

Project Completion Report

Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Collecting the Intermountain Region's Greenhouse Gas Emissions

Project Code: UCOB-71; J1247100004

Type of Project: Research & Technical Assistance, and intern education

Funding Agency: National Park Service

Partner University: CU Boulder

NPS Agreement Technical Representative

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Start Date of Project: May 1, 2010

End Date of Project: March 1, 2011

Funding Amount: \$29,732.00

Project Summary:

Two undergraduates students from the CU Boulder's Environmental Studies Program, Christina Aalto and Jason Buck, participated in the internship. They both attended the training session, yet Christina was unable to attend the closing session due to family obligations. They traveled to all the identified parks in the project's scope of work, and completed the majority of Climate Leadership in Parks (CLIP) tools and all summary reports for their parks. Christina and Jason were both willing to make changes to their draft summary reports at the end of their travelling which significantly improved the reports. They were knowledgeable, responsible, and considerate throughout the internship. In addition, Jason discovered an error in one of the calculations on the newly revised CLIP tool, and we were able to alert the contractor to make the necessary changes at an opportune time. They were enjoyable to work with, and were both passionate about knowledgeable about sustainability.

The PI and director of the Environmental Center, Dave Newport, was kind enough to offer his time to give a presentation at the training about calculating your greenhouse gas emissions without the CLIP tool, as well as an overview CU Boulder's sustainability work and initiatives. His support was much appreciated, and I hope to have future opportunities in which we can collaborate particularly in the area of communicating sustainability to NPS staff and our visitors.

In reference to the tasks set aside in section III of the agreement the interns fulfilled them according to the list below:

1. Enter data into CLIP (Climate Leadership in Parks) tool
 - a. Water consumption – No, at some parks the interns were unable to collect this information
 - b. Scope 1,2, & 3 greenhouse gas (GHG) emissions updates – Yes, majority have been completed
2. For parks with submetering -
 - a. Identify which meters go with which buildings – Interns identified whether parks had sub-metering or not, and when possible identified which meters went to which buildings.
 - b. Enter information and calculate GHG – N/A
3. For parks **without** submetering – Yes to some extent – interns were able to use FMSS reports to learn more about assets and then record these.
 - a. Look at FMSS location & assets reports
 - b. Check if existing info regarding HVAC, etc is accurate in FMSS – update in FMSS
 - c. Collect information regarding the following: lighting, water heaters, plumbing information, (water consumption where possible), and if interested plug load data
4. Thermography – Jason and Christina received training in thermography, but due to weather and limited FLIR cameras they weren't able to use thermography at their parks. This was in means due to their lack of interest or qualifications, rather to logistics during the summer.
 - a. Take pictures and download to disc for park use
 - b. Meet with facility manager to describe photos
5. Sustainability suggestions – Yes, they develop summaries for each park discuss 'low hanging fruit', the park's best practices, a review of their meeting with park staff, as well as other important photographs and information.
 - a. Look at emissions related to one product which is used across all parks – selected depending on park info / 3 options
 - b. Written suggestions for the park to improve overall sustainability and identify 'low hanging fruit'

The CLIP tools and summary reports have been posted on the following sharepoint site

<http://inpniscsmoss:3000/sites/IMR/sustain1/default.aspx>, and the link has been sent to all IMR parks they visited throughout the summer.