

The Importance of Restoring Mill Creek

Bringing Back the Bottomlands

by Lisa Cutting

As the Mono Lake Committee continues to seek the return of significant flows of water to Mill Creek through ongoing settlement negotiations, staff members are often asked: “Why is it important to restore Mill Creek?” “What are the benefits of restoring Mill Creek?” And “How can restoration be achieved?”

Mill Creek, quite simply, is the most significant restoration opportunity in the Mono Basin today.

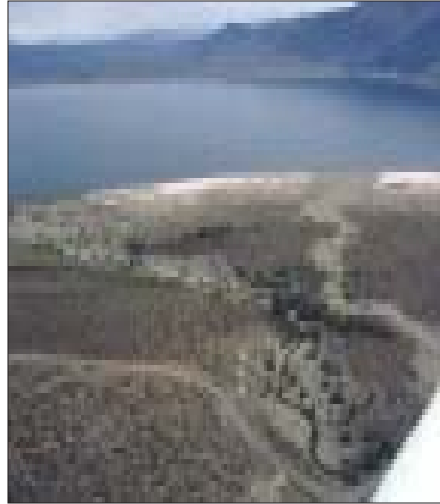
Restoration has many wildlife and ecosystem benefits, and Mill Creek is particularly notable because it holds an even greater potential for major restoration of its bottomlands and delta than Rush and Lee Vining creeks.

The multiple-channel, cottonwood-willow riparian system of the Mill Creek bottomland and delta has been degraded by a century of water diversions for hydropower and irrigation. The return of significant water to the creek will offer an opportunity to restore a vital environment that has been virtually eliminated in the Great Basin and that will provide vegetation diversity and a critical life-line for mammals, birds, amphibians, and fish in the north Mono Basin.

The restoration work that’s been done on Rush, Lee Vining, Parker, and Walker creeks by the Los Angeles Department of Water and Power in the south part of the Mono Basin has shown how quickly degraded habitats respond when reasonable stream flows and multiple channels are reinstated.

Historic Mill Creek

Mill Creek is 14 miles long and is Mono Lake’s third largest tributary stream, draining a watershed that produces an annual average of 22,000 acre feet of water. Originating at the Sierra crest, Mill Creek bisects Lundy Canyon as it makes its way down to Mono Lake—flowing through Lundy Lake on the way.



Airplane overflight shows two Mill Creek channels approaching Mono lake, one dry, one nearly so.

Like Rush and Lee Vining creeks, Mill Creek has a delta at its mouth and an “inner delta” that extends upstream from Mono Lake for nearly two miles. It is in this “inner delta” area of multiple channels that stream flow was distributed across the valley floor and created a bottomland environment which under natural conditions, according to Dr. Scott Stine, created “a mosaic of dense riparian forest, wooded wetland, high water table marsh, and backwater morass, all intertwined with narrow, root-bound distributaries of sluggishly to vigorously flowing water.” (see Spring 1996 *Newsletter*)

Importance of Cottonwood-Willow Riparian Habitat in the Great Basin

Cut-off from the moist Pacific storms by the Sierra Nevada, the Great Basin is an arid area of sagebrush steppe and desert. The runoff from the Eastern Sierra was once abundant enough to support many large terminal lakes and the inflowing streams supported cottonwood-willow riparian ecosystems—oases in an otherwise dry environment. Near the lakes, the streams spread out into the rich and diverse

bottomlands and according to Stine, “the size, complexity, and continuity of natural deltaic bottomlands, coupled with their proximity to lakes, make them arguably the most biologically diverse type of environment in all of the Great Basin.” (see Spring 1996 *Newsletter*).

By the time the importance of the Great Basin bottomland environments was recognized they had already been largely eliminated by water diversions that began a century or more ago. Cottonwood-willow riparian habitats have declined by over 90% in North America, which only serves to underscore the critical need to maintain and restore these remaining areas.

Restoration Goals for Mill Creek

The Committee’s over-arching restoration goal for Mill Creek is to restore the form, function, and processes of Mill Creek with an emphasis on the cottonwood-willow riparian habitat and specifically the wooded wetlands of the Mill Creek bottomlands. This is best achieved by rewatering Mill Creek’s natural stream course with flows sufficient to achieve a multi-channeled bottomland and year-round freshwater conditions in Mill Creek’s delta near Mono Lake.

Restoration results would include:

- Re-establishment of wooded wetlands in the bottomlands;
- Groundwater recharge throughout Mill Creek’s bottomland and delta that would sustain a wide area of wetland vegetation and surface water features well away from the main channel;
- A productive fishery in Mill Creek;
- A freshwater environment in both the inner and outer deltas of Mill Creek as well as a freshwater skim off the mouth of the creek that will be particularly important for migrating waterfowl during the fall and winter months.

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and litigation, up until the present day, where visitors can see a lake that is on the mend—there has been a consistent and overriding feeling of hope. A feeling that is best experienced sitting in a canoe, quietly paddling over clouds of brine shrimp and the upwelling of spring water from submerged tufa towers.

Educating the public about the wonders of Mono Lake has always been at the forefront of the Mono Lake Committee's mission. From the beginning, David and Sally Gaines took visitors out onto Mono Lake, so the lake could speak for itself.

In 1978, the Mono Lake Committee started half-day field tours that included an off-shore paddle among the tufa towers at what is now called South Tufa. David's canoe played host to California Assemblymen, State Legislators, writers, photographers, and many of the key players in the legal battles to restore Mono Lake and its streams. In 1989, weekend interpretive canoe tours were started, and continue today. The Committee's Education Programs have taken over two thousand Southern California students out onto the lake, giving them the opportunity to learn about Mono Lake's vibrant ecosystem and the importance of water conservation. All in all, hundreds of people have had the opportunity to sit in David's canoe and see first hand why Mono Lake was worth saving.

Back when David Gaines was canoeing at Mono Lake, the pressures on the lake were obvious—either Los Angeles curtailed their diversions of water from the Mono Basin, or the lake was going to die. But David had a sense that the more people who heard about Mono Lake, the more people's impacts would be felt. Aldo Leopold once said, "Of what avail

are forty freedoms without a blank spot on the map?" In a 1979 newsletter article, David wrote: "Mono Lake is as blank a spot as you can find anymore. Though the hand of man hangs heavy over its future, Mono still retains the magic and power of primeval America. I wonder whether this elusive and precious quality can survive with large numbers of people, however well-intentioned?"

Ice Age Mono Lake only had one island—Cedar Hill. Separated from Mono Lake thousands of years ago, this remnant of ancient times is facing the pressures of development. The west shore of Mono Lake is in danger of being impacted by road improvements and subdivision. Just when the old lake is starting to relax, new and inevitable events are on its horizon. What would David Gaines think? Reunited with his canoe, paddling the mirrored image of today's Mono Lake, would he sigh with resignation, or would he dig his paddle in deeper, and continue the fight he started 26 years ago?

Like an old soldier after a long campaign, David's canoe has been retired. It has taken a long journey and deserves a rest, but like all things at Mono Lake, the future is uncertain. The old canoe may yet be pressed back into service, and I think both David and his canoe would be grateful. ❖

Douglas Dunaway is the Committee's Staff Assistant. He is looking forward to the time when the Committee's canoes are no longer encased in snow and are ready for paddling season.

The Committee's Restoration Principles

The Mono Lake Committee believes that the best and most cost-effective method of restoration is re-establishing natural processes. This is the same guiding approach being used in the restoration of Rush, Lee Vining, Walker, and Parker creeks.

While some water diversions will continue from all of Mono Lake's creeks, the goal of re-establishing natural processes provides important guidance towards how and when water is diverted. This means re-establishing peak flows and maintaining base flows on the creeks. These give the creeks enough energy to recreate their former habitats without significant intervention or continued maintenance.

When past degradation is such that it is difficult to reinstate natural processes, the Committee supports a limited helping hand, such as reopening side channels to raise water tables and provide complex habitat, or planting native vegetation to jump-start streambank recovery. These principles have been applied successfully on Mono Lake's other tributaries, leading to the recovery of a more natural condition, and the Committee is anxious to begin restoration work on Mill Creek once a settlement is reached.

Current Status of the Settlement Process

Talks continue as all parties remain committed to the process of resolving an almost 20 year-old Federal Energy Regulatory Commission relicensing procedure while simultaneously developing a comprehensive water management plan for the north part of the Mono Basin (see Spring 2003 *Newsletter*).

The parties—United States Forest Service, Southern California Edison, Bureau of Land Management, Mono County, California Department of Fish and Game, American Rivers/California Trout, People for Mono Basin Preservation, and the Mono Lake Committee—all have diverse interests and goals. The primary challenge has been (and will no doubt continue to be) that of effectively balancing water between competing uses and determining how best to distribute that water to benefit both the existing natural systems and the goals of the water rights holders. ❖

Lisa Cutting is the Committee's Eastern Sierra Policy Director. The warm spring days are a gentle reminder that fly fishing and hiking are "right around the corner" as Bartshé—the office weather soothsayer—would say.