**NPS**

**PROJECT SUMMARY (DRAFT)**

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| **Cooperative Ecosystem Studies Unit**  **Cooperative Agreement Modification** | | | | | |
| FUNDING AGENCY:  **National Park Service** | | | | | |
| MODIFICATION NO.: **[ insert # ]** | | COOPERATIVE AGREEMENT NO.:**1200-99-009** | | FUNDING AMOUNT: $**29,087** | |
| INVESTIGATORS:  Rod Parnell**928-523-3329 Co-PIs: Mark Manone , Matt Kaplinski, Joe Hazel** | | | | | |
| PROJECT TITLE:**[ insert title ]**    **Monitoring Fluvial Induced Erosion & Deposition of Alluvial Terrace Deposits along the Colorado River in Glen Canyon National Recreational Area using existing daily oblique photography** | | | | | |
| EFFECTIVE DATES:  4/01/00 through 8/01/01 | | | | | |
| PROJECT ABSTRACT:**[� insert short description of project ]**  **The operation of Glen Canyon Dam has altered the pattern of sediment deposition and erosion and directly influences the stability of alluvial terrace deposits along the Colorado River in Glen Canyon.� Terraces provide surfaces for riparian vegetation, recreational camp sites, marsh and wetland developments and preservation of cultural resources.� Maintenance and preservation of terrace deposits in Glen Canyon is a primary adaptive-management objective because this resource is linked to every other element of the riparian ecosystems.� Numerous high-elevation alluvial terraces persist along the Colorado River in Glen Canyon.� The existing river terraces are the erosional remnants of deposition in high-stage eddies by pre-dam flood flows of 100,000 ft3/s or greater.� Glen Canyon National Recreation Area has collected daily photographs taken at three culturally and biologically important sites.� The sites are located within Glen Canyon downstream from Glen Canyon Dam and have been photographed daily since 1992.� The sites consist of terrace deposits which are important features to GCNRA for several reasons: 1) they contain cultural resources; 2) they provide a place for vegetation to establish and develop; 3) the vegetation in turn attracts insects; 4) who in turn attract avian wildlife; 5) the terraces are habitat for avian wildlife and other species.� We propose to photogrammetrically analyze and interpret the existing archived images from the Glen Canyon sites for significant erosional and depositional events.� These events will then be correlated GCD discharges.� This research will contribute to future research by addressing whether GCD flow regimes are having a detrimental effect upon the biologically and culturally important terraces in Glen Canyon?** | | | | | |
| **Agency Representative:**  Ron Hiebert, NPS Research Coordinator  CPCESU  Northern Arizona University  P.O. Box 5765  Flagstaff, AZ� 86011-5765  Tel: (520) 523-0877  Fax: (520) 520-8223  Ron.Hiebert@nau.edu | **Agency Administration Representative**  Lynell Wright  Budget Assistant  Intermountain Support Office  Denver, CO� 80225-0287  Tel: (303) 969-2654  Lynell\_Wright@nps.gov | | **Investigator:**  Rod Parnell  Northern Arizona University  P.O. Box 5765  Flagstaff, AZ 86011-5765  (520) 523-3329  Rod.Parnell@nau.edu | | **Partner Admin. Contact:**  Claudette Piper  Grants/Contracts Contact  P.O. Box 4130  Flagstaff, AZ 86011-4130  (520) 523-1656  Claudette.Piper@nau.edu |
| ***List of Key Words: [Insert key words]*** | | | | | |
| ***Agency Manager @ Specific Park****:* | | | | | |
| *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.*** | | | | | |
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*Attach any supporting material as necessary.*