Project Summary Rocky Mountains Cooperative Ecosystems Studies Unit

Project Title: Sustainable Operations and Facility Adaptation, 2015/2016

Discipline: Interdisciplinary
Type of Project: Technical Assistance
Funding Agency: National Park Service

Other Partners/Cooperators: Yellowstone National Park, Montana State University

Students Involvement: Yes

Effective Dates: 9/1/2015 - 3/30/2017

Funding Amount: \$59,789

Investigators and Agency Representative:

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Project Abstract: Yellowstone National Park continues to strive to reduce greenhouse

advancing knowledge and best practices that work in the park's unique setting. Several projects are underway with MSU that have been successful in providing interesting research opportunities and engineering challenges for a variety of student specialties as well as providing Yellowstone with energy management and education tools. This agreement will build upon a previous CESU to partner with Montana State University's department of mechanical and industrial engineering. It will expand tasks, commitment and ongoing projects for the same general scope of work including energy modeling and performance measurement as well as working closely with park staff to measure success for sustainability initiatives and provide innovative solutions for "Greening Yellowstone".

Outcomes with Completion Dates:

Energy monitoring equipment will be procured, installed, and configured by December $31^{\rm st}$, 2015. Data collection will occur no later than January $1^{\rm st}$, 2016 and will continue until Yellowstone National Park no longer has a need to monitor the facilities listed in the Statement of Work. Data analysis will continue through the data collection period and be reported in a final report due on March $30^{\rm th}$, 2017.

Keywords: Sustainable operations, facility adaptation, undergraduate research, Yellowstone National Park, Montana State University