

Zuni Mountain CFLR Multi-Party Monitoring Meeting 03/13/2019 - Summary

Background

The Zuni Mountain multi-party monitoring meeting took place on March 13, 2019 in Grants, New Mexico. Members of the [Zuni Mountains Collaborative](#) representing conservation organizations, recreation and trail-building organizations, New Mexico state government, county government, pueblo government, forest service, and the wood products industry.

The purpose of the meeting was to review and update the project monitoring plan to prepare for a transition from the Bluewater project area to the Puerco project area. With the reauthorization of the CFLR in the most recent farm bill, the project team has two years to prepare a proposal for the continuation of funding for the Zuni Mountains Collaborative Forest Landscape Restoration Program (CFLR). To begin we reviewed the ecological and socioeconomic indicators that were presented in the 2013 Gap Assessment. Monitoring indicators presented in the [2013 Gap Assessment](#) included:

1. National Forest Foundation Outcomes and Indicators
2. Hydrology and Climate
3. Vegetation
4. Fish and Wildlife Habitat
5. Wildfire Effects
6. Wood Utilization
7. Wildfire Suppression Cost Savings
8. Livestock Grazing
9. Cultural Resource Protection
10. Restoration Business Stabilization
11. Job Sustainability
12. Training and Outreach
13. Ecosystem Services, Recreation, Tourism

Monitoring Data

For the sake of time, we discussed all socio-economic indicators simultaneously (indicators 6-13). Meeting participants were called ahead and asked to prepare qualitative or quantitative descriptions of how the Zuni Mountains CFLR influenced the social and economic conditions of their organization. Conversation was facilitated by Matt Piccarello and Gabe Kohler of the Forest Stewards Guild.

Socio-Economic Monitoring

Indicators monitored for:

1. Labor hours for FTE)
2. Number of individuals support by reported FTE
3. Labor costs
4. Non-labor costs
5. Leveraged funding (in-kind)
6. Wood utilization and product breakdowns

Matt Allen, the owner of Mt. Taylor Millwork and Machine, began by describing a wide-spread misunderstanding about the link between wood processing businesses and funding from long-term projects like the Zuni Mountain CFLR. According to Allen, the socio-economic reality of wood utilization does not account for the quality of products that are coming off of restoration projects like the Zuni Mountains CFLR. Lower grade, smaller diameter timber coming off restoration projects dictate the products that can be made and their prices. Furthermore, long-term funding commitments from projects like the CFLR are essential to business stabilization. Continued investment is a requisite to a competitive business in the current market and without the 10-year funding promise of the Zuni Mountains CFLR, Mt. Taylor Millwork and Machine would be forced to close. Matt offered up the fact that although his business only employs 44 people, in a small town like Milan this amount of jobs is equivalent to around 1,500 jobs in Albuquerque per an analysis done by a local economist. The crucial importance of wood processing capacity was re-affirmed by Forest Service personnel when they stated that ecological restoration projects like the Zuni Mountains CFLR would not be possible without it. While [historical railroad logging](#) was a major contributing factor to the poor forest conditions the CFLR is seeking to address, the forest restoration being conducted today REQUIRES the wood products industry and businesses like Matt Allen's in order to offset the costs of this important restoration work.

Participants agreed that monitoring the socio-economic conditions of the Zuni Mountain CFLR must include the costs of operation for businesses like Mt. Taylor Millwork and BRL logging. The rising cost of fuel, electricity, labor, travel time, and maintenance of used equipment throughout a project make it difficult for businesses to remain economically stable. A representative of BRL logging suggested that in order to better match socioeconomic monitoring to the economic reality of wood processors the Collaborative should monitor the number of acres that a harvester goes through and the number of loads that they can obtain from an acre.

Participants expressed a need to write proposals with greater consideration of how the socio-economic success of a project will be evaluated. This was in reaction to the fact that the original proposal confidently stated that treatments would be able to pay for themselves by the end of the project. Participants expressed that although this goal was not reached, it should not be the only indicator of the economic successes of the project.

Finally, many participants described opportunities to document existing recreation value in the Zuni Mountains landscape in hopes of accounting for the fact that the CFLR project has the dual outcome of: 1) increasing the conditions of existing recreation opportunities, and 2) protecting existing recreation from being lost to wildfire. Opportunities included; bringing mountain bike trails to the Grants area, documenting business of outfitters and guides, documenting values associated with boy scout/ girl scout jamborees, capturing value of increased visitors to Grants area by talking with the Chamber of commerce, and possibly incorporating the Zuni Mountains Rail tour into the project design. McKinley County representative, Carrie House, mentioned that recreation is a 1.2 million dollar industry annually, and that there are many youth training opportunities associated with trail-building, etc.

After discussing the socioeconomic conditions surrounding the Zuni Mountains CFLR the Collaborative moved onto individual presentations for the ecological indicators: Climate, Hydrology, Mammals, Fish, Birds, and Vegetation. Matt Piccarello presented on hydrology and climate, Shawn Martin presented on Vegetation, and Gabe Kohler described existing monitoring efforts of fish and birds in the Zuni Mountain Landscape.

Hydrology & Weather

Water quality monitoring in the landscape has focused on Bluewater Creek and habitat areas of the federally listed [Zuni Bluehead Sucker](#) in the Rio Nutria west of the continental divide. Matt Piccarello from the Forest Stewards Guild described that a lot of the water monitors have been stolen, tampered with, or their life cycles ended (battery) since they were deployed in 2013. Since 2013, the Guild has coordinated the collection of the following parameters (Spring through Fall) in the Rio Nutria:

1. Level
2. Temperature
3. Electrical conductivity
4. Fine sediment

Spot measurements for pH and dissolved oxygen have also been collected while maintaining the Solinst devices. A new partnership with the Spring Stewardship institute to monitor springs in the Zuni Mountains will further support water quality/quantity monitoring efforts.

Some participants expressed interest in coordinating with vegetation monitoring to evaluate how spring re-charge changes following thinning. This information could be tied with climate data to better understand how the amount and timing of ground water is decreasing in response to climate change. A water quality monitoring sub-group meeting is planned for April 2019.

The Forest Stewards Guild has maintained a Remote Automated Weather Station (RAWS) west of the continental divide near McGaffey Lake since 2014. Guild staff are currently working on updating the RAWS modem for the switch to 5g.

Vegetation

Shawn Martin, the silviculturist for the Cibola National Forest, described that there are 130 permanent common stand exam (CSE) vegetation monitoring plots in the Zuni Mountains CFLR landscape. Shawn shared examples of how individual treatments influenced a stands resistance and resilience to wildfire. Data collected from vegetation monitoring has influenced prescriptions. Shawn Described how thinning prescriptions were adjusted based on CSE data and experiences prescribed burning. Meeting participants saw opportunities for vegetation monitoring to overlap with hydrological and climate monitoring to create thinning treatments that are most effective at creating forest conditions that are are resistant and resilient to drought. Shawn mentioned that he is working to create a thinning prescription in ponderosa pine forests that works with topography to increase the amount of time that snow remains on the forest floor, and participants expressed interest in seeing how thinning treatments correspond to the quantity of water released during spring re-charge.

Participants mentioned the possibility of combining vegetation data with other ecological data to create a more complex understanding of fire effects, wildlife habitat, and grazing conditions. Both vegetation and fire effects monitoring mentioned the use of [Terrestrial Ecological Units Inventory](#) (TEUI) data for planning thinning and prescribed fire. This data provided land managers with information about soil conditions and potential site vegetation that was useful in the early phases of treatment planning.

Mammals

Forest Stewards Guild program assistant, Gabe Kohler, reported on hunter harvest data that he received from the New Mexico Department of Game and Fish (NMDGF). The data was described as potentially useful for estimating changes in populations of game species. Hunter harvest data goes back before 2012 when the Zuni CFLR was initiated, providing background data of pre-treatment conditions. However, due to confounding factors hunter success is a poor indicator of game populations, and the group saw this form of data as insufficient for understanding how project treatments have influenced wildlife.

Many meeting participants saw opportunities for wildlife monitoring to overlap with vegetation monitoring to document the amount of habitat created or enhanced. Many agreed that monitoring the amount and distribution of wildlife habitat throughout the landscape was a better indicator of the effect that treatments would have on various wildlife species as opposed to population counts.

Fish

Monitoring of the Zuni Bluehead Sucker has been ongoing in the Bluewater project area as well as in the Puerco project area. In 2013, around the same time that the project began, the ZBS was federally listed as an endangered species. Monitoring of the ZBS was transferred from the New Mexico Department of Game and Fish to the U.S. Fish and Wildlife Service. Melissa Mata, biologist for the USFWS provided information about the status of data about ZBS populations and habitat. A 3-year report, describing habitat and population data from 2015-2018 will be completed and released within 2019 along with a broader 5-year report that will review the success of the ZBS program since it was taken over from NMDGF.

Birds

Forest Service wildlife biologist, Consuelo Zamora, presented information about monitoring of breeding and migratory birds in the Zuni Mountain Landscape. The forest service has data of Northern Goshawk (NGO) and Mexican Spotted Owl surveys from 2013-2014 and from 2018-2019. Surveys identify post-fledging areas of the NGO and MSO. Consuelo also shared that 2 routes of the U.S. Geological Survey breeding bird survey go through the Zuni Mountains Landscape and could provide annual data of breeding bird population counts.

Next Steps

- **Work with wood processors and logging contractors to identify how costs of operation have changed throughout the project and incorporate these changing costs of operation into future proposals.**

- Begin the process of adapting current water quality and quantity monitoring, especially considering the need for improved sediment monitoring.
- Use vegetation data to identify how forest treatments have influenced the amount and quality of wildlife habitat
- Use vegetation data to identify how treatments have influenced wildfire hazard.
- Continue to work to share data amongst project partners in hopes of catalyzing future projects and proposals.
- Look for opportunities to institutionalize climate or hydrology monitoring to provide long term context of forest treatments in a changing climate.