

Restoring Mill Creek

Jump-starting natural processes with water, native plants, and ... volunteers!

by Morgan Lindsay

Eastern Sierra residents and visitors alike treasure Lundy Canyon for its colorful fall aspen groves, fascinating mining history, and quiet solitude; fishing, camping and hiking; wildflowers, bird life, and bighorn sheep; the list goes on. At the heart of Lundy Canyon is Mill Creek, rushing over waterfalls, filtering through quiet beaver ponds, and shimmering in Lundy Lake Reservoir before flowing out to Mono Lake near Black Point. In Lundy Canyon, Mill Creek flourishes.

But there is another, hidden side to Mill Creek. Below the dam, Mill Creek slows to a trickle and the once-rich mosaic of meandering side channels, wet meadows, and streamside forest west of Black Point has mostly disappeared. In drought years, cottonwood and willow trees died for lack of water. In wet years, torrential snowmelt scoured and straightened once sinuous stream channels and eroded the fragile stream banks. Previously lush bottomland habitat for the trout fishery, nesting songbirds, and waterfowl shrank to almost nothing. Today, after a recent period of low but consistent flows, Mill Creek clings tenaciously to life—with occasional wet years providing a vital lifeline. A degraded hundred-year-old ditch has prevented Mill Creek's water from returning to Mill Creek after generating hydropower.

Now there is good news. With the conclusion of a 30-year re-licensing process, Southern California Edison (SCE) will soon begin installation of a buried pipeline to replace the defunct ditch. The return of Mill's long-lost water represents a monumental opportunity for stream restoration in the Mono Basin.

Restoration ramps up

For years, Mono Lake Committee staff have monitored Mill Creek's surface flow and water quality, and pulled invasive plants growing along the banks. This spring the Committee received a generous grant from outdoor clothing company, Patagonia, to fund additional restoration work on Mill Creek. With this added support, an enthusiastic team of Committee staff, volunteers, and youth from Lee Vining and Los Angeles will clear out invasive species such as white sweet clover and bouncing bet to make room for planting native Jeffrey pine, black cottonwood, and quaking aspen seedlings.

The Patagonia grant will help cover the purchase



Volunteers pull invasive plant species along the banks of Mill Creek.

of native plants, as well as staff time to lead groups of volunteers and educate students, and supplies like trowels, gloves, and weed wrenches.

What happened to the water?

Mono Lake's third largest tributary stream, Mill Creek is unique in the Mono Lake story because it was never diverted to Los Angeles. Instead, from Lundy Lake Reservoir, up to 70 cubic feet per second of water is piped to the Lundy hydropower plant to generate renewable energy.

The way hydropower works in California is that after passing through the turbines, water is required to be returned to the waterway of origin—in this case, Mill Creek. So, when the hydropower plant was constructed in 1911, an unlined return ditch was built to carry the tailrace flows back to Mill Creek.

At that time ranches holding water rights to Mill Creek also used the water discharging from the hydropower plant as a convenient access point for their irrigation ditches. Over time, the return ditch deteriorated, gradually losing capacity until it ceased to function. Without a feasible way to return Mill Creek's water after it generated power, too much water went down the irrigation ditches—dewatering Mill Creek, eroding the Wilson diversion system, and burying the Black Point marsh under tons of sediment (see Winter & Spring 2010 *Newsletter*).

Bringing the water back

Now SCE's hydropower improvements are poised to make restoration a reality for Mill Creek. The buried pipeline will improve water efficiency and follow the path of the original return ditch to minimize disturbance. Once the necessary permits are approved, initial site preparation and construction could begin as early as this fall. ❖

What you can do

To volunteer at Mill Creek contact Office Director Rose Catron (rose@monolake.org) at (760) 647-6595.