NPS, USFS-RMRS, USGS, BOR
Gardiner Basin Restoration Workshop	April 19-21, 2005	Center for Invasive Plant Management, Montana State University, Sponsored by the NPS (RM-CESU)	University: Montana State University Agency: NPS, USFS, NRCS, BLM
Employee Training Workshop, Devils Tower National Monument	May 27, 2005	Devils Tower National Monument Sponsored by the NPS (RM-CESU)	University: University of Montana (Greg Campbell, Anthropology) Agency: NPS
The Fourth CESU Network National Meeting	June 21-23, 2005	National CESU Network The Tehabi internship project at Utah State University (nominated for a national award), was presented to the plenary gathering by Ben Baldwin (USU) and Ben Bobowski (NPS).	University: University of Montana, Utah State University, University of Idaho, University of Colorado at Boulder Agency: BLM, BOR, NPS USFS-RMRS
Integrating natural and cultural science at Grant-Kohrs Ranch for grade-school science teachers of Powell County, Montana	July 20-22, 2005	Grant-Kohrs Ranch National Historic Site Sponsored by NPS (RM-CESU)	University: University of Montana Agency: NPS
Brucellosis Working Symposium At the workshop key individuals came together from federal, state, academic and private sectors to formulate a Strategic Action Plan. The intent of the Strategic Action Plan is to describe the overarching framework and level of support required to: 1) develop and test enhanced vaccines for safety and efficacy in applications to bison and elk; 2) develop and test safe and effective vaccine delivery options; and 3) improve live-animal diagnostic capabilities in distinguishing seropositive from infected animals.	August 16-18, 2005	University of Wyoming, Laramie, WY Sponsored by NPS (RM-CESU)	University: University of Wyoming, Washington State University, Montana State University Agency: NPS, USGS

Development of Educational Trunks for Community Outreach on the Cultural and Natural Resource Connection within Grand Teton National Park	August 29, 2005	MK Ranch/UW Research Station, Grand Teton National Park Sponsored by NPS (RM-CESU)	
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RM-CESU WORK PLAN FY05

- Hold two Executive Committee meetings **3/30/05 and 10/26/05**
- Finalize “new” Strategic Plan **Final draft approved on 10/26/05**
- Review, discuss, and endorse/drop internship proposal submitted by the Tehabi Program at the Utah State University **Executive Committee voted to drop the internship proposal by the Tehabi Program 3/30/05**
- Coordinate the 4th “Wilderness Stewardship in the Rockies” workshop. Topic: Minimum Tool-Planning to begin in 05 and workshop to take place in 06 **Workshop to take place in 06/07**
- RM-CESU participation in the 8th World Wilderness Congress, Sept. 30 – Oct. 6 in Anchorage, AK **See details in Highlights & Accomplishment p. 7-8**
- RM-CESU participation in the CESU National Network Meeting, June 21-23 on Washington, D.C. **See details in Highlights & Accomplishment p. 6-7**
- Combined RM-CESU outreach visit to University of Idaho/Washington State University, March 29 & 30, 2005 **See details in Highlights & Accomplishment p. 6**
- Initiate discussions with SKC on how to better engage their faculty and students in CESU projects/activities. **Perry Brown, Christine Whitacre, and Lisa Gerloff traveled to SKC on 9/14/05 to continue discussions with SKC faculty (Bill Swaney, Pat Hurley, and Adrian Leighton)**
- Continue to work with federal partners to gather and post their research, technical assistance, and education needs on the website.
- RM-CESU Monthly Newsletter

RM-CESU Executive Committee

Executive Committee is composed of one representative from each RM-CESU partner. The 2005 members of the Executive Committee were:

University Partners:

Perry Brown, Dean, College of Forestry and Conservation, University of Montana, Chair of the RM-CESU Committee

Keith Blatner, Chair, Natural Resource Sciences, Washington State University

Terry Sharik, Department Head, Environment and Society, Utah State University

Pat Hurley and Adrian Leighton, Faculty, Environmental Science Program, Salish Kootenai College

Steven Daley Laursen, Dean, College of Natural Resources, University of Idaho

John Wraith, Department Head, Land Resources and Environmental Sciences, Montana State University

Rollin Abernethy, Associate Vice President for Academic Affairs, University of Wyoming

Mark Williams, INSTARR Fellow and Candice Miller, Director Research and Information, The Graduate School (Boulder)/Michael Holleran, Associate Dean of Research, College of Architecture and Design (Denver), University of Colorado at Boulder and at Denver

Michael Manfredo, Department Chair, Natural Resource Recreation and Tourism, Colorado State University

Agency Partners:

Zach Bowen, Ecosystem Dynamics Science Program Director, USGS Fort Collins Science Center

John Toliver, Deputy Director, USFS Rocky Mountain Research Station.

William Volk, State Soil Scientist, Planning, and Biological Resources, Montana State Office, Bureau of Land Management.

Kathy Tonnessen, RM-CESU Research Coordinator, National Park Service

Jeff Lucero, Bureau of Reclamation

Sheryl H. Kunickis, National Agricultural Research Coordinator, Natural Resources Conservation Services

Other Participants in the Executive Committee Meetings:

Lisa Gerloff, RM-CESU Executive Coordinator, University of Montana

Christine Whitacre, RM-CESU Cultural Resource Specialist, National Park Service