Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

 $\textbf{Project Title:} \ \texttt{Research to Support Application of the Visitor Experience and} \\$

Resource Protection Framework at Zion National Park

Type of Project: Research/wilderness social science

Funding Agency: National Park Service

Effective Dates: June 1, 2003 - June 30, 2004

Funding Amount: \$ 16,850

Investigators and Agency Representative: NPS Key Official: Jeff Bradybaugh, Resource Management and Research Division, Zion National Park, Springdale, UT 84767, 435-772-0208, jeff bradybaugh@nps.gov

UNIVERSITY CONTACT: Wayne Freimund, School of Forestry, University of Montana, Missoula, MT 59812, 406-243-5184, wayne@forestry.umt.edu

Project Abstract:

Quantitative surveys will be conducted with backcountry users to measure visitor-based standards of quality for selected indicator variables: 1) trail encounters, 2) camp encounters, 3) trail impacts, 4) campsite impacts, 5) level of trail development/maintenance, and 6) level of campsite development/maintenance. Surveys will be administered to visitors in each of the three primary backcountry zones (transition, pristine, and primitive) and will be administered by a combination of on-site interviews and mail-back procedures during the months of July and August. These surveys will also explore visitor values and motivations and visitor attitudes toward selected backcountry management practices. Values and motives will be measured using standardized scales, and potential management practices will be identified in consultation with park managers and through assessment of management plans.

From May 4 to 15 two field staff will conduct trail survey work and possibly campsite survey work. A second trip is planned during late June or July. With the consultation of park staff, a sample of unsurfaced Park trails will be assessed using standardized point sampling and problem assessment procedures (see research proposal). Indicators such as tread width, incision, cross-sectional soil loss, and tread substrate characteristics will be evaluated and characterized. Additionally, entirely new procedures will be developed, field tested and refined for evaluating trail proliferation and degradation in canyon areas that lack formal or designated trails (e.g., lower Subway). Finally, other terrestrial slot canyon impacts, such as damage to hanging gardens, will be examined to identify and possibly develop and apply impact assessment and monitoring procedures.

An integrated study is under consideration for evaluating visitor impacts related to the feeding of wildlife. This study would develop and employ visitor observation methods to characterize the extent of wildlife feeding and strength of wildlife attraction behavior, apply one or more educational interventions (e.g., a sign or pamphlet), and observe the level of compliance and change in the strength of feeding attraction behavior of the subject population. Study sites need to have animal populations with geographically restricted territories and visitation that can be effectively exposed to educational messages.

Outcomes with completion dates: The Investigators will conduct workshops June 2003 and winter 2004 to report and interpret findings and plan future research.

Keywords: Zion National Park, visitor experience, social science, wilderness

For Administrative use only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: