

## Ecological Monitoring and Effectiveness Assessment for the Denver Water – U.S. Forest Service Forest to Faucets Partnership

*Progress Report, February, 2018*

### Project Description

The Forests-To-Faucets initiative is a partnership between the US Forest Service and Denver Water to reduce wildfire watershed risks and improve forest conditions across the Colorado Front Range. Over an eleven year period from 2010 to 2021, the partnership will have invested more than \$64 million to conduct fuel reduction and forest management actions on nearly 73,000 acres of National Forest System lands in Denver Water zones of concern.

Beginning in 2016, the Colorado Forest Restoration Institute at Colorado State University has been included in this partnership to quantify the outcomes of fuel reduction and forest management actions. Our results are aimed at creating actionable knowledge for field staff, line officers, program managers, and policy. Our strategy is not to pass judgment on success or failure, but rather to inform learning and enable continuous improvement of effective actions towards achieving desired outcomes.



Using forest science and collaboration, CFRI offers actionable knowledge to groups we work with in the form of locally relevant, locally appropriate, science-informed solutions.

### Science

- We have collected field based measurements of forest structure, fuel loading, and plant community development to evaluate effectiveness on over 1700 acres of planned management using data from 155 field based sample plots across 4 major projects in the South Platte Ranger District.
- We have begun quantifying Forest to Faucet program accomplishments and wildfire risk reduction outcomes on over 7000 acres of USFS fuel reduction treatments completed prior to 2016, using field collected data from 229 field based sample plots spanning Boulder and South Platte Ranger Districts.
- Monitoring is expected to result in an MS Forest Science degree and findings published in peer reviewed scientific journals while meeting deliverables to describe fuel treatment longevity and Forest to Faucet program accomplishments prior to 2016.

## Collaboration

- CFRI worked with the Colorado State Forest Service to leverage their extensive fuels reduction activities on Denver Water owned lands in the Strontia Springs zone of concern to augment our monitoring on federal lands.
- CFRI has directly leveraged more than \$50,000 in additional funding by working with partners at Colorado State University for mutual benefits of supporting graduate student education and efficiently meeting our deliverables.
- Through collaboratively developing sampling strategies with Mikele Painter, South Platte RD Biologist, we added variables to our data collection efforts that better track habitat quality for the endangered Pawnee Montane Skipper butterfly.
- Working closely with Dr. Paula Fornwalt at the Rocky Mountain Research Station and other members of the Colorado Front Range Collaborative Forest Landscape Restoration Initiative, CFRI is ensuring Forest to Faucets monitoring efforts are compatible with current standards and will serve to benefit a wide audience of stakeholders.



## Actionable Knowledge

- Working hand in hand with USFS Boulder Ranger District staff and interested stakeholders, CFRI is integrating lessons learned from other Forest to Faucets projects to improve the planning and implementation of the Forsythe II project.
- Sharing of the latest science and follow up field visits with South Platte RD staff led to rapid feedback and immediate changes to treatment prescriptions that incorporate more effective strategies to accomplish fire hazard reduction and promote resilient long term forest development.
  - Through the Upper South Platte Partnership, we're taking lessons learned from the USFS Forest to Faucets program and helping partners achieve more effective outcomes on non-federal lands in the Denver Water zones of concern.



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