

40 acres of Martis meadow to be rehabbed

By Michael Rohm

Beth Christman, director of Restoration for the Truckee River Watershed Council, knows exactly how small 40 acres is. Compared to the 90,000 acres of degraded watershed within the greater Sierra Nevada region, 30,000 of which are slated to be restored by 2030, 40 acres is a drop in the bucket.

But this is a bucket that has been jostled, kicked and repeatedly drained by 150 years of harmful human impact. Every drop counts.

“We’re doing our part,” she said of her seven-member team at work to maintain and improve watersheds within the Tahoe region. “It all adds up.”



Crews work to restore meadows throughout the Sierra Nevada.
Photo/Beth Christman

Christman and her team are one of about two dozen natural resource groups within the greater Sierra Nevada region who have joined forces to create the Sierra Meadows Partnership, a multi-agency initiative to restore 30,000 acres in 15 years. Spearheaded by California Trout, this mixed-bag group of nonprofits, government agencies, universities and funding institutions have come together to restore crucial watersheds that account for more than 60 percent of the developed water supply in California.

For the Truckee River Watershed Council, that restoration began with a crucial 40 acres in the Martis Valley where Highway 267 meets the Middle Martis Creek. This watershed northwest of Lake Tahoe is a salient example of what environmentalists call legacy impacts: the actions of previous generations that affect us today. When the road that would

become Highway 267 was first constructed in the 1860s, Martis Creek was channeled to the opposite side of the road, effectively bisecting the floodplain. Subsequent erosion destroyed 40 acres of meadow and contributed to frequent flooding across the highway.

“The infrastructure in that area is not going anywhere,” Christman said. “So we had to get creative to work around the legacy impacts.”

Creative action for Christman and the Truckee River Watershed Council involved efforts to recreate floodplain functions that had been damaged or destroyed by human impact, such as flow dispersal logs and beaver dams, manmade solutions that successfully mimic natural ones. Additionally, the creek at an existing culvert north of the highway was divided to allow the flow of water to continue on both sides of the road, rather than through the sole, and often overwhelmed, outlet. These actions restored the forty acres that had been lost to legacy impacts while preventing additional flood damage to human infrastructure.



This shows where logs will be placed

in Middle Martis Creek off Highway
267. Photo/Beth Christman

“It may not seem like much,” Christman said, “but we’re doing our part to restore these important watersheds.”

Also doing their part for Tahoe is the local chapter of American Rivers. With his four-person team based in Nevada City, Luke Hunt, director of Headwaters Conservation, focuses on headwaters restoration, a broad title for the holistic maintenance of meadows, forests, and forest roads as they pertain to water health.

“There are occasional blowouts, but most of this degradation can’t be seen until years later,” Hunt said of the damaged Tahoe ecosystem. “But the damage is definitely happening and it’s only getting worse.”

Nothing illustrates this quite like then-and-now photography, pictures of the same location separated by time. “You can see how there has been a network of erosion that continues to draw water out of the meadow,” Hunt said, highlighting the post-1950s streams and channels that have leaked out of the meadow like holes in a water balloon. “These days it’s either flooding or it’s dry. A watershed is not supposed to do that. You want the rainfall to slowly go in and out of the creek.”

This degradation of key watersheds explains a phenomenon that is especially relevant to California lately: the cycles of flooding and drought that result in water, or lack thereof, at entirely the wrong times.

Despite these environmental disasters, Hunt is hopeful. “I think there’s a great opportunity, especially right now, to restore the meadows,” he said.

And with so many local agencies coming together to address the issue of watershed management, the future looks restored. “We’re making a lot of progress,” Luke said. “These forests

and meadows are part of California's supply of clean water, and we're working together to take care of them."

Exact costs of all of the restoration work has not been determined. Until funding is secured, which could be in a phased approach, a time line for completion has not been set.