

Colorado Forest Restoration Institute-Colorado State University

FY2010 ANNUAL REPORT

For FY2010, CFRI was allocated \$250,000, allowing it to maintain its current level of capacity to contribute to efforts to restore forest health and mitigate wildfire risks to communities in Colorado and the Southwest. CFRI is called on to work in collaboration with land managers and stakeholders to assess forest restoration needs, monitor the effectiveness of treatments, support and assist collaborative forest health initiatives, and enhance economic opportunities surrounding forest restoration.

This annual report for FY2010 contains information on the following:

- A comparison of actual accomplishments to the goals established for the period. Where the output of a project can be readily expressed in numbers, a computation of the cost per unit may be required if that information is useful.
- Reason for delay if established goals were not met.
- Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

We were successful in delivering on a vast majority of the deliverables stated in the FY2010 work plan. Explanations are provided for changes or incomplete deliverables. A federal financial report has been submitted separately by the Office of Sponsored Programs at Colorado State University to the Southwest Regional Office.

Project 1: Connecting science to stewardship

Project components:

- Work with researchers across institutions on an ongoing basis to inventory of recently completed and ongoing research of relevance to managers.
- Communicate with land managers to assess their information needs and questions about forest restoration and wildfire mitigation treatments.
- Produce written products, such as research synthesis reports, white papers, and bulletins to transfer current research to managers.
- Co-convene face-to-face meetings between researchers, managers, and public stakeholders on all aspects of restoration and wildfire mitigation projects.

Proposed Project Deliverable

A research-to-management outreach initiative that will include 2 researcher-manager workshops to identify overlaps in forest science research and restoration or wildfire mitigation management needs

Actual Project Deliverable

1) October 21-22, 2009: Workshop entitled, "Mixed conifer forests in Southwest Colorado: a summary of knowledge and considerations for restoration and management", Pagosa Springs, CO. Eight-two individuals from federal, state and local government agencies,

	<p>academia, non-governmental organizations and private sector firms participated.</p> <p>2) July-September, 2010: A series of three discussions involving academic and RMRS scientists and Regional Office leadership concerning post-mountain pine beetle lodgepole pine forest development trajectories, issues and concerns, and management considerations.</p>
<p>Between 2 to 4 field-based workshops for various types of stakeholders; including short courses on multi-party forest condition assessment and effectiveness monitoring; on-site visits and training, including how to discern historic conditions frequent in-field sessions with individuals and small groups, and linking together opportunities for biomass utilization that correspond to the scale of ecologically-viable treatments and community support; and routine engagement with large groups to foster stakeholder interests in forest health and restoration.</p>	<p>1) August 20-21, 2010: Field crew and volunteer training and field-testing multi-party baseline monitoring protocols for Uncompahgre Mesas Forest Restoration Project. Twenty-seven individuals from the Forest Service and local communities participated.</p> <p>2) Restoration and fuels reduction treatments in mixed-conifer forests in southwestern Colorado, October 22, 2009. Approximate 60 individuals federal, state and local government agencies, academia, local community, non-governmental organizations and private sector firms participated.</p>
<p>At least 2 written reports and products summarizing recently completed or current research that managers have identified as being relevant to their restoration and wildfire mitigation work</p>	<p>1) Mixed-conifer forests in Southwestern Colorado: a summary of existing knowledge and considerations for restoration and management (April 2010). (Posted on CFRI website, "Publications and Reports" page)</p> <p>2) Some ecological considerations regarding future range of variability of lodgepole pine ecosystems in Colorado and Wyoming (April 2010). (Posted on CFRI website, "Publications and Reports" page)</p>

Project 2: Stewards of Place

Project components:

- Apply university public engagement tradition to applied restoration problem-solving.
- Focus on implementation of the Four Forest Restoration Initiative, with the Ecological Restoration Institute as the lead institute.
- Each Institute leverages its unique expertise to advance problem-solving.

Proposed Project Deliverable	Actual Project Deliverable
A report from an analysis of the approaches used to develop strategically located	Deliverables produced by Ecological Restoration Institute, Northern Arizona

ecological restoration treatments that simultaneously restore forest health and reduce the risk of unnatural fire.	University
A document describing the design for landscape restoration handbook --an illustrated guide describing decision support information approaches and lessons learned useful in collaborative, place-based restoration workshops and agency trainings.	Deliverables produced by Ecological Restoration Institute, Northern Arizona University
A document describing a design of an adaptive management approach that includes ecological and social monitoring of restoration treatments on a landscape scale.	Deliverables produced by Ecological Restoration Institute, Northern Arizona University

Project 3: Collaborative monitoring and adaptive management

Project components:

- Provide leadership for collaborative forest health initiatives around the state to design and manage monitoring and adaptive management protocols involving land managers, community residents, and stakeholders.
- Develop monitoring indicators and measurement protocols for both ecological and socio-economic questions of interest.
- Compile and analyze evidence field managers already collect.

Proposed Project Deliverable	Actual Project Deliverable
Monitoring indicators and measurement protocol guide for the Woodland Park Healthy Forest Initiative, the Uncompahgre Mesas Forest Restoration Project, and the 10-Year Stewardship Contract for the Front Range Fuels Treatment Partnership.	Completed: "Evidence-based collaboration: ecological monitoring of Colorado's forests for citizen scientists" report, which serves as the protocol guide for the listed projects and additional projects. (Posted on CFRI website, "Publications and Reports" page)
Two case study reports on the collaborative monitoring projects of the Woodland Park Healthy Forest Initiative and Uncompahgre Mesas Forest Restoration Project, focusing on lessons learned and implications for adaptive management.	Completed: Social analysis of public perceptions of the Woodland Park Healthy Forest Initiative, presented to the WPHFI executive committee July 2010. (Posted on CFRI website, "Publications and Reports" page) Pending: Data analysis for the collaborative pre-treatment monitoring for the Uncompahgre Mesas Forest Restoration Project have been completed. Reports are being drafted as of January 31, 2011. The UP Mesas report will be completed February 11

	Not completed: Report for the Woodland Park Healthy Forest Initiative due to lack of collaborative monitoring effort. Pre- and post-treatment monitoring data was collected and analyzed for two treatment areas. Final data report estimated completed by March 1, 2011.
Summary analysis of ecological impacts of forest restoration and wildfire mitigation treatments on the San Juan National Forest.	Completed: Report: "The effect of tree harvesting on soil resistance to penetration (compaction): BioFuel project, Pagosa Springs Ranger District, San Juan National Forest, Colorado." (Posted on CFRI website, "Publications and Reports" page)
One peer-learning workshop involving managers and stakeholders to share lessons learned, successes, and barriers. This will be developed in conjunction with the ERI and NMFWR, to cultivate cross-state experiences, lessons, and analyses.	Not completed: With the selection of projects for the Collaborative Forest Landscape Restoration Program, the Southwest Ecological Restoration Institutes have decided to focus a peer-learning monitoring workshop involving the CFLRP projects planned for 2011.

Project 4: Making Restoration Economics Work

Project components:

- Continue to partner with the Colorado Wood program of the Colorado State Forest Service to identify and overcome the economic factors that currently constrain the development of the sector as a contributor to long-term forest restoration and wildfire mitigation treatments.
- Provide assistance via phone, face-to-face visits, short courses, and the publication of working papers.

Proposed Project Deliverable	Actual Project Deliverable
Convening at least one "making connections" workshops that bring together operators, producers, and purchasers of wood products in Colorado.	Conducted a Forest Business Workshop designed for small forest and wood products businesses, owners, operators, and producers. The information centered on a business workbook providing guidelines for successful business practices and marketing.
A variety of stakeholder outreach/engagement, including consultations on the phone and in person, and between 2-4 workshops on opportunities for sustained utilization of woody biomass.	Provide ongoing technical and businesses assistance in the form of email, phone, and one-on-one requests. Conducted a week long Wood-to Energy Woody Biomass Utilization Short Course that explored the technology, feasibility and opportunities for woody biomass utilization.

Conduct a spatial analysis of wood users and producers in Colorado.	Conducting ongoing community supply plans including biomass supply plans for Jackson and Park county.
Develop a feasibility process quick guide that identifies which supply factors need to be considered when looking at woody biomass utilization and renewable energy applications. This complements the report and fact sheets being developed under ERI's Project 5, and economic analysis developed under NMFWR's Project.	Conducted a week long Wood-to Energy Woody Biomass Utilization Short Course that provided information and templates which assists in the identification of supply factors when considering utilization of woody biomass. Short course presentations were provided to attendees and as requested.

Materials for all deliverables under this project available upon request to Amanda Bucknam (amanda.bucknam@colostate.edu)

Project 5: Supporting forest restoration collaborations

Project components:

- Work with collaborative forest health groups to plan, implement, and monitor restoration and wildfire mitigation projects by providing syntheses of current science and best management practices, and technical assistance and support.
- Develop more of a network among the collaborative groups; develop a higher profile for state-wide issues faced by the collaboratives; provide educational and training opportunities; and help them meet goals of long-term information storage, retrieval, and application.
- Assist the Colorado Forest Health Advisory Council to maintain a process through which to coordinate and communicate with the various local and regional forest health and wildfire mitigation collaborations in the state.

Proposed Project Deliverable	Actual Project Deliverable
A third semi-annual workshop in Spring 2011 to convene the collaborative groups from across the state, including a full day education session on tools needed by collaborative groups (such as financial development, or whatever topics the groups ask for).	Completed: April 19-21, 2010: Conference entitled, "Beyond the bugs: the future range of variability of communities and forest landscapes," Steamboat Springs, CO. Eighty individuals from federal, state and local government agencies, academia, non-governmental organizations and private sector firms participated
Summary lessons learned reports from CFRI's involvement in collaborative forest health initiatives across the state, i.e., Colorado Bark Beetle Cooperative (Arapaho-Roosevelt, Routt, and White River national forests), Ponderosa Pine Project (San Juan National Forest), Uncompahgre Mesas Restoration Project (GMUG National Forest), Woodland	Completed: Collaboration case studies for both the Uncompahgre Mesas Forest Restoration Project and the Woodland Park Healthy Forest Initiative. (Posted on CFRI website, "Publications and Reports" page)

Park Healthy Forests Initiative (Pike-San Isabel National Forest), among others.

A database developed by CFRI for long-term storage and use of information collected and stored initially by collaboratives.

Database architecture has been developed, but the website is not yet “live.” The website is based on invasive plant species citizen science and monitoring projects. Delays were experienced due to problems creating new data formats for forest overstory and understory monitoring plot design. Assistance is being provided by the Natural Resource Ecology Laboratory at Colorado State University.

Colorado Forest Restoration Institute personnel:

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