

Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Greater Yellowstone Regional Traveler and Weather Information System U.S. Highway 89 Project

Project Code: J1571042050, MSU-13

Type of Project: Research & Technical Assistance

Funding Agency: National Park Service

Partner University: Montana State University

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Start Date of Project: August 25, 2004

End Date of Project: December 12, 2010

Funding Amount: \$845,000

Project Summary, including descriptions of products, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report. Also add web sites where project-related information may be found.

The purpose of this project was to develop, implement and evaluate a system to provide necessary information to those who managed and utilized the transportation system along the U.S. Highway 89 (US 89) corridor and other routes in and around the park. The project installed highway advisory radio stations at four of the five entrances to the park, and purchased fifteen National Weather Service receivers tied to low-powered AM transmitters. This system will provide weather and safety-related information in the Park's campgrounds, and perhaps in areas such as Tower Junction. In addition, the park purchased the following portable equipment:

- four portable dynamic message signs,
- two portable dynamic message signs with highway advisory radio,
- one portable highway advisory radio.

Further, the park integrated its traveler information into the 511 phone systems in Idaho, Montana and Wyoming.

A survey conducted to evaluate the traveler information systems indicated the implemented technologies provide useful traveler information to park visitors. The project demonstrated the value of using these advanced technologies to improve traveler information.

Finally, an employee shuttle was implemented between Gardiner, Montana and Mammoth, Wyoming. This service was operated from August 9 through December 10, and provided 2,405 rides. This pilot project provided data that the Park will use in considering whether or not to implement similar services in the future.

A final report titled *Greater Yellowstone Regional Traveler and Weather Information System U.S. Highway 89 Project* is posted on the Western Transportation Institute website at <http://www.westerntransportationinstitute.org/>

Number of students participating in this project: three undergraduates, three graduate students

Lessons Learned from this project.

A champion (or champions) within the organization is important. While there was general support for this project, its objectives competed with other priorities within Yellowstone National Park. Improving traveler information was seen as important, but not critical within the Park, which meant that tasks of the project were not implemented in as timely a manner as predicted.

While many projects provide funding for capital equipment, there is not funding for ongoing operations and maintenance. As noted earlier in this report, one outcome of the project was to purchase and install/implement numerous fixed and portable traveler information systems. However, the project did not provide for funding the ongoing operations and maintenance costs of these technologies. Ongoing issues include having staff that can operate

and maintain the systems.

Traveler information needs to be accurate and timely to be of value. As is true with all traveler information systems, the systems within Yellowstone National Park need to provide current and accurate data to be useful to travelers. This need for accurate and timely data is tied directly to a lack of ongoing operations and maintenance funding, and the staff time available for updating information.

Partnerships can lead to new solutions. In an effort to provide traveler information at campgrounds within Yellowstone National Park, a partnership between the Park and the National Weather Service (NWS) will allow for a low-cost solution. This solution is based on NWS weather radio receivers tied to low-power AM transmitters.