



## DWC Stakeholder Meeting Wednesday, Sept 11, 2024, 1:30-3:30 PM DRAFT AGENDA

*In person:* Dolores Water Conservancy District – [60 Cactus St., Cortez, CO 81321](#) *Virtual:* Zoom info at the end of agenda

### Agenda - ZOOM link below

Time    Topic

**1:30-1:45**        **Welcome Amorina, Introductions, Meeting agreements, Approve/amend agenda**  
-folks shared where they were during 9/11 attacks

**1:45-2:30**        **UPDATES:**

- **Stakeholder Round Robin - updates and topics for future meetings**
- Laurel - PCC: working to start a forestry and fire science program. Oct. 9 - tour at college with forestry and fire professionals invited to check it out. Please sign up if interested.
  - **Interested in PCC - Josh Braun, Kyle Hanson, Alex Handloff**
  - hosting a Wildland Fire Academy, weeklong course where folks are eligible to apply for a red card. October 7-11.
- Nick - USFS - Salter block starting there next week for RX fire. If that goes well, will continue to other two areas. Columbine burned this week. Pagosa next up. Thanks to folks who showed up to Beetle tour. Town of Dolores posted this is a monthly occurrence; but that's not what we are planning though we appreciate public interest
- Jimbo - research on benefits of fire after thinning making a big/positive difference - will disperse article about it
- Danny - full on grant writing season rolling out right now. Wildfire Ready Watershed grant submission. COSWAP round 2 was accepted but contracting is going slow on that - focused on defensible space, thinning work and TREX, and associated planning. Waiting on funding. Just got a BOR watersmart grant yesterday. BOR supports diversion upgrades, smart metering, forestry work. SWCCD pooling projects across their district for BOR funding. Bucket 2 environmental (B2E) (drought mitigation, increasing habitat connectivity) first pot
- Alex - SJHFH - Headwaters regular meeting with field trip to reservoir hill near Pagosa next Friday 9/20 9-1pm. will have food.
  - pursuing Wildfire Ready Watersheds grant - December round
- Derek - Tres Rios - working on Rx burns on Dolores Rim
- Kyle - Timber Age - planning tours, will be presenting at Gates Family Foundation meeting and would like to encourage work of DWC get funded
  - Gates started CO Mass Timber Coalition - they're spending a lot of time on mill capacity, tree species distribution, availability of certain types of material - seems all very related to our work
  - They want a recent and up to date forest inventory. Would like to help connect folks who have recent data - especially related to industry fiber processing capabilities
  - Mass Timber conference...info needed
- Steve - USFS Burn on Dolores Rim- "it burnt real good."
- Nina - met with Pat Seekins (sp?) - logistics on Burro Fire field trip. Scheduled for 10/18. Nervous about snow as issue at that time. Can we do field trip on 10/3 instead? Works for most folks, but not for Tara Harris.
- **Burro Fire FT Date - HOLD October 3 - Agreed to reschedule to 10/3**
- **MixedCon Rx Fire EA NEPA Pre-Scoping**

- Nick - reducing scope on project area, working on updated maps to share out. More focused on dryer lower elevation areas rather than high elevation.
- [Shared Research Folder](#)
- [DWC Notes and Input Mixed Con Rx Fire Working Doc](#)
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- **October Stakeholder Meeting Date - 10/2/24 - stakeholder meeting cancelled due to Burro Fire field trip the next day.**
  - Bruce - we need room to digest what's going on in Burro area. Meeting at later date
  - Nick - not available 10/2
  - Stakeholder meeting as field trip? Stakeholders support this.
  - Meet at Dolores Public Lands Office at 8am and carpool.
  - Jimbo wants map for field trip - Nick intends to get maps out before field trip.
- **WRAP Update**
  - TA Team reviewing RFP responses, we received four excellent proposals
  - Working on proposal, budget, matching contributions and letters of support- grant proposal due 9.30.24
  - Will be convening stakeholders to develop vision and goals for project
- **Forest Water Working Group**
  - [Working Doc Here](#)
  - Meeting Friday 11-12:30. Zoom link here: <https://us02web.zoom.us/j/85969976939>
- **Lizard Head Mesa Acquisition** - The Coordinating Team discussed a request from The Conservation Fund for DWC to write a letter of support for an application to the Land and Water Conservation Fund for an appropriation to purchase the 320 ac Lizard Head Mesa inholding from willing sellers (Dunton Hot Springs) and transfer ownership to the SJNF. The Coordinating Team recommended DWC stay neutral on this topic and defer to Dolores County and others to comment officially.
  - Nick - this is in Brunot agreement land. Opening it to public land would also open it to Brunot Agreement use by the Ute Mountain Ute Tribe. They are in support.
  - Gerrish - Headwaters of Coal Creek - important for restoring CO Cutthroat Trout. Protecting this particular parcel is important either under USFS or NCA. Good rationale for using conservation funds to acquire property. Rico is closest town. Town of Rico supports action to protect that tract of land.
  - Jimbo - supports land exchange. Perfect LWCF use of money for long-term benefits of what DWC is trying to get after.
  - Nina - do we need to have a conversation about submitting a DWC letter of support?
  - Ken - would prefer DWC to sit on the sidelines because of history of Montezuma/Dolores relations. We don't want to step on policy and land use issues of Dolores County unless they directly affect our water. We haven't linked it to watersheds and forests directly so we should sit out as a group and allow individuals to speak up.
  - Robert Meyer agrees with Ken, as does Jimbo
  - Bruce recommends an update to group when we have time.

These items were tabled to make time for snowtopography

- **COSWAP Story Map**
  - Develop with our COSWAP funding for Outreach and Education
- **Haycamp Mesa CSE/OG Working Group** - coming soon to a meeting room near you
- **Upcoming Grants**
  - CWCB Wrap 9/30
  - Onward! 10/15
  - FRWRM Collab Capacity 10/10
  - City of Cortez - due 10/18, WRAP match or general ops
  - Town of Dolores - match for WRAP

- Ballantine TBD
- Laura Jane Musser Fund ? 10/3

**2:30-3:30 SNOWTOGRAPHY** - Presentations by Dr. Joel Biederman of Univ of Arizona and Haley Farwell of Northern Arizona Univ on results from Arizona sites as well as preliminary findings on Chicken Creek site. QnA and discussion to follow.

- Joel Biederman: "Snowtopography and Precision modeling inform forest management to conserve snow water resources for forests and people
  - impacts on snow melting
  - downstream water supply/groundwater resources
  - began snowtopography sites in 2016 - need min 3 years of data
  - How do we use a model trained by snowtopography to predict snowpack and snowmelt at larger scales?
  - Snowtopography bridges spatial and temporal gaps
    - snapshot maps - lidar, UAV, infrequent
    - SNOTEL offer valuable time series but for single points, usually not forested and flat
    - Snowtopography = daily, n~50 per station
      - picks out variability that is lost in SNOTEL
  - How does tree cover affect snowpack?
    - Jimbo question - if we move water from snowpack uplands into reservoir - would reduction in evap in forest be canceled out by reservoir evaporation?
      - Joel thinks that storing water in res is less evaporative than in snowpack in forest due to reservoir depth
    - Ken - how is this data starting to be put into practice? Retaining moisture in forest? Trying to accelerate melting into reservoirs.
      - Joel - goal to make this info available for managers so they have more info about what levers to pull to manage forest for whatever mgmt goals are
      - We want to be able to provide info about a particular enviro that says that if you are a manager you may be able to advance, delay, distribute, concentrate moisture movement. Delaying melting will lead to more snow sublimation. Here's how to move the dial to meet interests of stakeholders
    - Danny - For folks developing prescriptions - how might this kind of info help you and how might you be able to use this info more effectively
      - Bruce short- depends on landowner objectives. If your objective is to fill ponds but keep them through summer - you may try to get snowmelt fast - which might be more thinning or openings
      - If you want to hold as much snow as possible like a ski area, then you may manage for keeping forest more dense so snow stays in shade
      - But there are issues about how fast water comes off
    - Jimbo- more Gambel oak may shade soil more
    - Bruce - but more snow interception before it hits the ground
    - Robert - 30k ft question - We could take this info as a whole forest to manage, but maybe overarching goal/info teased out of this would be what management would best mimic hydrological cycle pre-colonization. If we know that then we could inform management decisions for how we manage the forest
      - Joel - Tribal question of how to conserve what used to be? but climate is different bc snow melts earlier than it used to. We could get the forest to look pre-colonial but we can't get weather to match.
      - Robert - knowledge of previous cycles could help us to manage for a pre-colonial forest that may restore some of the historic patterns
    - Travis - To answer Danny's question. Going forward we are trying to thin forests for fire.

What is optimal basal area for retaining moisture? How can we retain moisture as long as possible in AZ?

- Joel/Haley - soil moisture question: soil infiltration after monsoons. how responsive is soil moisture to monsoons after it has been drying out. Useful question for you?
- Travis - is 50 basal area best? What is sweet spot of basal area for retaining moisture?
- Haley - Chicken Creek as a study site is not large enough to answer that q right now. But hope data can tell us what optimal basal area is for soil moisture/snow water equivalent retention. I worry about scaling this question up.
- Joel - the answer varies based on elevation, structure of trees, aspect, precip. It's important not to over-extrapolate. We don't want to get too far out of the forest/climate/topographic qualities of study site for extrapolation.
  - What's optimal depends on the site and on what the target is.
- Travis - 2023-2024 was a wet year and there was more moisture in thinned stands.
  - Haley - in avg year, thinned areas had the most moisture
- Could ask about spatial arrangement in order to maximize soil moisture. What is optimum spacing and orientation? Can make lots of changes like this without changing basal area.
- Travis - curious about the effect of oak over time on snowpack in Chicken Creek
- Danny - it sounds like we have some test sites depending on snowtopography site results in order to find a sweet spot of tree management for retaining moisture
- Nina - if we were to set up new snowtopography sites can we implement different types of site prescriptions?
  - Joel - 24 sites across CO River basin - but we are missing a mixed conifer site in Mancos area. Missing diversity on patch size, diversity of forest cover. **Being able to have 3-4 different treatment units thinned in different ways would be a wealth of information. We want to know and focus on decision spaces and their bounds in mgmt so that we study sites within the bounds of what our mgmt options are.**
- Nina - sense of tension between sublimation and melting into groundwater. Do you understand variables driving melting v. sublimation?
  - Joel - compare measured snowpack with soil moisture measurements. Also measure rainfall, wind velocity, wind direction, solar radiation, thermal radiation
    - -all the variables we need to understand variations
- Robert - what is your capacity for snowtopography sites
  - Joel - 2-4 sites per year for last four years out of his group
    - We are really interested in expanding the number of sites. About 1 year to plan and implement.
  - Danny - it's hard to find sites with desired variables
  - Robert - what about capacity to crunch data?
    - Joel - need local people to visit sites, maintain sites, read images from each winter
    - DWC area is great because there's lots of collaboration there
    - Joel just hired a post-doc to assemble a snowtopography data site for people to compile that data in one place
- Nina - through your data analysis - does forest mgmt focused on soil moisture compete with forest mgmt focused on runoff?
  - Joel - there's a certain fraction of landscape where that tension exists. But lower elevation forest there isn't as much contribution to stream flow. At higher elevation there may be plenty of water for trees where we can plan for more runoff. Mid-elevation there may be more tradeoff between managing for soil moisture retention v runoff in streams.

- Ken - we've got a long way to go. But we won't get there if we don't continue to gather data

**3:30 Adjourn**

**PARKING LOT** (Future agenda items)

-**Lizard Head Mesa Acquisition** - communicate to stakeholders that we are standing neutral