

Dolores Watershed and Resilient Forest (DWARF) Collaborative Meeting 8

7-6-16, 1:30 - 3:30 at Dolores Water Conservancy District Office

Bruce Short, Derek Padilla, Rich Landreth, Celine Hawkins, Jimbo Buickerood, Norm Bircher, Dave Casey, Aaron Kimple, Pat Kantor, Ken Curtis, Mike Preston, James Dietrich, Greg Kemp, Eric Janes, Rebecca Samulski, Greg Kemp, Eric Janes

Updates

Tour – Becca Samulski gave a brief update on the DWaRF Tour.

The group had a good tour on June 1st. We began identifying key attributes for forest treatments that could guide treatment prescriptions and monitoring plans. We also discovered that the Town of Dolores is pretty well protected from post-fire drinking water supply impacts. The visit to the reservoir brought up many questions about sedimentation patterns around the reservoir. The MWC and Cortez outtake is pretty close to the main reservoir in-flow area, but both drinking water systems have very effective filtration systems for sediment. Though they would be heavily taxed and require more back flushing in the event of post-fire sediment, drinking water could still be reasonably produced.



Fires – Derek Padilla reported on recent wildfire activity

Sage Hen Fire

- Shouldn't be any sedimentation issues, it is far enough from the reservoir, and so far there has been no runoff associated with rain. The forest has received 1.5 inches of rain received over the past week.
- Started in cheatgrass on private lands on the afternoon of June 19th – burned into p-j woodlands - high intensity fire in p-j on public lands.
- Quick response and aviation resources supporting mechanical fire line construction kept this fire at 180 acres.

Long-Draw Fire

- This fire started a few days after the Sage Hen Fire and SJNF chose to manage the lightning strike fire to accomplish 2,300 acres of low intensity surface fire.
- Leaf and needle litter burned. Some 1,000 hour fuels burned, but many were still too wet to be consumed.
- Fire cost came to \$125/ acre, including aerial ignition to help the fire along.
- Managing natural ignitions can accomplish the same benefits of prescribed fires, but because of the unplanned ignition and location, these fires do not have any of the associate planning time or NEPA costs.



- The USFS received no smoke complaints, though smoke did settle in the valleys, and Cortez Dispatch probably received calls.

Both fires in patrol status at time of the meeting

- One start on public with a run toward private lands. Full suppression action was taken.
- Derek would offer a field trip to the Long-Draw along Dolores-Norwood Road, or Pat Seekins will give a presentation on the fire at the next DWaRF meeting.

Cohesive Strategy Dollars – Becca elaborated on the funding announcements made in the last group email.

- \$250K has been allocated to the San Juan National Forest for collaborative efforts, including the two watershed wildfire protection groups, DWaRF and San Juan Headwaters Forest Health Partnership.
- FireWise is anticipating \$40K to coordinate DWaRF over the next year.
- Additional funds are being allocated to FireWise for the regional biomass working group and to Mountain Studies Institute for monitoring, among the remainder of the allocations for collaborative efforts that support better fire outcomes around the San Juan National Forest.

Monitoring program – Funding will go to Mountain Studies Institute which may also support work by Colorado Forest Restoration Institute.

- First determine what the group wants to measure - Changes in modeled fire behavior, forest health, and stream yield? – There are different strategies for stand monitoring vs. landscape scale monitoring
- Monitoring could be more crucial in spruce-fir where less research has been done. What are the overarching goals? What are the stand specific goals? What are the assessment tools? What is different in Spruce-Fir?
- How do changes in canopy reflect water availability?
 - Bruce mentioned the Coon Creek Watershed Study on Medicine Bow.
 - Past studies have shown about 50% canopy cover to have the best water yield.

Budget

Celene asked if there is a budget proposed for the group? Becca has this on her radar and will put a draft budget proposal together to present to the group in August.

Jimbo asked if any of the group had read House Bill 16 1255 – Authorizes state to work with USFS on Good Neighbor Authority projects. This prompted a discussion about how we can tie forest treatment and water supply together. Jimbo is going to look further into the bill, and will circulate his findings. The US Forests have been getting a lot of pressure to pursue Good Neighbor Authority projects. There is one at Lone Cone right now. Becca and Travis Bruch identified a potential Good Neighbor Authority project on the edge of McPhee Reservoir.

CAFA grant - \$250K for work on private and state lands near Joe Moore Reservoir, at the southeastern extent of the DWaRF Collaborative landscape. This could be our first opportunity to identify treatment objectives collaboratively, which will be interesting with a Colorado Parks

and Wildlife and Ute Mountain Ute Tribe component, and we can develop a strategy if there are certain objectives that we can monitor for.

Dolores River Festival – A booth was set up at the Dolores River Festival on June 11th. Thanks to Eric Janes, Celene Hawkins, and Ryan Cox for helping to man the booth. Our presence seemed important and there were a lot of good conversations with residents. A go-fund-me page has been set-up, but Becca will need the group’s help to launch it.



West Fork of the Dolores – Becca was also invited to visit with residents at a meeting for the new fire district up the West Fork of the Dolores. She outreached to residents about mitigation and wildfire preparedness actions they could be taking and introduced the DWaRF Collaborative. She anticipates this visit spurring efforts in this important part of our landscape. She also brought back new knowledge for the Wood Utilization in the WUI workshop in Colorado Springs about what makes a good candidate for biomass heating. The CDOT shop and envisioned fire stations up the West Fork could be great locations for biomass heat projects that would provide a local outlet for utilizing wood from forest restoration activities. Becca asked all members to be thinking about locations for biomass heat projects.

Becca also had a booth for Independence Day in Rico at the fire station. This was good exposure to start raising awareness among Rico residents and fire department volunteers.

A Colorado Watershed Wildfire Protection Group meeting is scheduled for July 28th and 29th in Fort Collins. Southern Rockies Fire Science Network will be paying travel costs for Becca, Aaron, and Bill Trimarco (Archuleta FireWise/Headwaters) to attend.

Assessment Team

The Risk Assessment Team met on June 17th. Brad Pietruszka has made some progress on the mapping and Montezuma County compiled both Dolores and Montezuma County values which Brad now has. Celene was able to track down some spatially discrete wetlands and fens data which will be added as an ecosystem value. Brad will run this model as soon as fire season winds down. (*Better modeling capabilities will be available to re-run the models by Mar. 30, 2017, but we can still run with the existing available model.)

The assessment team discovered that the available “drinking water importance area” data that has been broadly used to represent water quality is actually more closely associated with snow pack and precipitation infiltration areas in the high country. Shauna Jensen will work with the risk assessment team to identify our local drinking water importance areas. The team will still include the water quantity value category, but at a lesser relative value ranking than where water quality had come out as number 1 for the group.

The team also made some further distinctions between values that may be impacted by fire, erosion, or both for the purposes of determining which values need to be included in the fire vs. post-fire risk modeling.

Post-fire modeling – Becca visited with several hydrologists on July 1st in New Mexico, Boulder, and Arizona to explore methods and models for evaluating potential post-fire erosion and debris flow risks. Having an unbiased evaluation of wildfire and post-fire erosion risk to our identified values will enable our group to develop a plan of action for where to focus work in the DWaRF landscape. In New Mexico, the Nature Conservancy is working on model that factors in values at risk with fire and post-fire combined risks. Brad Piehl, with a private consulting firm on the front range of Colorado, has assisted in the development of 14 post-fire risk evaluations and submitted a comprehensive proposal of what he could help us with including erosion and debris modeling and identification of “zones of concern.” The estimate is anywhere from \$20,000-\$50,000 depending on the level of support from JW Associates. Shauna Jensen was able to participate in the call with hydrologists in New Mexico that she has worked with in the past. They are developers of the AGWA model which is being used for post-fire recovery evaluation (Burn Area Emergency Response). It evaluates anticipated change in runoff and sediment load based on soil burn severity, slope, and soil characteristics. This model does not add impacts of debris flows, but is a simple way to evaluate areas that are prone to increased erosion.

Brad Piehl also visited the San Juan Headwaters Forest Health Partnership at their last meeting. San Juan Headwaters is also interested in pursuing post-fire erosion modeling. This raised the question across our region whether we should combine and pursue an evaluation for a broader landscape. The SJNF is doing the high valued resources and assets fire modeling across their entire landscape including much of the surrounding private land areas, which will include the predicted fire intensity levels needed to extrapolate to soil burn severity and model post-fire erosion from. However, taking on a larger scale, especially if values are incorporated into the post-fire modeling, could complicate and slow down the process.

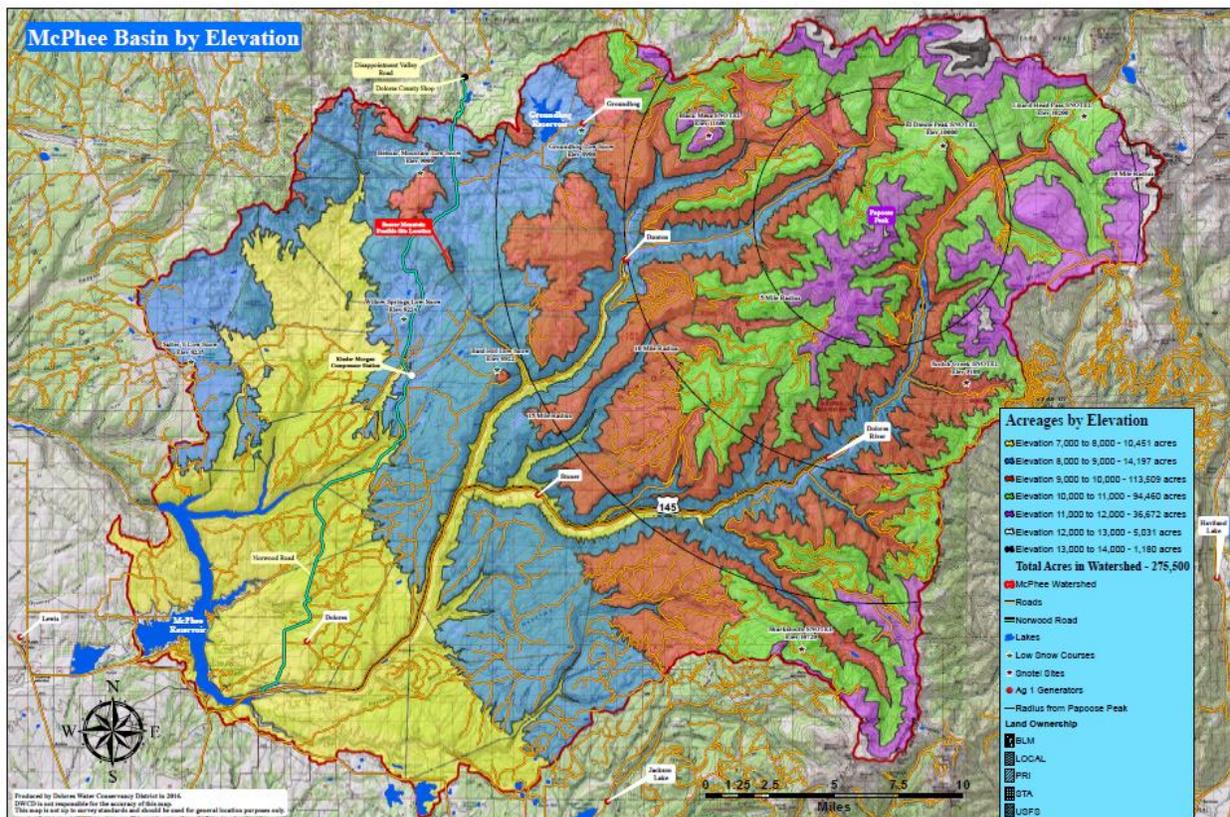
Becca began talking about how we might fund such an assessment. It is possible that The Nature Conservancy and the Ag. Services team in Arizona would be able to do this as part of their jobs, or for a low cost. Would CWCB fund this? The group advocated not to go chasing funding for this and to make sure we don't get caught up in black box modeling. The group was supportive of the risk assessment team determining what DWaRF is looking for in a post-fire model, and whether we should pursue it with Headwaters and SJNF on a broader scale or not. Ken reminded the group of the value of building off of local knowledge, and that this is also a valid way of identifying treatment areas.

Becca clarified that the assessment is another tool, and not something that we need to have to do work. For instance, there will already be hundreds of acres treated through the CAFA grant that we are getting for the Joe Moore area. Some of where we work can be guided in the future by scientific assessments of where the greatest risks lie that we can do something about, and other work is going to be guided by where the will and way exist.

Water

During the tour on June 1st, many questions about local water intakes and water security came up. The group was wondering how sediment settles or disperses in McPhee Reservoir. Through our process so far, we have learned that Dolores, Dove Creek, Cortez, and MWC all have drinking water systems that can draw from other sources, or are designed to be able to handle heavy sediment loads. Rico still has some risk from Silver Creek drainage. The drinking water would be more at risk from chemical or mineral contaminants than sediment and debris. The Montezuma County Emergency Manager has been working on a plan with the water providers and communities for notifications and gate closures to reduce impacts of a contamination. Following a fire, local weather stations could be used to identify flooding conditions and inform emergency response, both to protect drinking water supplies and other values within the flood zones. (Though the capability is there to filter, it may be preferred to run off storage and wells and let heavier sediment loads settle out before pulling water for drinking water supplies. Costs and time for treatment go up with heavier sediment loads.)

Ken Curtis shared several maps of the McPhee watershed including some SNOTEL, RAWs, and cloud seeding machine sites. He pointed out where the MWC and Cortez canal outtake is, and pointed out where MVI and some of the other outtakes are. A map depicting elevation in the watershed taken from a cloud seeding study depicts what the assessment team found with the original “drinking water importance areas.” Logically, these high elevation parts of the watershed are where the heavier snowpack and rainfall occurs.



Next Steps

- Bruce will find and share Coon Creek study – send to Becca
- The Risk Assessment Team will come up with a plan for post-fire assessment scale and methods to share with the group by the time the fire risk model is run.
- Becca will invite municipalities to review our identified values at risk.
- Becca will prepare a budget for group input for the August meeting.
- Pat will give a brief presentation on the Long Draw Fire at the August meeting.
- Ken shared watershed elevation maps with Becca
- Everyone should be thinking of locations where biomass heating projects might be viable. These are usually larger remote facilities that rely on propane.
- Becca was going to send BreWater tour and meeting information for Fort Collins July 28 & 29, but we found another FireWise/headwaters representative that wanted to attend.
- August Meeting scheduled for August 10th, 1:30-3:30 at DWCD.**