

Fall 2017 Signatories Meeting Notes

Biomass

The biomass team met to discuss the opportunities, challenges and next steps associated with creating industries from biomass. One participant explained opportunities for biomass industries in the state of Maine, where there are incentives for industry including equity financing, and where several biomass-fueled electric generation plants exist. Staff from Adelante discussed the grant that Sandoval County has received to create a biomass project or business with no or low-value biomass coming from forest restoration. The County's motivation is understanding both economic development and a keen interest in how the RGWF is creating resilient forests and watersheds. A representative from the Los Alamos area expressed possible interest in biomass energy production as a baseload capacity replacement for the portion of San Juan Generating Station that currently serves Los Alamos. The group also showed interest in identifying opportunities for industries that manufacture products that combine biomass with plastics are taken to recycling plants. Potential partners identified included the Western Governors Association, utilities, biomass industry associations, recycling companies, pueblos, military bases and the New Mexico Energy, Minerals and Natural Resources Department. The group identified the creation of a permanent biomass committee, as part of the RGWF, to continue to work on the Sandoval County possibility and explore other biomass industry opportunities.

Burned Areas

It is clear from our discussion that there is a clear need for local groups to develop strategies for responding to the challenges communities face following large, severe wildfires. Several members of the discussion had recent experience with the large wildfires, notably the Dog Head and the Las Conchas Fires. People with experiences stressed a few things:

1. Before the fire:
 1. Identify resources that may be impacted by post-fire flooding
 2. Develop relationships with people who can help after the fire. For example, National Weather Service, US Forest Service, State Forestry, NRCS, county and personal contacts with municipal governments. Developing first name relationships with members of these organizations will speed up the time it takes to get help.
 3. Incorporated post-fire response into existing fire and emergency management plans.
2. After the fire:
 1. Set up early warning system and let people know about the risk
 2. Bring in temporary infrastructure to increase, or replace lost, telecommunications.
 3. Start planning for the long haul. Usually, it takes 5-7 years before the watersheds stabilize after a fire, and even then the streams will likely be flashier than before the severe disturbance. Long-term monitoring and restoration should be part of the landscape planning efforts.

There is a great need for information sharing, and people have an interest in webinars, resource libraries of examples of post-fire management plans, and workshops that facilitate co-learning

between groups. People should visit AfterWildfireNM.org for more information; this is a great resource! We need to work to promote learning for pre-fire planning particularly about potential funding sources and already existing resources for post-fire recovery.

Legislative Opportunities

Our top three ideas:

1. Advocate for capital outlay for forest and watershed restoration in the NM Legislature in 2018; make the case by providing evidence of how the RGWF and NMDGF have leveraged capital outlay funds. For example, the RGWF has provided a \$9:1 leverage and NMDGF secures \$3 federal for every \$1 of private funds.
2. Work with the NM Legislature, Attorney General, and Agencies to clarify the anti-donation clause as it applies to restoration activities with state funding on private land that achieve a public benefit of watershed protection.
3. Develop a forest and watershed restoration platform to share with candidates for Governor.

We also talked about strategies to increase local employment, such as helping local contractors to get on State Price Agreement lists, hold-harmless legislation for landowners who use certified burners for controlled fire, and policy related to air quality and prescribed fire smoke.

Monitoring Data

This roundtable group discussed current monitoring initiatives and data collection methods. Data formats and standards to facilitate data sharing between agencies were also discussed.

Only one monitoring contractor is currently in use, and their capacity to increase the number of plots surveyed is limited. As the RGWF has scaled up, the monitoring protocols now in use will require the development of additional monitoring capacity or modification of the monitoring protocols.

Many sources of additional monitoring capacity were suggested by the group, with most falling into three categories: students and youth, professional contractors, and volunteers. Each team has associated tradeoffs, particularly regarding cost and resulting data quality.

We discussed an alternative to increasing the number of monitoring teams, using three levels of monitoring protocols. were suggested by the group:

1. Citizen Science (featuring relatively simple metrics)
2. Vegetation and Fuels Plots (current approach)
3. Full Monitoring including Wildlife and Hydrology

Each of these protocols can contribute to the overall effectiveness of the monitoring program. While all of these protocols are currently in use, increasing the visibility of the full monitoring studies (in the Jemez Mountains) and developing technology that enables volunteers and other citizen scientists.

In addition to the three levels of monitoring, we suggested alternative technologies that do not require manual data collection:

1. Modified Vegetation and Fuel Plots
2. Remote sensing and UAVs

Each of these protocols can contribute to the overall effectiveness of the monitoring program, and the group recommended evaluating these technologies as an alternative to the current protocols.

The concept of an open standard for data collection was presented, though the group identified a core set of attributes that can be mapped between all monitoring initiatives as more essential and feasible than an open standard. An informal data-centric sub-working group was proposed to increase ease of data sharing.

Water Quality and Security

Overall Group Goal: The overall goal endorsed by Group D can be summarized as "**slowing down and storing water to preserve and improve the watershed's ecosystem.**" The primary benefit of slowing the water down is minimizing erosion impacts throughout the watershed. Low-scale storage features are a primary way of accomplishing this.

Implementation Steps: There are three primary implementation steps to accomplish this overall goal:

Step #1: Develop Best Practices Through Increased Coordination – A wealth of best practices exist for creating low-scale storage facilities which improve erosion conditions and groundwater recharge (an example is the “slope wetlands active storage” method used in meadow areas). **A compilation of best practices should be created for consistent application of improvements in the watershed.** The US Forest Service will be an influential group to coordinate with given their ownership of many headwater streams and the watershed area itself. The NM Environment Department also has several technical manuals with best practice methods that should be incorporated.

Step #2: Establish Hydrologic Monitoring and Modeling Regimes – While there is already a great deal of hydrologic and modeling data in some locations, such as the Valles Caldera, **a concerted effort should be made to plan monitoring activities and add certain types of instrumentation to areas.** For example, it’s encouraged to collect remotely-sensed data before and after treatment, and then plan/execute forest restoration in ways that can be used to understand changes in hydrological fluxes through modeling efforts.

Step 3: Promote the Use of Beavers – Good examples exist where methods like “slope wetlands active storage in meadows” have contributed to raising water tables with beaver populations (along incised streams). Several locations where this has occurred are the Valles Caldera and Valles Vidal (Comanche Creek). While relocating beavers can be an issue (they are often killed instead of being transported), **stream recovery (i.e., the growth of woody vegetation) has been**

witnessed (on the Rio Cebolla, for example) following the installation of beaver dam

analogs. These analogs are T-Posts woven with willows to promote the return of beavers to an area. The Quivira Coalition has considerable experience with treating arroyos using similar techniques. Additionally, “beaver deceivers” can be used in situations where beaver establishments are undesired in an area.

Wildlife Connectivity

The conversation quickly moved beyond wildlife habitat connectivity and also recognized habitat condition and habitat diversity as other important aspects to consider when planning large-scale treatments. Participants identified the need for a systematic analysis of wildlife movement with the timing/seasonality of use overlaid with the timing of mechanical treatments and prescribed fire to understand how one may affect the other. All agreed that the long-term benefits of these types of restoration strategies outweighed the short-term impacts, but that we (as a group) needed to do a better job of explaining those benefits to various user groups. A targeted message that is nuanced for each user group would help garner support for restoration treatments that ultimately benefit wildlife and their habitat. Next steps include turning the round-table discussion participants into a working group to help develop shared language our organizations could use to educate and engage wildlife user groups on the long-term benefits of restoration treatments to wildlife and wildlife habitat.