

# DRY TIMES AT



**GROUNDING:** The splintered shell of an old fishing boat (above) sits on what was once the bottom of Nevada's Walker Lake. Signs posted on the

# WALKER LAKE

A vital wildlife oasis in the sagebrush desert of western Nevada is fast disappearing



LIN ALDER

By Mark Cheater

**S**OMETHING is wrong with Walker Lake, and the signs are everywhere. Literally. They are posted along the highway above the western shore of this 13-mile-long lake in western Nevada, and down a road to a water-side park: "LAKE LEVEL 1927." "LAKE LEVEL 1944." "LAKE LEVEL 1967." Each marker lower than the last, the signs trace Walker's fall by more than 100 vertical feet to where the lake's cool green waters now lap on a concrete boat launch.

Mike Sevon, a biologist with the Nevada Division of Wildlife, stands next to a breakwater near the boat launch. "When we were here last September, the lake was right here," he says, pointing to a line on the wall more than two feet above the current water level. "Where we're standing now, we would have been thigh deep in the lake back then."

A few feet away, young Lahontan cutthroat trout sputter listlessly in the water. Sevon's colleagues have just trucked 20,000 of the silver-green fish from nearby hatcheries and released them into the lake. (The trout stopped breeding here after a dam was built upstream on the Walker River in 1934, blocking their spawning run. They are now listed as a threatened species.) As

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mark the lake's precipitous decline.



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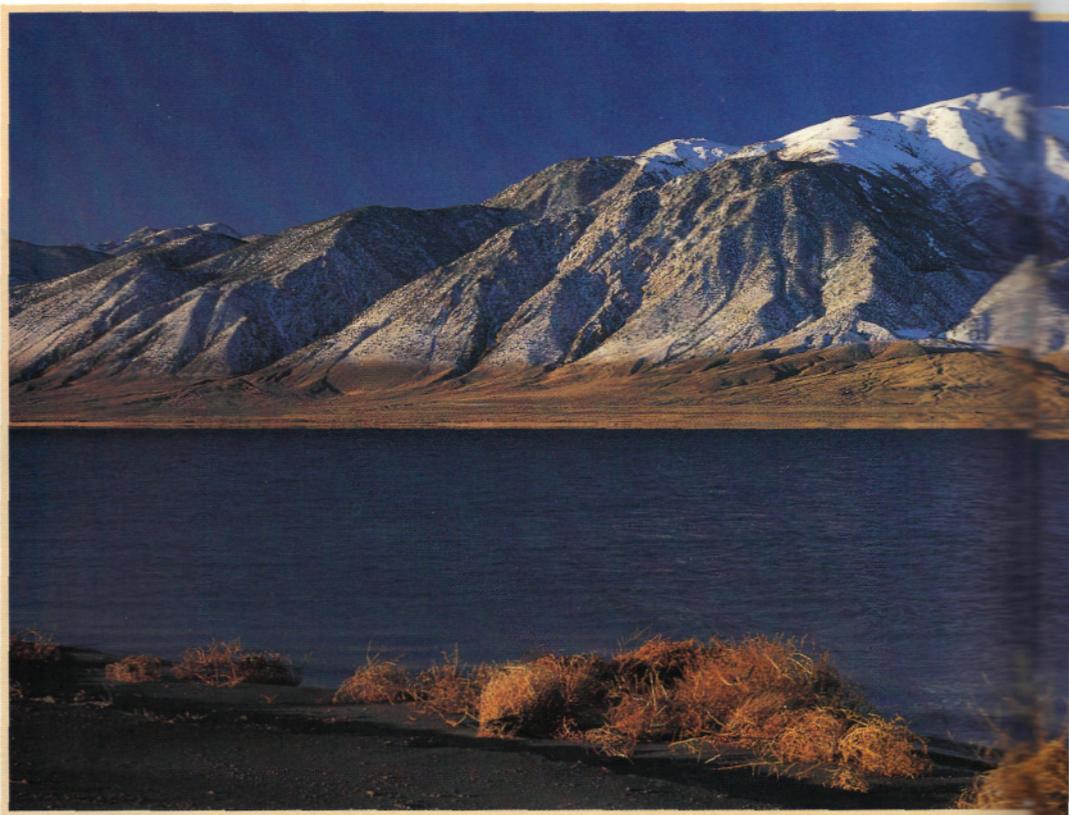
**NWF Priority**

**Keeping Walker Lake Wet**

*Protecting the common loon (above, feeding on a tui chub) and other wild denizens of Walker Lake is an important part of NWF's conservation efforts in the West. At the urging of a state affiliate, the Nevada Wildlife Federation (NVWF), delegates at NWF's annual meeting last March passed a resolution calling on the states of Nevada and California and the federal government to take aggressive action to increase water flows to Walker Lake.*

*In April, NVWF helped U.S. Senator Harry Reid (D-Nevada) facilitate a symposium to educate the community and national conservation leaders about the lake. NVWF is now working with the Coalition to Save Walker Lake, a group that formed after the Reid symposium.*

*For more information on how you can help save Walker Lake, see [www.nwfw.org/issues/iss\\_wlkr2.htm](http://www.nwfw.org/issues/iss_wlkr2.htm).*



Walker Lake has dried up, the water has gotten so salty that the hatchery trout must now be gradually accustomed to it before they are released each spring, or most of them will die. If the water gets much saltier, the biologist warns, it will poison not just the trout but also the lake's remaining native fish, tui chub—and threaten the loons, pelicans, grebes and other birds that depend on them. As one of the few large bodies of water in the intermontane West, "Walker Lake is unique," says Sevon. But unless steps are taken soon, he adds, "I think the lake as we know it will die."

Most of the water that formerly flowed down Walker River to the lake is now diverted onto tens of thousands of acres of fields upstream, where farmers raise alfalfa, onions and garlic, and ranchers graze cattle. Government rules and court decrees over the past century have divvied up rights to the Walker River's water among hundreds of these agricultural users, and left little or nothing for the lake's wild residents. "Western water law is designed to encourage agriculture," says local conservationist Lou Thompson. But Thompson and other citizens, along with key public officials, are trying to reverse the fortunes of this wildlife oasis. Says

Thompson: "We'll search every legal avenue we have to get water for the lake."

Walker Lake is in part a victim of its own geography. Sited incongruously in the middle of the desert, the teardrop-shaped lake depends largely on rain and snow-melt from the juniper-studded peaks of the Sierra Nevada range about 50 miles to the west. Before the arrival of white settlers, these waters flowed unimpeded down the mountains and through the sagebrush and salt grass to the lake—replenishing the millions of gallons lost to evaporation each year. These waters sustained a rich fishery of tui chub, Tahoe suckers and cutthroat trout. The latter were so large and abundant that the native people (now known as the Walker River Paiutes) referred to themselves as *Agai Dicutta* (trout eaters) and the lake as *Agai Pah* (trout lake).

The lake and its fish also acted as a magnet for birds in the parched Great Basin. Pelicans, grebes, gulls and common loons rested, drank and fed here—and still do so today. Loons are probably the most significant of Walker Lake's winged visitors—more than 1,000 of the plaintive-calling birds stop here each spring and fall to rest and refuel on their way to and from Canadian nesting grounds. This



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is the largest concentration of loons in the interior of the country, experts note.

When Europeans moved into western Nevada in the mid-nineteenth century, they began diverting the waters on which the Indians and the fish and the birds depended. The government, eager to tame the desert, offered free land to settlers. Steve Fulstone's forebears were among those who moved to the area and began raising alfalfa and livestock. "My ancestors came to this valley in 1903," says the lanky, fifth-generation farmer and rancher. "There's a lot of history here."

Today, Fulstone and his neighbors in Lyon County are Nevada's leading agricultural producers, bringing in more than \$65 million a year. But this bounty has come at a price. Farmers siphon off about 90 percent of the Walker River's flow to water their crops and cattle. (The Walker River Paiute tribe, whose reservation covers the lower portion of the river, gets about one percent, and most of the rest is lost in transit.) As a result, little water reaches Walker Lake—in dry years, none at all.

As the spigot to Walker Lake has been turned off over the past century, the lake's level has declined by 142 feet, and its volume has shrunk by more than 70 percent. More troublesome for wildlife,

the water has gotten saltier. "The lake is like a bowl with salt and water in it," Sevon explains. "As the water decreases, the concentration of salt increases." Walker Lake is now about five times saltier than it was when first measured in 1882. If the salt concentration gets much higher, Sevon says, it will start killing off the trout and chub that draw large populations of birds here.

"It's a highly attractive and highly functional staging site for migrating birds," says Larry Neel, a Nevada Division of Wildlife biologist. "The fish concentrations are phenomenal and readily available." In addition to the 1,000 or so loons that come through each year, the lake also hosts between 2,000 and 9,000 migrating Clark's grebes each fall—as well as eared grebes, double-crested cormorants and white pelicans, Neel notes. Asked if the lake's decline has harmed these birds, the scientist says, "It's hard to tell if there's been a measurable impact, because their populations fluctuate a lot."

Lou Thompson doesn't want to wait until there is a measurable impact on birds. He has seen enough. Like Fulstone, his father and grandfather were farmers and ranchers here. But Thompson left Nevada many years ago to go to college



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**S**ALTED FISH: Nevada biologist Pat Sollberger (above) holds the carcass of a young cutthroat trout killed by the lake's briny water. As this seemingly pristine lake (top) has declined over the decades, the salt concentration has increased so much that hatchery trout must be acclimated slowly before they are released. If the lake level falls much farther, all its fish may soon perish.

and then work for the federal government. He returned regularly, "and every time I'd come back to visit I'd see the lake a little lower," he recalls. He retired and moved back to Hawthorne, near the southern end of the lake, in 1990. In 1993, he read an article about Walker Lake in the local paper that quoted Mike Sevon.

"He said if the lake didn't get water, in five years we'd lose our fishery," Thompson recalls. "I said, 'Who's doing something about that?' I couldn't find anyone, so I did some agitating, got some people together and it took off from there."

Thompson helped form the Walker Lake Working Group, an organization of concerned citizens seeking a secure supply of water for the lake. The group would prefer to negotiate with farmers upstream about ways to increase the flow, including finding alternatives to water-intensive crops such as alfalfa. "The challenge is getting reasonable people to sit down and talk about alternatives," Thompson says. Talks are planned among representatives of farmers, conservationists, Indians and the federal and state governments. But, Thompson notes, "Those talks could take a long time—we could lose our fishery while we're talking." So the Walker Lake group is also pursuing a lawsuit in federal district court in an attempt to increase flows.

In the meantime, the federal Bureau of Land Management (BLM), which oversees much of the land around Walker Lake and Walker River, is working on a separate track to find solutions to the problem. "If we have another dry winter, we're going to be in deep trouble," says John Singlaub, manager of BLM's Carson City office.

Singlaub's office is currently preparing an Environmental Impact Statement that analyzes a number of alternative solutions. These include everything from cloud-seeding to create more precipitation in the area, to lining irrigation ditches to cut down on water losses, to encouraging farmers to plant less water-intensive crops, to buying and leasing water rights from farmers.

To fund these potential actions, U.S. Senator Harry Reid (D-Nevada) has included a \$200 million appropriation in the 2002 Farm Bill (signed into law last spring) earmarked for both Walker Lake and Pyramid Lake, a larger body of water to the north facing similar problems. "It's



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**F**LOW AND EBB: Most of the Walker River's flow is diverted onto tens of thousands of acres of farmlands such as this alfalfa field (above). As a result, little or no water reaches the lake. Farmers are reluctant to switch to less thirsty crops or sell their water rights, citing potential economic and social disruption. Conservationists note that the lake and its fish serve as a magnet to loons, pelicans, ibis (right), grebes and other birds, and they are fighting to secure water rights for these wild creatures.

in a state of distress," Reid says of Walker Lake. But, he adds, "we're not going to let it die—we're going to revive it."

Fulstone and other farmers have reservations about the various plans to save Walker Lake. They are reluctant to switch to less thirsty crops such as Indian rice grass (a native plant). "I just see a lot of expense for something that would probably have very little return," Fulstone says. He also has concerns about BLM's proposals to buy water rights from farmers. "The irrigation systems are connected," he says. If farms go off-line, "the delivery systems would be impacted, the taxation systems would be impacted. You start losing the community base."

Some in the agricultural industry are advocating less disruptive methods for getting more water to the lake. Tony Tipton, a rancher and board member of the Nevada Wildlife Federation (an NWF affiliate), believes that restoring vegetation in the Walker River watershed through re-seeding and cattle grazing will help. Tipton and the Nevada wildlife group hope to start a demonstration project on the Walker River Paiute reservation. "When you start to manipulate this area, you'll have plants all over," and this will lead to increased flows in the river, says Tipton.

Tribal leaders express interest in the program, and also point to other potential steps to conserve water. Thousands of acres of reservation land are infested with tamarisk, an invasive, exotic tree that sucks up valuable water. "We're very concerned about Walker Lake," says tribal leader Robert Quintero. "Walker Lake is considered home for the Walker River Paiutes—that's where we originated."

Mike Sevon is also very concerned—and he's not optimistic. "I think we're going to lose the fishery before we raise the ire of the public enough to get something done about changing water rights in the basin," he says, watching gulls wheel over the water and pick off trout hatchlings. "The thing that will bother the conscience of people of the United States is knowing that it was the result of man's actions and that we could have done something. Hopefully we will do something sometime in the future."

*Senior editor Mark Cheater visited Walker Lake last spring to report this story.*