Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Develop Ecosystem Conceptual Model(s) for the Greater Yellowstone

Network

Type of Project: Research

Funding Agency: National Park Service, GRYE I&M Network

Effective Dates: May 1, 2002 - September 8, 2003

Funding Amount: \$22,793

Investigators and Agency Representative:

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Project Abstract:

Knowing the condition of natural resources in national parks is fundamental to the National Park Service's ability to protect and manage parks. National Park managers across the country are confronted with increasingly complex and challenging issues, and managers are increasingly being asked to provide scientifically credible data to inform management actions. A long-term ecosystem monitoring program is necessary to enable managers to make better informed management decisions, to provide early warning of abnormal conditions in time to develop effective mitigation measures, to convince other agencies and individuals to make decisions benefiting parks, to satisfy legal mandates, and to provide reference data for relatively pristine sites for comparison with data collected outside of parks by other agencies. The overall purpose of monitoring is to develop broadly based, scientifically sound information on the current status and long term trends in the composition, structure, and function of the park ecosystem. Use of monitoring information will increase confidence in manager's decisions and improve their ability to manage park resources.

The Greater Yellowstone Network Vital Signs Monitoring Network (GRYE) consists of four units of the National Park System: Yellowstone National Park (YELL), Grand Teton National Park (GRTE), John D. Rockefeller National Parkway (JODR), and Bighorn Canyon National Recreation Area (BICA). This task agreement is designed to develop an ecosystem conceptual model for the GRYE Network. A conceptual model is a visual or narrative summary that describes the important components of the ecosystem and the interactions among them. Development of a conceptual model helps in understanding how the diverse components of a monitoring program interact, and promotes integration and communication among scientists and managers from different disciplines.

Outcomes with completion dates:

Two or possibly three conceptual models will be presented as a visual and narrative summary that describe the important components of the ecosystem and the interactions among them. These models will take the form of a "boxes and arrows" diagram, whereby the mutually exclusive components are shown in boxes and interactions among the components are shown with arrows. An addendum will include tables, matrices, and narrative summaries due December 2002.

Keywords: Greater Yellowstone I&M Network, Vital Signs Monitoring Network, Yellowstone National Park, Grand Teton National Park, Bighorn Canyon National Recreation Area, John D. Rockefeller National Parkway, ecosystem conceptual models

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Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: