

My Turn

Renewing resilience, productivity in the Sangre de Cristos

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The urgency that prompts forest and water managers in Taos County to work to improve local forest conditions is informed by what has happened in the Jemez Range. Jeff Briggs runs a crew there that fells burnt trees and replants evergreens. He says that drainages like Taos Canyon, that once had streams, are charred wastelands without a single tree. Without vegetation to capture precipitation, watersheds become “flashy.” Every rainshower and snowmelt becomes a flood followed by a drought. Virgil Trujillo from Abiquiu has had four fires in the mountains that supply his acequia. Every storm deposits a heavy layer of ash and silt in his acequia. The water rushes down fast and does not last.

In 2014 several members of the Taos County Community Wildfire Protection Plan (CWPP) Core Team formed the Taos Valley Watershed Coalition in response to planning and funding opportunities from the Rio Grande Water Fund. The stakeholders agreed that to prevent extreme fire across local watersheds, it is necessary to “scale up” the excellent work that has been underway locally.

The forest produces water, wood products, food (livestock and game), and provides for recreation, but it is impaired in its ability to produce well, and is at tremendous risk, because we have taken so much out of the forest without reinvesting in its vitality.

Travelers in 1858 describe a trip in the Jemez: “a glorious forest of lofty pines undulating for miles with every foot being covered with broad grassy vales.” Fire scientist Tom Swetnam says “Frequent surface fires allow larger trees to persist, limit the success of new trees, and foster patterns of open meadows mixed with tree clumps.”

Surface fires that occurred every 7-12 years produced the best ecology for water and timber production. Forest managers cannot turn fire loose in the dense stands that exist now, because that will turn into catastrophic crown fire. Forest thinning reduces stand density, selects for fire adapted species like ponderosa pine and Douglas fir, improves water and timber production, and prevents the spread of extreme fire (see “How Fuel Treatments saved Arizona Towns from the Wallow Fire”). “Shaded fuel breaks,” where the “fuel ladders” have been removed, create “drop and stop zones” where crown fire falls to the ground and can be extinguished by fire crews.

According to Valles Caldera Research Chief Bob Parmenter, “dense forests intercept much of the winter snowfall, and nearly 50 percent of it evaporates and is lost to the terrestrial water

cycle.” Those extra trees are like a thousand straws all in one cup, further reducing spring and stream flow. Even a 10 percent increase in water yield from local forests, resulting from an investment in forest thinning, would be worth millions of dollars in today’s society. Water managers recognize that the source of their water supply is the “forest reservoirs” that capture, store, and release water. Modest “user fees” are being considered to support investments in watersheds. Instead of losing torrential storms downstream as “floods,” a forest that is managed for maximum water retention will capture, store deeply in the soil, and release it slowly, extending water availability over time. Entrepreneurial investments in watershed health will improve security immediately and set the stage for long term prosperity in the region.

In the excellent recent article by J.R. Logan, Carson National Forest Silviculturist Jim Arciniega demonstrated that trees grow twice as fast when competition is reduced. Our forests could produce more wood products, increase employment opportunities and be more beautiful if they were managed like Jim described. We need to work together to grow large valuable trees again, and perfect methods of harvesting that leave the forest more beautiful and productive every time we enter.

Some of the low-value wood that must be cut away can be used on site to stabilize soils and help infiltrate water – as mulch on dry sites and as log check dams in gullies and on steep slopes. These measures support a fully hydrated forest that is less likely to burn or suffer insect damage. In thick areas the slash must be burned or chipped. Wood haulers and local mills have been tremendous at reducing fuel loads, and they could scale up.

This work will need to be subsidized in the short term, because most of the big valuable trees are long gone. The CWPP Core Team has taken advantage of only four of the 25 grant opportunities that have been identified. Please bring your ideas and elbow grease to the next Core Team meeting on Feb. 4, 2 p.m., or the Watershed Coalition on Feb. 18, 1 p.m., both at the Commission Chambers.

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