



San Juan Headwaters

FOREST HEALTH PARTNERSHIP

Science Forum Agenda for Friday, February 21, 2020

Science Forum: 9:00 AM – 12:00 PM

Location: Archuleta County Extension Exhibit Hall - 344 US Hwy 84, Pagosa Springs, CO

Networking Lunch: 12:15 - 1:45 at Riff Raff on the Rio – 356 E. Pagosa St.

FORUM NOTES

Featured Speakers

Dr. Peter Brown – Rocky Mountain Tree-Ring Research

Dr. Michael Remke – Mountain Studies Institute

Dr. Tony Cheng, Brett Wolk M.S., Marin Chambers M.S. – Colorado Forest Restoration Institute

FORUM AGENDA

9:00 – 9:15 Welcome and Introductions

- CFRI, Rocky Mountain Tree Ring Research, MSI, Partners, Stakeholders
- *Attendees*
 - Aaron Kimple (MSI), Anthony Culpepper (MSI), Dana Hayward (MSI), Mike Remke (MSI), Marcie Bidwell (MSI), Emily Swindell (MSI), Peter Brown (director RMTRR), Tony Cheng (CFRI), Marin Chambers (CFRI), Brett Wolk (CFRI), Ronny Maez (Archuleta County Commissioner), Jamie Jones (Archuleta County Admin) Ethan Proud (Archuleta County Weed and Pest), Keith Bruno, (Audubon Rockies), Herb Grover (Weminuche Audubon), Darren Lewis (ToPS Parks and rec), Martin Shmidt (ToPS), Andrea Phillips (ToPS Town Manager), Tim Leishman (USFS Pagosa Timber), Matt Tuten (USFS Pagosa Timber), Ros Wu (USFS Pagosa Wilderness), Estevan Vega (USFS Pagosa Resource Assistant), Jimbo Buickerood (SJCA), Tim Haarmann (Banded Peak Ranch), Mercedes Siegle-Gaither (NRCS/CSFS), Jerry Archuleta (NRCS), JR Ford (Clean Forest Energy, Pagosa Land and Cattle, Matt Ford (Clean Forest Energy), Robin Young (CSU Extension), Al Pfister (WEP), Holly Metzler (SOS), Becky Herman (Volunteer), John Porco (Volunteer), Bill Trimarco (WAP), Doug Secrist (Volunteer), Danny Margoles (DWRP), Kyle O’Neil (CSFS Durango), Ann McCoy Harold (Senator Gardener), Gigi Richard (Fort Lewis College Four Corners Water Center), Jordan McMahon (BLM), Joe Reddan (Volunteer, WAP board), Al

Myatt (Volunteer)

- ZOOM mtg participants: Will Buchman (CSU- CLTL)

9:15 – 9:55 Historical Fire Regimes and the Piedra Study (Dr. Peter Brown)

Reference presentation on data and reports page of SJHFHP website

- Methods: the making of historical fire reconstructions
- Historical spatial and fire regime characteristics of the Piedra Area
- Reconstruction applications for management objectives and targets
- *Q&A*
 - *What differences do you see between the Front Range and Southwest Colorado?*
 - Southwest Colorado is more productive with bigger trees and different composition. The Front Range doesn't have as much fir after fire exclusion, but there may be more problems in Southwest Colorado because of the biomass that's built up in both moist and especially dry mixed conifer.
 - *Why 1890?*
 - It's important to remember that this is only a snapshot of the dynamism across the landscape. However, the last fire in the Piedra before exclusion was in 1890 – the end of fire regime characteristics. We also have evidence of forest structure in 1890.

9:55 – 10:35 Monitoring Reports and Analysis (Dr. Mike Remke)

Reference presentation on data and reports page of SJHFHP website

- Introduction to monitoring
- Projects, objectives, methods, results
- Monitoring applications and building monitoring around objectives
- *Q&A*
 - *Regarding wildlife – there should be opportunities to work with other organizations to improve monitoring efforts.*
 - We see that much of the work the Audubon society is doing is key to understanding the wildlife component of forest ecosystems. When integrating other monitoring efforts, we have to be intentional about overlaying new plots with our current efforts so that data can “talk to each other”. Other opportunities include involving students from Fort Lewis and high school students in this work simply because we don't have the capacity to do everything all the time. We're interested in entertaining and growing these opportunities.
 - Overall, we see that there are wildlife, social, and economic component to the work we're doing.
 - *Is there any information about the amount of time, in years, between monitoring periods post-treatment – essentially, how long do we wait to begin post-treatment monitoring to get statistically relevant data about the objectives San Juan Headwaters wants to see?*
 - It depends. We could monitor every year and see large variation, but we're ultimately trying to capture trends. Maybe a NEPA was written to revisit a site in 30yrs, so perhaps we do post-monitoring every 10 years. Maybe we want to know when shrub cover reaches a desirable height, so we revisit plots after 5 years, then 10 years – and at that

point find 50% shrub cover. Altogether, 3 or 5 year post-treatment monitoring would be beneficial to know if we're achieving desired conditions.

- Also, we're not just looking at what's on the ground, but understanding the long-term story of what's happening across the landscape. It's important to ensure the data we collect is looked at and incorporated on different scales.
- *Regarding wildlife – including metrics that relate to wildlife, IE: openings, change in canopy, etc., would be a helpful piece to pull out.*
 - We hear about wildlife a lot. It's an Important social and economic component and we should start thinking about it as a collaborative group.
 - We have a lot of info about wildlife habitat through ecological metrics.
- *65% reduction - soil conservation and watershed*
 - Objectives related to shrub cover quantify what percent of ground is covered by shrubs. Soil erosion concern is real and may be worth monitoring. For example, if on slope and there's a reduction of a given percent of cover, erosional effects may happen. Depending on the study, there might be concern. Maybe 65% was an objective in a given management plan. This is an important conversation to have when planning. Erosion should especially be a talking point if on steep slopes.

10:35 – 10:45 Break

Turning science into actionable knowledge

10:45 – 11:15 Adaptive Management Processes and Case Studies (CFRI)

Reference presentation on data and reports page of SJHFHP website

- Adaptive management cycle
- Case Studies
- The role of CFRI
- *Q&A*
 - *What are some of the main points of disagreement with the Forsythe II Multiparty Monitoring Group?*
 - Lot of contention in the local group is that they don't want any kind of forest management. This means no trees cut for any reason, be it for forest health or wildfire reduction. There's also strong disagreement about how management should happen and particularly surrounding the debate about the wildfire reduction techniques.
 - *How do we start processing and using this, how do CFRIs examples an experience inform us where are our gaps and how do we start mapping that out?*

11:15 – 12:00 Partnership and Stakeholder Discussion

- (Tim Haarman): hunters saying you're ruining this ranch through land management practices with wildfire related goals.
 - When a hunter only hunted a cut management area and got a trophy elk, he became a huge fan and organized forestry tours

- Sometimes we must think beyond just the forestry component and bring in other issues to communicate what we're doing and why it's important
- We do tend to get too focused on forestry and fail to focus on other things.
- How does this apply to the town of Pagosa Springs?
 - Work on Res Hill is great as that area was dangerous for a long time given the tree density and potential for wildfire.
 - Next concern was north face of res hill but based on what I've heard today as opposed to focusing on getting things cleared, having some dense areas compared to others may be okay.
 - SWCC has helped
 - I've gained knowledge here today and have additional resources to continue work on Res Hill. Res Hill is jewel of town.
- Peter: started 2009 with grant writing on CFLRP
 - Tier 1 and Tier 2 monitoring efforts
 - 1 based on CSE of post tx data
 - 2 included birds, wildlife, soils, etc. to be conducted as capacity of availability
 - 2019: are we monitoring the right things, ie erosion. Build those in, know capacity.
 - Don't have to stick with monitoring right now, be adaptable and be able to adjust.
- Jimbo: where we've gone in the last 10 years and looking ahead.
 - Headwaters has paid attention to social infrastructure and conservation of watershed infrastructure and WUI has always been big.
 - Still infrastructure issues we need to take on
 - Seeing the people component
 - Other collaboratives in the area are looking a lot more at the future forest situation and even considering carbon
 - We haven't done as much like that
 - We should look to future forests. We need to look to the longer-term forests and community along with other components and pieces that relate to community.
 - Keep big picture perspective.
 - What are we doing regarding future climate projections?
 - Adaptive Silviculture for CC is helping us better understand mixed conifer stands and potential transitions in our forests.
 - Opportunities to be directly involved in those conversations and use ASCC data, and it's important to consider what do we do with that data and how we interpret it.
 - In the Dolores area we want to encourage ponderosas, and there are interesting questions about PJ forests on Lone Pine.
 - Leaving drought tolerant species
 - What metrics are we interested in, how do we measure on the ground resilience
 - Do we have the right tools to measure our values?
- Communication Strategies (Bill)
 - Need social capital to implement changes
 - A primary goal should be how to translate language of sci into the social fabric and the daily lives of people (like the experience of a hunter)
 - This work has social and environmental impacts.
 - Social structure has changed the landscape more than anything else

over the years, more effort is required to changing social understanding.

- PODS designed around fire risk to a community. We need to converse about is the wildfire risk that PODS highlights, especially in the WUI
 - brining in local fire response
 - think about fire conversation and begin to highlight most at risk areas
- See the bigger picture
 - fire and insect outbreaks are manifestations; trees have survived upwards of 10 fires are being killed by fires today.
 - What we're seeing today is not what ecosystem has seen in last 1000 years.
 - What can we do to affect and mitigate those changes
 - Manage fires, can manage 98% of ignitions across landscape (other 2% blow up, west forks, etc. maybe bc we're so good at managing the other 98%)
 - Maybe other opportunities through integrated fire management that expands options for different kinds of fire to burn on the landscape
 - Consider places where we can let fire burn
 - CFRI spent a lot of time with "tree people", but "fire people" conversations have changed to incorporate how we plan, assess, and monitor.
 - Tools for different entry points
 - Recreation is eating our lunch! How do we adapt to ever increasing forest use? We don't have currently have a framework for how recreation connects to these things we're talking about (ecosystems, fire)
- Engagement and outreach
 - Is MSI working with the CSU department of human dimensions to bring the important social piece back into these conversations?
 - Comes down to capacity issues
 - work with human dimensions does happen, especially on water side involving water/wildfire risk.
 - Broader community outreach and recreation pieces are just coming onto the radar
 - Insights: Front Range
 - Opportunities to unregulated recreation access have happened quickly!
 - People use motorbikes, high power rifles, and atvs to utilize public lands, a potentially unintended consequences of reducing density.
 - Are we ruining the landscape?
 - Opening for access, positive most is on private lands. One of biggest benefits that we hear from private landowners.
 - Relationship to health and water availability affects wildlife, recreation, municipal water
 - we could better educate the general public about how the forest is managed

- Riff Raff on the Rio 356 E. Pagosa St.
- \$20 per participant. Includes appetizers, meal, and non-alcoholic beverages