



HEALTHY HEADWATER'S SUCCESS STORY:

SANTA FE, NEW MEXICO — SUSTAINING THE WATERSHED

Santa Fe's Water Fund offers an “insurance policy” against catastrophic impacts of mega-fires

More than a third of the municipal water supply for Santa Fe's 80,000 residents comes from the Santa Fe River, which flows from the Sangre de Cristo Mountains just east of town. Most of the river's watershed lies in the Santa Fe National Forest, including 10,000 acres within the Pecos Wilderness Area.

Threats to watersheds come in many forms, but in the Southwest the one that rises to the top of the list is catastrophic wildfire. A series of large-scale fires has struck the region's ponderosa pine forests recently: the 48,000-acre Cerro Grande fire in northern New Mexico 2000, two fires in eastern Arizona—the 468,000-acre Rodeo-Chediski fire in 2005 and the the 538,000-acre Wallow Fire in 2011—and the 150,000-acre Las Conchas Fire, which burned 60 percent of the Bandelier National Monument in 2011.

These large fires are a direct threat to communities' water security. For example, sediment and debris from the Cerro Grande Fire caused \$17 million in damage to the water supply delivery infrastructure of Los Alamos, New Mexico. For this and other reasons, the fires have changed the way conservationists, agencies, and water utilities think about forests and watersheds. As Laura McCarthy, of The Nature Conservancy (TNC) in New Mexico, puts it: “The Cerro Grande fire was a wake-up call for much of the West.”

The people of Santa Fe got the message. Shortly after the Cerro Grande fire, city officials began looking for ways to protect the Santa Fe River watershed, and in short order secured a \$7 million congressional earmark to pay for an initial phase of forest thinning projects near the city's two reservoirs on federal lands between 2003-06.

But this initial work was just the beginning of what was necessary to protect the watershed. As the thinning came to a close, “the writing was on the wall,” says McCarthy. “Federal earmarks would not be a reliable source of funding for the long term.”



**Profile of a Watershed Advocate:
Laura McCarthy wants to see
results on the ground**



Laura McCarthy joined The Nature Conservancy (TNC) in New Mexico in 2005, following stints with the U.S. Forest Service and with the New Mexico-based Forest Guild. In addition to fire policy and supporting forest restoration projects, McCarthy's job duties include promoting the emerging concept of "payment for ecosystem services," which McCarthy wants to see as a tangible change on the ground — "not some theoretical notion."

It didn't hurt that McCarthy had once worked for—and stayed in touch with—Rick Cables, one of the principals behind the Denver "Forest-to-Faucet" partnership, which owed some of its inspiration to the Santa Fe project. "It was good synergy," notes McCarthy, who said both efforts offered support and lessons to one another as they developed.

McCarthy is proud of the Santa Fe Water Fund, both for its "good financial sense" and for the tangible restoration work already underway in the watershed. The Nature Conservancy continues to build the learning network—hosting fire practitioners from Mexico, Chile, and Guatemala in the fall of 2011 to share lessons and discuss challenges of the water fund approach. Above all, says McCarthy, you have to allow time to build a partnership like this—"not just hours in the day, but time to allow people to come into an idea."

City officials realized they needed a sustainable plan—not just for restoration work itself, but for raising the money to get it done. Armed with a \$50,000 grant from the Forest Service's New Mexico Collaborative Forest Restoration Program, they began work on a comprehensive watershed management plan, outlining goals for water and vegetation management, public education, and funding. The price tag for the work - \$4.3 million over 20 years—raised some eyebrows at first. But that figure is less than a fifth of the estimated water-related costs that would result from a 10,000-acre fire.

An idea for raising much of this revenue came from an unexpected source. While the watershed plan was in the works, one of McCarthy's TNC colleagues returned from a trip to Ecuador, where he had visited the first community-based fund that the Conservancy set up to finance watershed restoration and protect water supplies. This example reminded McCarthy of a conversation she'd had with her mentor, Regional Forester Rick Cables, who was beginning to talk about using revenues from urban water users to help fund forest restoration projects.

McCarthy suggested the Ecuador water fund as a model for Santa Fe. She realized it was a textbook example of "payment for ecosystem services," one of the very concepts TNC had originally hired her to promote in 2005.

McCarthy's idea launched a conversation that took several years to unfold. McCarthy first approached the Santa Fe Fire Department, then the Water Division, and with them linked up with the non-profit Santa Fe Watershed Association. Together, these partners crafted a proposal to raise about \$200,000 annually for a water fund—enough to make a substantial contribution to the work called for in the emerging Santa Fe Municipal Watershed Plan.

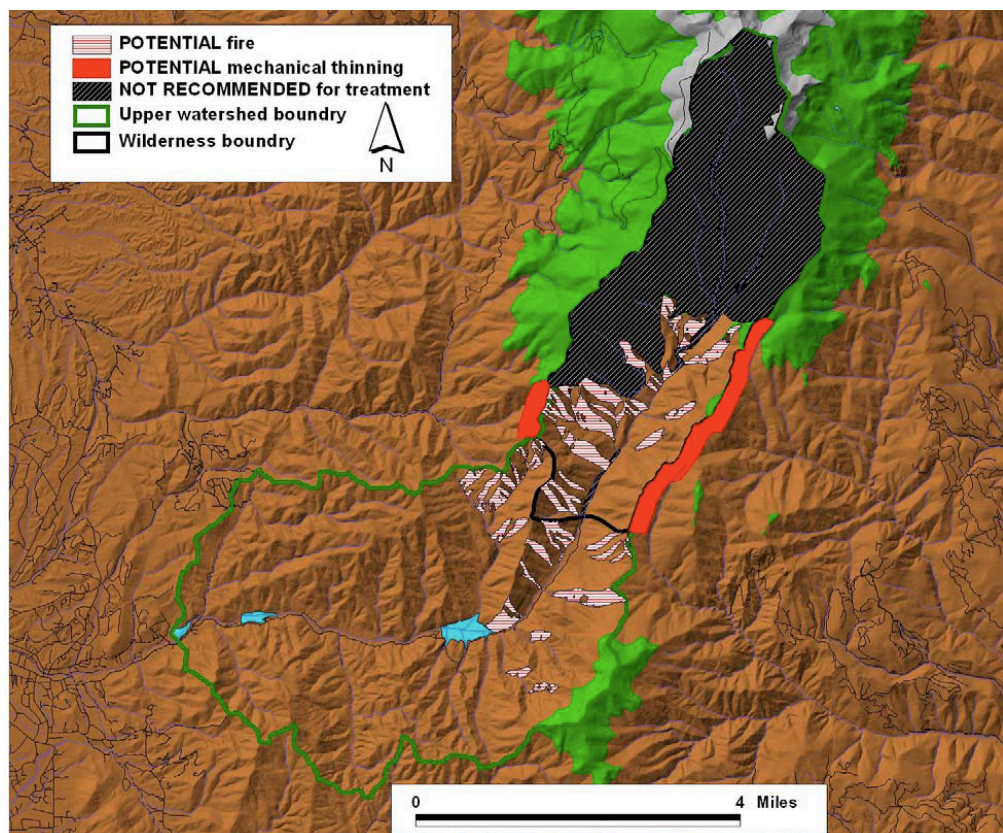
Another natural partner was the Forest Service, which had warned in a 2001 environmental impact statement that the Santa Fe watershed was at grave risk from catastrophic wildfire, and in need of thinning and prescribed burning to restore more natural conditions. Officials at all levels, from the local district ranger to the regional forester, were glad to support the watershed plan.

When the final [Santa Fe Municipal Watershed Plan](#) was published in 2009, it included McCarthy's idea of a ratepayer contribution program. But would the city's water users support the plan? While the charges proposed in the Plan are relatively modest— about 54 cents per month for the average household— Santa Fe already has relatively high water rates compared with other western cities. Despite this, a March 2011 poll conducted by TNC and the Watershed Association found that 82% of ratepayers were willing to pay a charge of 65 cents per month to protect the City's water supply from the risk of catastrophic wildfire.

The City has been able to postpone a mandatory rate increase, thanks to a grant from the New Mexico Water Trust that funds the first three years of the watershed plan. Instead, the City Council decided to launch the fee program as a public education opportunity—listing the charge on users' water bills as a credit, with a note about the purpose of the expenditures. This offers the chance to educate water users without boosting rates - an approach that McCarthy describes as “brilliant.”

For additional information:

Santa Fe Municipal Watershed Plan: www.santafenm.gov/DocumentView.aspx?DID=4354



Treatment recommendation map for the upper Santa Fe Watershed Wilderness Area and mixed-conifer forest above McClure Reservoir (from the 2009 Santa Fe Watershed Plan)

Carpe Diem West leads a network of water decision makers and scientists in the American West that is developing collaborative, innovative actions and policies to create water security for our communities, the food we grow, our economy and our environment.

Carpe Diem West's Healthy Headwaters Project is an alliance of upstream land managers, downstream water utilities, and conservation advocates whose goal is to increase the climate resiliency of the headwaters systems that provide the West's drinking water.

325 Pine Street Sausalito, CA 94965
415.332.2112 | info@carpediemwest.org | www.carpediemwest.org



CARPE DIEM WEST
Our water – Finding solutions together