

Dolores Watershed and Resilient Forest (DWaRF) Collaborative

Meeting 18

9-6-17, 1:30 - 3:30 at Dolores Water Conservancy District Office

In Attendance: Becca Samulski (Coordinator), Bill Baker (U of Wy retired), Bruce Short (Short Forestry LLC), Dave Casey (SJNF), Derek Padilla (SJNF), Doug Roth (MC), Eric Janes (BLM retired), Thurman Wilson (USFS retired), Jim Mimiaga (The Journal), James Dietrich (MC), Jim Worrall (USFS), Jimbo Buickerood (SJCA), Joel Lee (NRCS), Jose Alanis (Rep. Tipton's Office), Ken Curtis (DWCD), Liz Manus (Outreach Consultant), Mike Preston (DWCD), Pam Wilson (FireWise), Mike Znerold (USFS retired), Rachael Medina (MC), Rich Landreth (Cortez), Shauna Jenson (SJNF), Tanner Hutt (DFPC), Tony Panek (NRCS) **On Phone:** Chris Asbjorn (BLM).

UPDATES:

Mike Preston – he and Aaron are on Forest Health Advisory Council. There is \$10,000,000 authorized for projects; \$1,000,000 of it in a category for recreation, environment and forest health, which is the best fit for DWaRF. We need to work over time to increase the proportion in that category. They still need to develop criteria on how to distribute grant funds. October 1 is the deadline for applications. Mike thinks the funds can be used on lands of any ownership. Becca intends to apply but is still working on the concept for the proposal. She thinks it will be about increasing our ability for rapid response. She also needs to give Mike P. enough information to write a letter of support for the proposal. Mike and Aaron are helping to inventory collaborative forest and watershed health groups in Colorado for the Advisory Council. The Council is trying to use the Water Roundtables as a way to connect into communities. At some point, we will want someone from DWaRF to make a presentation to the Water Roundtable. We need to link to the Water Roundtable and Water Plan.

Derek – There is a national-level Request for Proposals out for Joint Chiefs funding that is due Oct 1. Joint Chiefs refers to the Chiefs of the US Forest Service and Natural Resources Conservation Service, both part of the Department of Agriculture. He will put something in. Even if we don't get funded, at least it keeps our name out there. The San Juan will also apply for Supplemental Funds from the Regional Office. The San Juan currently has \$980,000 in good neighbor authority. SJNF has visited with Joel from NRCS to see if we can't get more forest health projects in NRCS EQIP funding.

Jimbo – He was part of a recent meeting with Purgatory Resort. They are planning two new lifts. They are also looking at forest management. They have concerns about losing trees that provide shade and hold snow, especially in their lower elevation beginner areas. They have some aspen, which helps, but are afraid of losing conifers to insect and disease, exacerbated by warming temperatures and changing precipitation patterns.

Tanner – gearing up to burn at Lone Mesa State park. The Colorado Forest Restoration Institute has students out there now setting up pre- and post-fire monitoring.

Derek – The Dolores District is planning to burn a 2,500 acre block in the Lake Canyon area. They probably will have to shift that to the next fiscal year (but still in this calendar year) because of being in Preparedness Level 5 nationally (resources are stretched thin fighting wildfires rather than supporting prescribed fire). They are also looking at Carlyle Point and some other areas. A small fire is currently burning in the Boggy Draw area near Forest Roads 527 and 528. It is in ponderosa pine and oak, on fairly flat ground and is doing some good. The Forest has not yet made a decision whether they had enough personnel for a box and burn suppression strategy (This was the Draw Fire. [See final update here.](#))

Becca – \$11,566 of our current funding will be left for this year after paying the AGWA modeling team in Tucson and Liz for her outreach work. There are two grant deadlines coming up in October that she intends to apply for operating funds through. She also has her eye on several grants expected to come out in

a December through February timeframe. It is also budget season, and she will visit with our Counties, the Water Board, and the City of Cortez.

Timber Industry Working Group Update

The Timber Industry working group met 8/18. The Timber Industry group notes are attached to the message with these original notes. Becca shared a diagram that shows the current industry situation built upon by the group.



Then the group spent some time developing strategies. Supply security seemed to be a very large issue for us to grapple with, but the group did not yet come up with strategies for improving supply security. Out of the meeting, several members of the group left with follow up tasks. David Sitton was not able to be at this meeting because he wasn't feeling well, but he was working on a few questions to pose to other timber business owners regarding training needs. Becca will continue to work with him to get this out.

Bruce Short worked with Tim Reader on a forest product by species matrix that showed current commercial and personal wood products and historic products. They incorporated the details from five forest product companies surveyed in Montezuma and Dolores Counties for the Regional Assessment of the Timber Economy in Southwest Colorado 2015 by Dr. Christopher Licata. He presented [this matrix](#) to the group. This matrix will be shared out to the timber group and see what additional products that haven't been produced historically or for personal use that might have some opportunity in the species and size classes of tree that we will need to process for restoration or resilience treatments throughout the DWArF landscape. Once a specific list of products is refined, someone on the timber industry team will work on contracting for thorough market research into these products. Jimbo asked if grading lumber was a barrier to selling wood here. Bruce said we can get graders here as needed. The biggest challenge is transportation.

The Timber Industry group defined several initial focal areas: Supply Security, Market Research; Industry Support; and Production Capital and Investment along with tasks or direction for each of these areas. Mike Preston is willing to take the lead on coordinating the timber group, but he would like other individuals to step up to specific tasks. Dave Casey should be engaged with Supply Security, Bruce Short should be engaged in Supply Security, and Dave Sitton was suggested for Industry support. It was acknowledged that Dave Casey and Dave Sitton are critical to the entire conversation, but the intent of this working group is to figure out how to support their work which will require others doing what we can. Production capital and investment was also identified as an important focus area, but that needs to come after market opportunities are clearly identified and supply security has been improved.

It was mentioned that industry may be afraid we are going to put the out of business. It was pretty clear among the group that there is room for operators of all sizes and that emphasis is put first on supporting our existing local industry. We also need new operators/operation that can use POL (products other than logs). Right now we are short on loggers and log trucks and those we have are aging.

Effects of Climate Change on the Presence of Tree Species Presentation

Jim Worrall, Forest Pathologist from the Gunnison Service Center, made a presentation on how forest cover types are likely to shift due to climate change. You can watch the webinar recording linked with these original notes starting at about 55:00 or [view the slides separately here](#).

Jim first got involved down here with SAD (sudden aspen decline), working with Phil Kemp and later with Mark Krabath. It was obvious that it related to the big drought we were experiencing, which appeared to be related to climate change.

There was a drying trend since the mid-1980s followed by record high temperatures in 2001-2003 and record low soil moisture content. This really affected trees. Researchers had to go back 800 years to find a drought that had such severe impact on trees (looking at tree ring data). Sudden aspen decline, mountain pine beetle outbreaks and spruce beetle outbreaks were associated with these conditions. In 2002 Colorado experienced the most acres burned in a year. Based on climate models, some scientists think that by 2030, those types of conditions will be the norm. If so, what kinds of impacts might that have on our forests?

They built bioclimate models for 14 tree species in southwest Colorado. They trained on real locations where we have presence/absence of tree species data, plus moisture/climate reference data, plus slope and aspect data. The data included 854,000 points of known tree species presence. They learned what combination of variables result in a particular tree species being present. They then projected future presence based on those factors (for example, the factors that result in aspen being present would occur in different locations in the future than now). Their report includes maps showing the suitability for various tree species at points in the future given different climate assumptions.

They used three global climate models by IPCC and three greenhouse gas scenarios. They looked at grids of current suitability and future projections to find change zones, using four change classes – lost, threatened, persistent, and emergent. A very significant amount of change was predicted. For example, in the 2060 projections, ponderosa pine is gone from its current locations although some might be found higher up where spruce-fir is now.

The application of this research is in considering what kinds of treatments may be most effective and in which locations. [Adapting Forest Management To Climate Change Using Bioclimate Models With Topographic Drivers](#) and [Bioclimate Models and Change Projections to Inform Forest Adaptation in Southwestern Colorado: Interim Report](#) both provide guidance for how the modelling of future conditions can be incorporated into management.

By having a good estimate of where a given species will be in the future, we can:

1. Apply treatments most appropriate for the future;
2. Focus efforts where they have the greatest likelihood of long-term success; and
3. Identify sites and strategies to protect special species.

An example is where does it make the most sense to manage spruce and how? In the persistent areas, probably manage as normal. In threatened areas probably manage spruce as second priority, focusing on resilience.

Some species, particularly Douglas fir and aspen, have the potential for assisted migration. It would make sense to manage persistent Douglas fir as a seed source for emergence to other areas. Some areas may be important to manage as refugia.

The main takeaway message was that we should consider the potential effects of climate change on species presence to design treatments that are most appropriate and to focus resources where there is the highest likelihood of success.

Jim left us with a thought: ‘If you don’t plan for the future, you’re planning for the past’ and answered questions.

Someone pointed out that if the models point toward our forest having very low suitability for existing forest species in 2060, it might look even worse in 2080 or beyond. Bill Baker pointed out that things could also look better if more was done globally to reduce human-caused climate change. It would be interesting to see another iteration of the modeling with lower atmospheric carbon concentrations more in line with projections of what might occur if the Paris Climate Accord is implemented.

Bruce pointed out that we should be thinking about what will be needed in terms of seed sources – species and the specific genetic makeup (where should they come from) that will be more resilient to future conditions. Looking to the future, maybe we should be planting Douglas fir now but where do we get the seeds – what source would be best, etc.

Thurman asked what is expected to be where the ponderosa pine. Nothing seemed to be emergent there. They looked for climates that were similar to the anticipated climate in 2060 in other parts of the west today and these were desert areas of Arizona and Nevada.

What’s Next

Becca would like some people to meet as a steering group (maybe Derek, Mike, someone from the County(ies), Jimbo or someone more from a conservation/environmental group perspective) before the next meeting.

We also need to figure out how people want to plug in. We need a watershed wildfire protection planning working group to evolve out of the assessment group plus any others interested. Becca would like to see a planning group meet before the next main meeting and rough out what kind of product we might want. Shauna and Doug have already made plans to meet to cross-walk the wildfire risk and post-fire erosion modeling as a starting point for the planning group. Eric Janes asked to be included in this group.

Next meeting: October 4, 1:30 – 3:30 at the Dolores Water Conservancy District Office.

Notes by Thurman Wilson with Becca Samulski edits.