# NPS

**PROJECT SUMMARY**

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| **Cooperative Ecosystem Studies Unit**  **Cooperative Agreement Modification** | | | | | |
| FUNDING AGENCY: **National Park Service** | | | | | |
| MODIFICATION NO.: **[CESU info only]** | | COOPERATIVE AGREEMENT NO.: **1200-99-009** | | FUNDING AMOUNT: $23,000.00 | |
| INVESTIGATORS Contact Information: Louis Bender, Assistant Unit Leader--Wildlife, U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, PO Box 30003 MSC 4910, Las Cruces, NM 88003 ((505) 646-3382), lbender@nmsu.edu | | | | | |
| PROJECT TITLE:Determining movement routes of Rocky Mountain bighorn sheep to and from Sheep Lakes mineral site | | | | | |
| EFFECTIVE DATES**:** May 15, 2003 – March 1, 2005 | | | | | |
| PROJECT ABSTRACT: Bighorn sheep movement routes to/from Sheep Lakes are unknown; however, any of the potential routes forces bighorn to move through large contiguous patches of forest cover. Bighorn habitually avoid timbered areas because limitations of vision, distance from escape cover, and lack of suitable forage increase both risk of predation and physiological stress. The Sheep Lakes mineral site may be important to bighorn, especially ewes and lambs during pregnancy and lactation. However, high visitor use of the interpretive site and Fall River road has resulted in bighorn adopting behaviors that potentially minimize use of the site (Keller and Bender 2002). Movements through dense timber and further human-related disturbance along movement may further limit bighorn use of Sheep Lakes. Thus, it is important to identify travel routes to/from Sheep Lakes, both to identify potential management options to ameliorate impacts on sheep as well as to minimize human encounters. This data is needed to facilitate continued use of the Sheep Lakes site by bighorn and thus both herd-health related benefits as well as recreational benefits associated with bighorn use of, and viewing opportunities at, Sheep Lakes. | | | | | |
| **Agency Representative:**  Ron Hiebert, NPS Research Coordinator  CPCESU  Northern Arizona University  P.O. Box 5765  Flagstaff, AZ 86011-5765  Tel: (928) 523-0877  Fax: (928) 520-8223  Ron.Hiebert@nau.edu | Agency Administration Representative Mary Estep  Budget Assistant  Intermountain Support Office  Denver, CO 80225-0287  Tel: (303) 969-2750  Mary\_Estep@nps.gov | | **Investigator:**  **Louis Bender, Assistant Unit Leader--Wildlife, U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, PO Box 30003 MSC 4910, Las Cruces, NM 88003 ((505) 646-3382), lbender@nmsu.edu** | | **Partner Admin. Contact: NMSU Contact:**  **Patty Hartell**  **Contract Administrator**  **NMSU**  **College of Agriculture and Home Economics**  **Box 3003, MSC 3AGB**  **Las Cruces, NM**  **88003-3003**  **Tel.505-646-1999**  **Fax 646-2301**  patharte@nmsu.edu |
| ***List of Key Words:*** bighorn sheep, Sheep Lakes, travel routes | | | | | |
| ***Agency Manager/Technical Representative from National Park - Include contact information @ Specific Park****:*  Terry Terrell, Research Administrator, Rocky Mountain National Park, 1000 U.S. Highway 36, Estes Park, CO 80517 Ph: (970)596-1282 Email terry\_terrell@nps.gov | | | | | |
| *Annual Report Received:*  *Final Report Received:*  *Publications on File:* | | | | | |
| *This Modification is subject to all the provisions included in the Cooperative Agreement,* ***dated 6/22/99.*** | | | | | |

*Attach any supporting material as necessary.*