**NPS**

**PROJECT SUMMARY**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cooperative Ecosystem Studies Unit**  **Cooperative Agreement Modification** | | | | | |
| FUNDING AGENCY:**National Park Science** | | | | | |
| MODIFICATION NO.: **[ insert # ]** | | COOPERATIVE AGREEMENT NO.:**1200-99-009** | | FUNDING AMOUNT: $ **83,725** | |
| INVESTIGATORS Contact Information: **[please list all CO-Pis contact information]**  **David Cooper (970) 491-5430 Co-Pis: Edward Gage , Joyce Cacka** | | | | | |
| PROJECT TITLE:**[ insert title ]**  **Investigating Constraints & Opportunities for Riparian Willow Establishment** | | | | | |
| EFFECTIVE DATES**:[start/end date]**  4/01/00 through 5/01/02 | | | | | |
| PROJECT ABSTRACT:**[� insert short description of project ]**  **There are four primary components to current research. These include: 1) A hydrologic analysis of the study sites in order to determine areas of suitable willow habitat.� 2) A study to determine the date of past willow establishment and the types of geomorphic surfaces that willows established on, stream flow characteristics during the year of establishment, and mode of past willow establishment.**  **3) An analysis of the physical and biological constraints on willow seedling establishment. Specific factors being investigated include depth to ground water, soil texture, propagule dispersal, large ungulated herbivory.**  **4) Determination of where planted rooted and unrooted willow cuttings can occur.** | | | | | |
| **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**  Lynell Wright  Budget Assistant  Intermountain Support Office  Denver, CO� 80225-0287  Tel: (303) 969-2654  Lynell\_Wright@nps.gov | | **Investigator:**  David J. Cooper  Dept. of Earth Resources  Colorado State University  Fort Collins, CO 80523  (970) 491-5430  dcooper@rmi.net | | **Partner Admin. Contact:**  Carmen Morales Sr. Research Admin.  Sponsored Programs  Colorado State University  Ft. Collins, CO 80523  (970) 491-6684  cmorales@research.colostate.edu |
| ***List of Key Words: [Insert key words]*** | | | | | |
| ***Agency Manager contact information @ Specific Park****:*  *Rocky Mountain National 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.*** | | | | | |
|  |  |  |  |  |  |

*Attach any supporting material as necessary.*