

MINUTES FROM FRONT RANGE ROUNDTABLE Q4-10

QUARTERLY MEETING



Date of meeting: Friday, October 15, 2010, 9:30 – 12:00pm (followed by CFLRP Monitoring Team kickoff meeting)

Location: Boulder County Courthouse, Downtown Boulder, Colorado

Date minutes posted: November 11, 2010

Roundtable contact: Gali Beh, c/o Beh Management Consulting, Inc., 1107 12th St., Boulder CO 80302, 303-499-1576, gali@behconsulting.com

Meeting presentation: http://www.frontrangeroundtable.org/uploads/Roundtable_Q4-10_Quarterly_Meeting_final_101510.pdf

CONTENTS (IN ORDER OF AGENDA TOPIC)

Acknowledgements.....	1
Attendees.....	1
Introduction.....	2
Fourmile Fire First Response.....	3
CSFS Treatment Case Studies—Fourmile Canyon	4
Fourmile Emergency Stabilizaiton Team (FEST)	5
Boulder County Outreach to Landowners since Fourmile	7
Science Research and Living in the WUI.....	8
Working Team Updates	8

ACKNOWLEDGEMENTS

Thank you to Megan Davis and Commissioner Ben Pearlman from Boulder County for hosting the meeting. Thank you also to Chelsea Gunsalus who took notes for these minutes. Finally, a very special thank you to our guest speakers:

- Jay Stalnecker – Fire Management Officer, Boulder County Sheriff’s Office
- Chad Julian – Lead Forester, Boulder County Parks and Open Space
- Therese Glowacki – Division Manager for Resource Management, Parks and Open Space
- Ryan Ludlow– Forestry Education and Outreach Coordinator, Boulder County Land Use
- Deb Martin – Research Hydrologist, USGS Boulder District

ATTENDEES

At the most recent Front Range Roundtable Quarterly meeting in Boulder, Colorado on October 15, 2010, 47 members and guests participated. If you attended the meeting but your name is not recorded in the list below, please send an email to Gali Beh at gali@behconsulting.com.

Table 1. Roundtable Meeting Attendees, October 15, 2010—Boulder, Colorado

Full Name	Organization
Sue Anderson	ARP Foundation
Greg Aplet	The Wilderness Society

Full Name	Organization
Mike Babler	The Nature Conservancy
Gali Beh	Beh Management Consulting, Inc.
Jenny Briggs	US Geological Survey
Jonathan Bruno	Coalition for the Upper South Platte
Glenn Casamassa	US Forest Service, AR
Jessica Clement	Colorado State University
Megan Davis	Boulder County
Rich M. Edwards	Colorado State Forest Service
Leslie Ellwood	US Fish and Wildlife Service
Jonas Feinstein	Natural Resources Conservation Service
Susan Ford	US Forest Service
Paula Fornwalt	US Forest Service
Dan Gibbs	Colorado General Assembly
Therese Glowacki	Boulder County
Adam Greenwade	School of Public Administration and UC Denver
Faye Griffin	Jefferson County
Chelsea Gunsalus	US Forest Service, AR
Joseph Hanson	Jefferson Conservation District
Carrie Haverfield	Boulder County
Eric Philips	Boulder County
Jeff Jahnke	Colorado State Forest Service
Chad Julian	Boulder County
Don Kennedy	Denver Water
Brian Kent	Rocky Mountain Research Station
Kathleen Krebs	Clear Creek County
Dan Len	US Forest Service, AR
Paige Lewis	The Nature Conservancy
Ryan Ludlow	Boulder County
Deborah Martin	US Geological Survey
Mark Martin	US Forest Service
Mike McHugh	City of Aurora
Don Moore	American Planning Association
Ken Morgan	Colorado Division of Wildlife
Aaron Ortega	US Forest Service, PSICC
Ben Pearlman	Boulder County
John Peterson	US Forest Service, PSICC
Claudia Regan	US Forest Service-Region 2
Tonya Sharp	Colorado Division of Wildlife
Irene Shonle	Colorado State University
Jay Stalnecker	Boulder County
John Tighe	Park County
Janelle Valladares	US Forest Service, PSI
Christine Walsh	US Forest Service
Scott Woods	Colorado State Forest Service
Wade Yates	Jefferson County

INTRODUCTION

- Ben Pearlman:** The fire suppression costs for Fourmile Fire are a \$10.5 million effort. All of the help was appreciated and crucial. An event like this fire can completely overwhelm a system. The county has held meetings in fire protection districts and for people who lost their homes, there is an Emergency Aid Center, and a foundation was started with donations. Forest conditions, defensible space and response time matters.

The financial repercussions are substantial and it has required a lot of work to get assistance from FEMA. There are things that can be done as a community, state and nation to make it easier and get better results.

FOURMILE FIRE FIRST RESPONSE

Speaker: Jay Stalnacker, Boulder County Sheriff's Office, Fire Management Officer

- Involved with fire for 15 years with 6.5 years in Boulder County. PowerPoint presentation is available from Jay upon request (jstalnacker@bouldercounty.org).
- Timeline:
 - On Sept. 2 initial pile burning at individual's home. Individual checked it and put water on it. Called dispatch office per County requirements. Sept 6th fire broke, trees started burning. He tried to put it out himself. Rod Moraga, neighbor and fellow firefighters, came to help also. At first, the incident consisted of two fires on either side of the road going in all directions with heavy fuels. A large number of resources began to show up quickly. The fire was too big and erratic for resources to engage. The resources on scene conducted situational awareness and started evacuation plans and road closures. Property was less important than protecting human life. From an incident management standpoint, the priorities are: human life, fire stabilization, and then structure protection. Stalnacker asked to begin delegations of authority. For a short time he was the IC and became part of the Type-3 incident management team (IMT). There was a large response from the local Type 3 IMT (Todd Pechota). They provided the ability to account for personnel. Todd Richardson was the Type 2 IC. The initial team and Type-3 IMT brought a package of preparedness that was helpful in transition. ICP was set up. Public information was a huge asset that was geared up within 3 hours. The public information officers (PIOs) delivered many messages to the public including road closures and evacuation notices. Initially the team called for a 3 mile radius of evacuations. The Type 2 team responded immediately before Type 1 could arrive.
 - Fire spread over 3 days, most fire spread occurred in the first two days. Struggle to get Type 1 organization in place, build situational awareness and provide thorough briefings. Most homes were lost in the first two days.
- Resources included: 150 fire trucks, 200 fire fighters, which included resources from surrounding counties. The system worked as well as it could. Heavy aircraft made a big difference. Fuel breaks can be seen from the air and the pilots could protect homes. Pilots saw treatments from air and used them as anchors. Gold Hill was saved by a wind shift.
- Issues:
 - The attempts to use reverse 911 were interrupted by an alpha (non-numeric) entry in the system, which froze the system. It was fixed within 45 minutes though, once it was identified. Stalnacker requested a Type 1 team upon arrival at the incident.
 - Initially, there was confusion on who was at the incident, fire trucks were running out of fuel, and had to use fire fighters to go in to take food and water to civilians who chose to stay in homes. The fire ran throughout the first night; fire personnel were exhausted and there were a significant number of homes lost. The incident team felt they failed the community and fire departments.
- Post-incident: Focus on what was accomplished (no lives lost), though the issues must be acknowledged. A team is working on what can be done with the land. Work is underway between Boulder County, Fourmile Fire District, Boulder County Mountain Parks and Open Space, City of Boulder, and the Colorado Department of Transportation. Immediate actions include hazard tree removal in county easements which provides the first layer of public safety.
- Lessons:
 - No fire mgmt plan in Boulder County. Development started several months ago, but not complete before incident.
 - The Appropriate Response Strategy (ARS) identified the need to improve initial attack response, better communication and coordination.
 - Boulder County is working towards getting appropriate resources to the fire as quickly as possible.
- **Questions:**
 - **Data about wind directions? Link to fire spread?** Researched RAWs stations, 10 on 6th 7% rh, gusts 40 mph, wind weather and conditions had everything to do with fire. No moisture lately. Set up for fire
 - **Private insurance companies protecting homes, is that a good idea?** Some insurance companies do hire firefighters. The county developed an MOU with one group, which outlined the need for insurance company personnel to be a part of Incident Command System. They worked well within fire the organization. Other resources from insurance companies were not allowed in due to lack of training.

- **Difficulty of getting supplies in to people, should volunteers be training in support capacities?** Fire behavior is crucial before allowing people in there, met with 2 volunteer groups supported by county. There is potential. Have to train.
- **Did any residents stay at homes?** Yes, some folks sheltered in place. The incident team had to dedicate resources to tie in with the people that stayed in place. Some people ran out of supplies (food, water, etc). Some were caught on closed roads.
- **Are there opportunities to train people in advance for what they need to shelter in place?** Part of the Fire Management Plan talks about sheltering in place and providing a place in the community for people to go.
- **Treatments were useful from air suppression point of view - Did fire behavior change due to the treatments?** Treatments were obvious from the air. Zone 1 mitigation is critical: create 20 feet of nonflammable materials around home, lawn furniture and planters would catch fire. Some treatments were too uniform, which created tunnels for wind and fire to run through. In the future, test treatments with prescribed fire.
- **Is there going to be further analysis based on defensible space?** It is difficult to do research on a subject without data prior to the event. No pictures of homes before fire hit, but talking about CWPP using high resolution aerial shots of homes.
- **Without data, how is the county working with FEMA to get reimbursement?** Unsure where go from with a fire management plan. Try to put some ownership back to homeowners to make a plan.
- **Vivid example of what's at risk, no loss of human life...Hearing about bark beetles and the need to mitigate. How can we get the message more clearly to the public?** Forest health and fire mitigation are two different things. Forest health isn't necessarily effective for mitigation around subdivisions. They can be merged, but that has to be addressed in plan. The effort has to be more than aesthetics; it has to be an aggressive effort to protect subdivisions.
- **When fires get going to such a degree, there isn't a lot anyone can do. Mitigation treatments are different, but one of the goals to manage forest is to lower the probability of severe fire events. If a fire is burning so bad, there doesn't seem to be a lot to be done.** Sheltering in place, an option if forest prepared and homes prepared.
- **Ben:** [From what I saw of my tour of the fire sites] stone structures, chimneys and foundations are still standing. Building materials make a huge difference. A large body of work was completed to show what homes were fire wise and if they were preserved.
- **Comments:**
 - **"Don't let public pressure alter emphasis on fire wise."**
 - **More issues to be addressed: Do rules about defensible space need to be changed? Is legislation needed? This incident caused \$270 million insurable losses and \$10 million fire suppression. Front Range Roundtable should potentially be the lead on this to show what needs to be done.**

CSFS TREATMENT CASE STUDIES—FOURMILE CANYON

Speaker: Chad Julian, Boulder County Parks and Open Space

- Ecosystems are dependent on disturbance; fire is a big component of that. Chad saw sites of old treatments in Idaho and RMRS has a report of defensible space, which came out in 2008. Aggressive prescriptions are important. [The Roundtable's] life zones map is used to plan treatments. This fire was in the lower montane. Agency specific forest treatments – can see where to predict wildfire and do treatments ahead of time to prevent. After the Bald Mountain treatments, Sunshine treatment, and Gold Hill treatment, slurry was able to be effective by tying in retardant with highway and treatments. These two mechanisms had to work in conjunction with each other (slurry and treatments). The Sunshine treatment was a community driven project from their CWPP.
- Historic/Current Comparison of Fourmile Canyon area: There has been a significant shift in density since 1860-1890. Burning was high in that same dense area. Canopies promote fire spread. The Bald Mountain treatment was in 2007. Prior to treatment, they mapped pre-settlement trees using photo documentation and model estimation. The forest has filled in because of a lack of disturbance in the ecosystem.
 - Bald Mountain in the 1800s: Basal area - 25 sq ft/acre, 12-15 trees/acre, and canopy cover - 20-25%.
 - Bald Mountain in 2007 pre-treatment: Basal area - 122 sq ft/acre, 275 trees/acre, canopy cover - 72%.
 - Bald Mountain in 2009 after treatment: Basal area - 50 sq ft/acre, 51 trees/acre, canopy cover - 27%.
- The county and CSFS needed to be aggressive to make a difference. A 2007 assessment showed “currently, structures have a 92% chance of exhibiting extreme fire behavior with 99% loss of basal area...a stand-

- replacing event that would be difficult to suppress.” Aggressive treatment is necessary with large openings and clumps of trees with no connectivity to the next clump of trees.
- Comments from neighbors to treatments [from the Daily Camera online comments]: “Obviously they intended to destroy everything, Bald Mountain is an open sore” “far beyond historical renovation”
 - The county held emergency meetings to explain why it was being done. People thought the county and state didn’t know what they were doing and thought they didn’t have to be so aggressive with treatments. We asked them to trust the experts hired and support them during challenges.
 - Today, you can see where the Bald Mountain treatments were effective. The Fourmile Fire didn’t burn into the Bald Mountain treatment, and where it did, it was low severity. Low severity fire is ideal.
 - Gold Hill east: egress route to get out of town. The treatment was effective because the fire didn’t jump the road and left the trees alone. CSFS had patch cutting in the Gold Hill area. See defensible space around homes that were saved.
 - Fire mitigation: light thinning doesn’t break up the fire lines well enough to prevent spread. Clumping trees is important in preventing fire spread. Forest restoration/fire mitigation compared: efforts should be designed for wind events. Thicker stands with fewer clumps would be more effective in prevention. The likelihood of a fire is increasing: fire seasons are getting longer and will change life zones. All fires seen have been human caused this summer. Management must adjust to understand and be prepared for more ignitions, higher treatments, and longer seasons. Treatments have to increase to ensure fewer devastating fires. The RMRS and CFRI are crucial in supporting decisions on where to treat.
 - **Questions?**
 - *The current way of treating seems to create flumes for the fire to spread more, it’s exasperating the problem. Is there a way to sugar coat “aggressive” treatments, can we say “effective” instead?* Yes, we’re engaging in something that is more effective than aggressive.
 - *What’s a good treatment for north facing, Douglas fir in steep slopes?* It is a challenge in this area. Helicopter removal can help, but is expensive. Upper and lower montane interface is difficult to deal with.
 - *Wood straw treatment? Mixing in what’s been burned?* There is only 200 acres worth of wood straw available. Reason for using it: wood straw fibrous material from trees – no possibility of weeds, stabilize soil, wind won’t carry it away as easily.
 - *Is regular mulch ok?* Encouraging people chipping, distribute chips across forest floor, no more than an inch to two inches thick so as not to prevent grass growth.
 - Suggestions: Don’t rush planning phase (not public comment), analysis of data is crucial, make sure it is good data, have clear objectives, and collaborate issues.
 - Ben: significant change in public opinion. The public is starting to think about trees as more than permanent structures. This allows those promoting forest health and mitigation to be more capable in implementing change.

FOURMILE EMERGENCY STABILIZATION TEAM (FEST)

Speaker: Therese Glowacki, Boulder County Open Space

- The Four Mile Fire Emergency Stabilization Team (FEST) had people working the fire itself, at the evacuation center and involved with emergency stabilization.
- Challenges: 60% of the land within the fire perimeter was on private property; the remainder was on Boulder County Parks and Open Space, conservation easements, USFS, and BLM. BLM dedicated an individual to come up to help with the stabilization efforts.
- Post incident tactics:
 - BLM (Emergency stabilization)
 - USFS (BAER)
 - NRCS (Emergency Watershed Protection)
 - State of Colorado (no standard)
 - Boulder County (no standard).
- FEST contributors: Hydrologist, soil scientists, plant ecologists, weed specialists, GIS, Cultural Resource specialist, transportation specialist, PIO, and other assistance.
- The GIS resource created a burn severity maps using infrared, values at risk, slope & potential, treatment recommendations and cost estimates. Most of the burn area was moderate or high severity, which are clumped together into one category. The assessment looked at a 6-year thunderstorm event, analyzing levels of rainfall and what it would do to erode soils. Thunderstorm season ended before the incident started and luckily, snow

doesn't cause high erosion on the soils. 10% area in high burn severity (637 acres) moderate 29% (1775) low/unburned 61% (3772 acres)

- Values at risk: homes, roads, public water supplies, Pinewood springs has a water take out in the area – (have alternative, but important value at risk), and cultural resources mining area with historic structures that survived fire, but these all need to be protected.
- Look at a photo of an area of where no action was taken for soil stabilization: ripped gully in Overland fire area and caused debris flow that can be looked at as a landslide.
- After 1 week, FEST came up with recommendations of what needed to be treated. Seeding was also suggested – seeding doesn't stop erosion within first year and in a thunderstorm event, the grasses will wash away. Seeding prevents weeds from coming in though.
- Emergency stabilization measures, specific recommendations:
 - Aerial mulching (tried many other ways in Boulder County, but they end up being ineffective eventually). Use mulch or wood straw applied aerially over 1800 acres. There is only one manufacturer of wood straw, so the county will primarily use straw mulch. The suggested area is moderate to severe burn areas at slopes of <50%. 70% of the suggested area is on private property. Private landowners are interested in getting something on the ground. NRCS, BLX, USFS, and CSFS put together an easy guide to explain what kind of mulch to use, how thick to spread it, and vendors that sell the appropriate mulch.
 - Most emphasized suggestion: seeding, treating known noxious weed infestation, monitoring for new weed infestations, clear debris from flood-prone channels. Seeding will be done along roads and driveways for primarily weed control. Hopeful it'll help prevent weed infestation and soil erosion.
 - Roads (16 miles maintained, 16 miles unmaintained), increase culvert sizes to help with flows, check culverts more often to make sure they are clear and flowing to prevent added erosion from blocked culverts. Look at outcropping, removing berms, and removing hazard trees (try to move big logs).
 - Hazard tree removal is underway in the less than two miles that had burned along the road.
 - Additional Measures:
 1. Post signs (people need to be aware they need to climb to safety in flood event)
 2. Barrier to physically stop debris flows
 3. Flood warning systems
 4. Reverse 911 for thunderstorm/flooding event
 5. Secure mine openings
 6. Noxious weeds (list A specifies known to be up in the area) .
- Funding: These efforts would cost \$1,700,000 (\$1.6 million in aerial mulching). The county is looking into grants from the Governor's office for watershed protection. NRCS asking for money for emergency watershed protection and can help for all jurisdictions. The BLM and USFS are taking care of their own land. Boulder County is contributing monetarily, coordinating volunteers, and resource support. 600 people signed up to help with restoration.
- Monitoring: USGS was contacted immediately to put plots on the ground to look at streams and erosion. Boulder County transportation is monitoring impacts to roads. Boulder County Parks and Open Space is looking at hazard trees and affected trails.
- Partners for future needs: Private landowners (need permission from 600 landowners to be allowed to do emergency stabilization work on ground – have waiver people can sign, but what about the people who don't get waiver, don't sign it or don't live in the area - concern about how going to accomplish across jurisdictions), NRCS, BLM, USFS, USGS, State of Colorado, Boulder County and Volunteers.
- **Questions/Comments:**
 - *Denver Water did rehabilitation on its lands for \$350-\$400 an acre – aerial seeded, then masticated trees in the area provided mulch and integrated and broke up hydrophobic soils.*
 - *Douglas County: 2 years after the Buffalo Creek fire, they completely lost one county road, twice in three weeks. It only took a 20 minute storm, but it was completely washed out. It took \$20 million to replace. They seeded everything. They used 85% native grass seed. Mulch was the best treatment; hydromulching was the worst treatment (did more harm than good). They had 500 volunteers on weekends to help, bagged grass seed in smaller bags to be used for hand spreading in certain areas, did as much work as possible, even if it was outside of the county, replaced culverts for driveways on private property, installed automated rain gauges, tracked seeding, moved an entire public water system, spent \$300,000 on flood mapping, contracted studies for sediment and erosion.. Met with every resident and created flood plans for every resident. Provided a flood kit for every homeowner to emphasize fact that storms are hazardous and you have to have a plan. No injuries during work.*

Learned a lot from Buffalo Creek fire and 8 years later, they are still working on restoration. They never got a handle on getting rid of burned cars and building materials

BOULDER COUNTY OUTREACH TO LANDOWNERS SINCE FOURMILE

Speaker: Ryan Ludlow, Boulder County Land Use Department, Forestry Education and Outreach Coordinator

- Agency partnerships are crucial; they have been dependant on established partnerships. Formed “Rehabilitation Public Outreach Core Team” and discussed how to provide outreach to those impacted by the fire.
- Priority messaging – standardized responses were quickly developed: danger in hazard tree removal, tree disposal, and erosion control. Identified what agency landowners should call with questions: CSFS (Trees/forest stewardship), NRCS (Seeding, erosion control), Boulder County (rebuilding, septic, wells, debris removal, forestry, transportation/roads, etc). Boulder County is dealing with rebuilding everything.
- The team developed packets: Introductory letter with direct numbers to call and for what, collection of NRCS/CSFS fire fact sheets, and a release waiver form to perform work.
- The team also started developing a plan for outreach: Partnered with Fire Protection Districts (FPDs), the Fire Protection chiefs and, Gold Hill Town Board. They asked fire departments to help determine the best way to reach community. Developed good strategy to reach out to people impacted. People trust information more from the FPDs and those who are an integral part of the community.
- Identified two target audiences – those who lost homes and who had fire impact land had to work with each different.
 - The team scheduled a community meeting for landowners who lost home on Wednesday, October 6. Sent out letters to anyone who lost their home, invited them to the event center, told them the team doesn’t know all the answers and want to work with the homeowners on what issues they are facing and how the team can help. Asked each person at the meeting what they wanted to talk about.
 - Scheduled meetings in each FPD during the week of 10/11-10/15/10: Sugarloaf, Sunshine, Fourmile, and Gold Hill.
- Meeting topics:
 - They knew the meetings would focus mostly on environmental restoration. Talked about the FEST’s team report. The team got positive feedback from the community. There were 80 attendants at the Sunshine meeting, 60 at each of the others.
 - The team informed them that seeding has to occur before next March rather than immediately. Flyers were printed to get out to the community.
 - Multiple other issues rise to the top that aren’t thought of: debris removal, hazardous waste, Fourmile assistance center, wells and septic systems, rebuilding, roads, and environmental rehab.
- The team plans to schedule more meetings.
- Created a Fourmile Fire Resource Guide about wells, septic rebuilding
- Also, established www.bouldercounty.org/fourmilefire - it serves as a clearinghouse to help people go to one place for all the information they need.
- Future plans: Driven by community needs and suggestions. The team wants to know the best way to present information to them (don’t know all the answers), available by phone and e-mail, possibility of on the ground workshops to demonstrate proper treatments, in the field during office hours, additional meetings, volunteer opportunities (train the trainer), forestry groups...
- **Questions/Comments**
 - **Insurance companies?** Some insurance companies have been easy to work with. People are finding they didn’t understand their policy or were under-insured. One of the pivotal catch points is insurance – people have to deal with companies and are getting mixed messages. Some homeowners have been getting what they need and others are battling with companies. Boulder County is trying to provide assistance. The county is trying to help landowners get through the process and get them to resources they need or assist in forming homeowner groups. There doesn’t seem to be a pattern to it. Boulder County may be looked at to take care of things that the insurance company should or cannot.
 - **How soon can a home be built?** Looking at issues, land use regulations being changed, trying to give them more time because they currently have 6 months to initiate rebuilding. With the way the requirements are written now, if homeowners start rebuilding before 6 months, they don’t have to go through plan review, however the county is looking at allowing up to two years instead. The county wants to let people build when they are ready.

SCIENCE RESEARCH AND LIVING IN THE WUI

Speaker: Deborah Martin, USGS Hydrologist

- Three things predict survivability of a space including defensible space, building materials, and luck. Debra and her husband worked to understand mitigation. They got help from CSFS to mitigate hazardous fuels. The building materials (wood with wood siding) of her home were a big cause in the loss of her home. She is using the land on her property to study post-fire science effects. She would like to do collaborations to utilize the science of the unfortunate events. Post-fire erosion is a big concern as well as spread of preexisting infestation of cheatgrass and increases flammability of landscape.
- Mapping – USGS Eros data center did remotely sensed burned severity map. They wanted to provide the best imagery possible and begin to understand rainfall patterns. Trying to plug into networks; they initiated installation of additional rain gauges and are looking at where run off occurs because of erosion. Scientific equipment will show transformation from rain to runoff. This is all part of the debris-flow hazard assessment. The Colorado Water Science Center offered a map that is a prediction of debris flow hazard variability; it looked at historic debris flows. USGS installed water sampling stations, moving quickly to put in a gauge on Fourmile. Collect water above and below burned area to find out what water effects water providers will see. Questions to be answered: How long persist? Particulate or dissolved form? 2 water providers immediately downstream (Pinecreek and Lafayette)
- A multi-agency team is trying to develop tools within WFDSS to help plan suppression activities and post-fire response.
- “RAVE our water” using fire effective water. Look at human health effects. Started sampling ash to understand what’s in ash and how it affects the body. Analyzing larger particles collected.
- Forest Health and Ecosystem studies underway – Jenny [Briggs] has pre-existing plots that burned during fire. Collaboration is necessary to collect post-fire data. USGS is also looking into: impacts on stream communities collecting to understand stream-biotic impacts, mineralogy because of heat transfer, social science to integrate social and ecological sciences, decision support system and integrate into data structure that can be shared. They are trying to get the information readily available to those who can use it.

WORKING TEAM UPDATES

Speaker: Gali Beh, Front Range Roundtable Facilitator

- **Mapping and Implementation**
 - RFI to communities will be sent soon: (released Nov 1, view at: http://www.frontrangeroundtable.org/uploads/Front_Range_Roundtable_RFI_Demo_Community_110_110.pdf)
- **Outreach to Elected Officials**
 - Successful field trip for elected officials held in August in Woodland Park and Boulder County.
 - See presentation for attendee list and photos
- **Biomass Utilization and Slash Sites**
 - Team is helping Jefferson County plan an RFI/RFP for a Department of Energy / Jefferson County biomass utilization grant for feasibility analyses
- **Science and Monitoring**
 - This team will go on hiatus for at least 6 months while most of its members participate on the CFLRP Monitoring Team, which will hold its kickoff meeting following this meeting.
- **Calendar:** The 2011 calendar has not been set yet. Please see www.frontrangeroundtable.com for future updates on the 2011 calendar.