



# San Juan Headwaters

## FOREST HEALTH PARTNERSHIP

### Science Forum Agenda for Wednesday, April 14 2021

**Thursday, March 11:** 2pm – 4pm

**Location:** Virtual

#### **NOTES for Wednesday, April 14**

**2:00 – 3:00pm** Acting on SJHFHP landscape questions

##### Introductions

1. Dana Hayward (MSI)
2. Aaron Kimple (MSI)
3. Mike Battaglia (USFS RMRS)
4. Robin Young (CSU ext)
5. Steven Hartvigsen (Retired USFS)
6. Marin Chambers (CFRI/CSU)
7. Herb Grover (Weminuche Audubon, Lower Blanco POA)
8. Bob Milford (Pagosa Area Trails Council)
9. Mark Loveall (CSFS)
10. Mercedes Siegle-Gaither (CSFS)
11. Bill Trimarco (WAP)
12. Keith Bruno (Audubon Rockies)
13. Matt Tuten (USFS)
14. Nate Martinez (CPW)
15. Ed Millard (IBCC)
16. Doug Purcell (CPW)
17. Anthony Culpepper (MSI)
18. Marcie Bidwell (MSI)
19. Jimbo Buickerood (SJCA)
20. Jason Lawhon (USFS)
21. Lo Williams (USFS)
22. Michelle Furi (MSI)
23. Emily Swindell (MSI)
24. Michael Remke (MSI, FLC)

##### Opportunities to address our questions on the landscape and in our community

- 1) Possible timelines, important partners and connections
- 2) The WHY of what we do
  - a) Since 2009 this group has committed to actions that are science and knowledge based. By thinking through relevant questions while matching group's value with science processes as a way to support and develop future work and questions, we will be better able to

communicate our work to the public

- 3) What questions do partners have?
  - a) Review of compiled questions and concerns about the SJHFHP landscape from Day 1 breakout sessions
- 4) How do we investigate and act on questions?
  - a) Discussing values and articulating questions advances the scientific foundation and processes of SJHFHP and supports future work
- 5) Values, Questions, Concerns
  - a) Social: aesthetic, recreation, resources/information, connecting science and management, social impacts and license, public communication/dialogue, smoke, WUI, cross-boundary work
  - b) Ecological: wildlife, insects/disease, fire, connecting science and management, WUI, forest products industry, climate change, forest ecology dynamics
  - c) Economic: recreation, fire, WUI, forest products industry
  - d) Social + Ecological + Economic = “Impact Buckets”
  - e) *Comments/Questions*
    - i) *Additions to “Impact Buckets”*
      - (1) *Water and watershed resources/health/quality: all 3 buckets*
      - (2) *Streamflow and soil moisture: all 3 buckets*
      - (3) *Wildlife: all 3 buckets*
    - ii) *Will be important to focus on where topics matter most*
      - (1) *Ranking categories could be implemented, IE: rank values associated with each value within an “impact bucket”, while adding spatial context as well*
- 6) Social questions and concerns
  - a) The highest number of questions and statements had to do with the social and community aspects of forest management
  - b) Social questions and concerns – part 1
    - i) Aesthetics
      - (1) What do we do about slash piles?
      - (2) What could/should our forest look like overall?
      - (3) How do we balance effective Tx and aesthetics?
      - (4) How do we address high visibility areas where treatment is needed
      - (5) What will the end result of forest restoration/management/thinning look like?
    - ii) Recreation
      - (1) How do we manage dead and down trees impacting trails?
      - (2) Is shade a consideration when designing Tx?
      - (3) What about trail closures during Tx?
      - (4) How will Tx alter trails and recreation access?
      - (5) Can we manage forests to be more resilient to recreation pressure?
      - (6) How do we address changes in recreation use in the context of the existing Forest Plan?
    - iii) Fire and smoke
      - (1) How do perceptions and knowledge of fire impact our ability to use it as a management tool?
      - (2) Can we balance putting smoke from Rx fire in the air while addressing community concerns?
    - iv) *Comments/Questions*
      - (1) *Pre/post photos of prescribed fire/treatments?*

- (a) *Some are available, many will be available on Jackson Mountain and more moving forward*
    - (2) *Should have outreach plan for all of the aesthetics, fire/smoke, and recreation*
    - (3) *There are concerns that we can incorporate rather a range of treatments, and include input tied to specific places, IE: shade may be consideration in one place and not any others and knowing where those places are is important for those who write prescriptions.*
    - (4) *Spatial + temporal component important, IE: trail closures, smoke in the air. If public knows a treatment ends soon and is temporary, it is generally more accepted. Can be applied to larger treatments as context can speak to temporal aspect as well as intensity*
- c) Social questions and concerns – part 2
  - i) Resources and information
    - (1) What is the best way to synthesize current research to answer landowner and manager questions?
    - (2) How do we connect researchers and land managers?
    - (3) What other areas have mesic mixed conifer forests and what can we learn from them about restoration practices?
  - ii) Connecting science and management
    - (1) How do we engage in scientific inquiry while participating in a broader dialogue about management applications?
    - (2) What do we do to write and implement management plans based on ever evolving science and research?
  - iii) Social license
    - (1) How can we involve community members in forest management and monitoring activities so they better understand forest and fire ecology?
    - (2) How does visible blowdown impact social license for forestry work?
    - (3) Is our work protecting lives, property and evacuation routes?
    - (4) Can we address that public perception of healthy forests is often at odds with management goals?
    - (5) How do we overcome shock value after Tx?
    - (6) Who cleans up after Tx and on what timeline?
  - iv) Public communication and dialogue
    - (1) Are we effectively communicating the needs and scientific basis for forestry work?
    - (2) Are we communicating that industry is a tool being used to meet project, resource, and ecological objectives?
    - (3) How do we improve landowner understanding of forest ecology?
    - (4) How can we educate the public and involve them in a dialogue about diverse land ownership and forest management objectives?
    - (5) Should we target specific sub-groups for engagement?
    - (6) What means do we use to communicate the processes involved in planning and implementation related to wildlife?
    - (7) What are best practice methods for communicating about land management planning and implementation to the public?
    - (8) How do we bridge ecological and social values?
    - (9) What will the public experience be like?
  - v) *Remember that no action can also be a pro-active management choice. Getting*

*public to understand the why is an important part of this dialogue, IE: the scale and intensity of the 416 Fire important for public to understand*

vi) *Comments/Questions*

*(1) How has communication been done with public in past and is there a budget for that?*

*(a) Yes, there is a changing budget based on different funding streams/sources, which has been challenging in 2020/2021. Headwaters has done tours that are usually open to the public, IE: Jackson Mountain Tour in 2020. Updated plan in progress that outlines how info is shared virtually and in-person IE: Earth Day 2021. Lots of different avenues and events, but always new ways to think about how to engage with key partners.*

*(b) SJHFHP + MSI (fiscal agent and producer/distributor of educational material) = beneficial relationship.*

*(2) Social Media?*

*(a) We do our best, a social media manager would be great*

*(3) Year in Review*

*(a) Education is critical and it can be difficult to ensure everyone has a baseline of understanding of forest ecology principals that are new and changing.*

*(b) This is a slow process, but it's more effective when providing in-person, hands-on experiences, IE: Bridging the Divide, tours, etc.*

7) *Ecological Questions & Concerns*

*a) Ecological questions and concerns*

*i) Wildlife*

*(1) What can wildlife dynamics tell us about forest ecology?*

*(2) How can we plan wildlife and forest management activities so they are mutually beneficial?*

*(3) Does the work we do support suitable habitat for species of interest?*

*(4) Do our EA's address wildlife needs explicitly?*

*ii) Insects and disease*

*(1) Are we reducing SBW and do these Tx impact the prevalence of DF beetle?*

*(2) Can we target trees impacted by pests for removal as part of forest management plans that meet multiple objectives?*

*(3) How do bird populations impact bark beetle and spruce budworm populations?*

*(4) How effective are various Tx against insect pests?*

*(5) How does managing for insects and disease impact implementation?*

*iii) Climate change*

*(1) What will climate change do to our forested landscapes?*

*(2) Does promotion of Douglas fir keep forests more wet, or will they transition to dry mixed conifer?*

*(3) Should we be moving to drier mixed conifer forests and supporting forest adaptation to a warmer, more fire prone climate?*

*iv) Ecological dynamics*

*(1) How do we consider already dead or fallen trees when planning restoration Tx?*

*(2) Is overstory manipulation influencing soil moisture and available water?*

*(3) What if the restoration we're doing now is undesirable in a future climate?*

- (4) Does soil drying hinder regenerative success?
- (5) How many trees do we take? Which trees? Why?
- (6) Do Tx practices advance or exacerbate natural disturbances like blowdown?
- (7) How do forest Tx impact fire ignitions, behavior, and impacts?
- (8) How effective are various Tx against insect pests?
- (9) How much spatial heterogeneity is needed?
- (10) What species composition and mix is most beneficial and on what scale do we decide this?
- (11) What impacts will pile and jackpot burning have in mixed conifer project areas?
- (12) What do we do when forest Tx and projects don't provide the dual benefit of mitigation and restoration?

v) *Comments/Questions*

- (1) *Need to discern 2 things: (1) what is current research and body of scientific literature already present in our geography and (2) where do we need to lead the way.*
  - (a) *(1) Robust literature exists that looks at, for example, how bird and beetle populations interact.*
  - (b) *(2) Are we reducing Spruce Budworm (SBW) Pagosa and Huerto Creeks.*
- (2) *Should figure out where opportunities exist to get community involved as a data-collecting entity, IE: empower trail runners/bikers to maintain cameras in our forests. Let's offer creative outlets to pair education/outreach with data collection and learning.*
- (3) *Connect with retired foresters and ecologists who have the time to be engaged in these conversations, IE: Richard Reynolds (RMRS) has enormous amount of knowledge about what wildlife dynamic tell us.*
- (4) *Large grouping of ecological dynamics could be addressed on the scale of a PhD researcher or by using public as data collectors*

8) Economic questions and concerns

- a) Cross-boundary work
  - i) What will climate change do to our forested landscapes?
  - ii) What impact do perceptions of those who manage/own/use varied jurisdictions have on mixed conifer management?
  - iii) How do we connect smaller private land parcels with larger projects on adjacent and strategically proximal lands?
- b) WUI
  - i) What measures do we take to protect town and adjacent communities from wildfire?
  - ii) WUI and harvest areas are not always the same, how do we plan for them differently?
  - iii) What are we doing to protect homes and infrastructure?
- c) Forest products
  - i) How do we offer flexibility as implementers learn and adapt to changing expectations?
  - ii) What are the best ways to plan treatments while considering wood quality and salability?
  - iii) Why logging trucks?

- iv) Are we able to refine communication and contracting to meeting project goals while making sure Rx are easy to follow for implementors?
- v) How do we keep contractors busy and employed?

d) *Comments/Questions*

- i) *Cost benefit analysis: important to think about where/how we work to have biggest impact.*
- ii) *Focusing on industry that works locally, is well capitalized, and the public trusts is going to provide better outcomes. There is a very small set of people that do this kind of work, and it's important to learn about what they're doing, what they're constraints are, and how to ask better questions.*
- iii) *Need skilled equipment users, but there's a huge investment to train people on multimillion dollar equipment.*
  - (1) *Speaks to the needs of our economy, our community, and where we work. Components of this conversation include logging, small diameter products, and Rx fire, especially in the WUI, which is important for surrounding communities as well – this starts to get into the topic of markets.*

9) Where are there opportunities to address these questions? Do we need additional tools and resources?

a) *Comments/Questions*

- i) *Workforce piece: efforts elsewhere in SW CO focusing on workforce development. We can't do it all, and maybe to move needle on this one we should development relationship with other partners.*
  - (1) *Headwaters can act as conduit and bring these issues to other groups so maybe someday we can have a contractors machinery school here.*
- ii) *Zoom out to determine what our vision is for what these actively managed landscapes will look like in 10, 20, 40 years, then zoom back in to fill in the gaps. Unsure if all the 2021 work happening in forests fits into a vision that people have. An encompassing vision could be a huge with initiatives taking off and might have a better pull to educate people rather than bits and pieces, IE: Pagosa Springs is a fire-adapted community with an active industry that's making progress on ecological issues.*
  - (1) *From a science and monitoring perspectives, we should think about the metrics to signify a resilient community that include the economic, ecological, and social values. Many concept papers published by Tania Schonenagel, Dave McWethy, etc.*
  - (2) *CFLRP has a mandate to include a social, ecological, and economic component to monitoring. Headwaters is already ahead of other groups and this is great opportunity to be on the leading edge of what it means to be resilient and how to use different modalities of knowing to quantify and share stories of resilience.*

**3:00 – 3:50pm** The broader impacts of SJHFHP questions

Desired outcomes for SJHFHP projects in the context of SW CO and Rio Chama CFLRP

- 1) Headwaters group should be proud of work and model served across the landscape and the map (below) speaks to great work collaborative planning and coordination.
- 2) Where does the partnership fit into larger regional initiatives?
  - a. RMRI (Rocky Mountain Restoration Initiative)
  - b. 2 CFLRPs (Collaborative Forest Landscape Restoration Program)



- iii) Rio Chama CFLRP
- iv) San Juan CFLRP
  - (1) Key component to RMRI which will work across entire SJNF
  - (2) Built around grey area that will primarily address Ponderosa pine with some mesic and xeric mixed-conifer, and some on pass for fish habitat especially San Juan cutthroat
  - (3) Offers opportunity to work with...
    - (a) Four Rivers Resilient Forest Collaborative (FRRFC)
    - (b) Dolores Watershed Resilient Forest Collaborative (DWRFC)
  - (4) ...and think about the nexus of forest and water by networking with:
    - (a) San Juan Watershed Enhancement Partnership (SJWEP)
    - (b) Animas River Community Forum (ARCF)
    - (c) Watershed Enhancement Project (WEP)
    - (d) Mancos Resiliency Group (MRG)
- c. The 232 (2 Watersheds 3 Rivers 2 States Cohesive Strategy Partnership)
- d. SWIF (Southwest Wildfire Impact Fund)
- 3) All initiatives and projects offer exciting opportunities paired with a challenging 10 years
  - a. Opportunities:
    - v) Show how strong collaboration + adequate resources can develop a system to make change on the scale of 100,000's acres
    - vi) Have outside person document our work and process, IE: monitoring standards, communication, how we look out for each other and hold one another accountable
  - b. Challenges
    - vii) Capacity
    - viii) Remain in strong lockstep with all other groups to complete work across landscapes
    - ix) Unknown, key considerations that can indicate if we're on/off track to achieving desired success and conditions
  - c. Flip this question: "Where do regional initiatives fit into partnerships?"
  - d. At some point, it will be important to shift conversation with public from what the initiatives are to the initiatives' on-ground accomplishments of and *why* they matter
  - e. Storytelling/dialogue component crucial for:
    - x) Understanding potential accomplishments and possibilities
    - xi) Understanding why it takes everyone, IE: volunteer organizations, federal and state partners, collaboratives, etc
    - xii) Public buy-in
- 4) *Question/Comments*
  - a. *Does this group want to interact with larger, state-wide efforts in the Upper Gunnison, Uncompahgre, Rio Grande, Front Range Round Table OR remain focused on San Juan National Forest?*
    - xiii) *RMRI: all-lands initiative whose boundary overlaps state, federal, tribal, private*
    - xiv) *CFLRP: federal funding focused on US Forest Service lands, but work inherent in program requires additional focus on cross-boundary opportunities on non-federal lands*
    - xv) *This group has always been interested in the connection between forests and watersheds, and would like to continue conversation and maintain contact with neighboring watershed initiatives and group*

Answering place-based questions and communicating broader impacts

- 1) Having local dialogue and constructive conversations regarding issues and concerns is important for

informing larger initiatives, and provides an opportunity to:

- a) Determine how success is measured
  - b) Network the right scientists to inform how we measure our work
- 2) Could be helpful to think about what we want things to look like in 10 years when we no longer have CFLRP funding
- 3) Applicable to all collaboratives:
- a) To avoid getting stretched too thin and/or following any number of “rabbit holes”, it could be helpful to:
    - i) Identify concrete goals
    - ii) Produce immediate, tangible, and meaningful answers/results
    - iii) Build upon results to demonstrate ability to get things accomplished
      - (1) IE: Determine desired conditions, develop questions to see if objectives have been met, allocate resources to accomplish those conditions, revisit questions accordingly

How are we an asset to larger initiatives, how are they an asset to us?

- 1) Headwaters has helped to:
  - a) Inform a RMRI proposal
  - b) Inform 2 CFLRPs
  - c) Grow and inspire the 232 working as part of this geography south into Santa Fe
  - d) Offer input into the SWIF
- 2) All of these projects will come together to help inform the work across the Headwaters footprint

**3:50 – 4:00pm** Wrap up and next steps

Reduce large list of questions down to 2-4 in each “Impact Bucket” (ecological, social, and economic values) so we can demonstrate success

- 1) Dr. Remke and Dr. Bataglia to help in question formulation that can align common topics into something specific and measurable
- 2) Work on bringing a focus to questions while adding a temporal and spatial scale
- 3) Education/outreach to look at Education and Communications plan in context of questions
- 4) Group will continue to consider how our work plays into making regional initiatives a success



