By Craig Springer

Reading Between the Lines Historic memo proves prophetic

Fort Apart Indian Agency, Whiteriver Arizona, February 15, 1935.

Commissioner of Indian Affairs:

We, the Council of the White Mountain Apache Indians, after having thoroughly explained to us your letter of February 8, 1935, and the Bill introduced by Carl Hayden, Senator from this State, recommanding the appropriation for the purpose of establishing a Federal Fish Hatchery on Williams Creek, on this Reservation, hereby lend our support and approval of the location of a Fish Hatchery, as we feel that it would be a benefit to the reservation.

We are favorable to granting for an indefinite period the use of the location desired by the Federal Bureau of Fisheries on condition that a reasonable effort will be made to keep all streams on the reservation well stocked with mountain trout; that insofar as possible Indians of this reservation be favored with such labor as they can perform at commercial wages; that in the purchase of worthless ponies the Hatchery give Indians preference in supplying the same.

We will gladly donate sufficient pasture wherein this Federal Hatchery may keep a supply of ponies on hand, requesting only that the government pay us the prevailing price for these ponies.

With the above mentioned consideration we feel that the proposed Federal Fish Hatchery will be a benefit to the reservation as well as the surrounding community, and we wish to go on record as favoring and cooperating with the Federal Government in establishing this proposed Hatchery where designated on this reservation.

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Chief, Turkey Creek District.	the second se

This 1935 letter from the White Mountain Apache Tribe to the Commissioner of Indian Affairs states the Tribe's desires to support fisheries conservation on their land.

You don't have to read between the lines of a 1935 memo from the White Mountain Apache Tribe to the Commissioner of Indian Affairs in Washington, D.C., to understand the Tribe's desire. It's all there in the kerned words strung along through four short, tilted paragraphs. They wanted the U.S. Bureau of Fisheries to build a hatchery on their land for the purpose of employment. The tribal council understood the potential economic outcomes, maybe not in the modern metrics that economists measure things today. but intuitively they understood that fisheries conservation work and improved fishing close to home translated into jobs.

Consider the context of time: America was in the throes of the Great Depression, six years into it when the missive was drafted. The Apaches asked that they supply the labor force to produce trout for what is arguably still today a tremendous place to intersect with nature-the high country of eastern Arizona. Forget the iconic saguaro cactus associated with the Grand Canyon State, this place is populated by ponderosa pine, blue spruce, and white fir atop tall mountains that capture soppy winter snows. Trout do best in pretty places, and the White Mountain Apache Tribe's land is just that.

Then there's the odd clause in the memo about supplying "worthless ponies." Feral horses were harvested and reduced to cuts of meat, allowed to rot and become a base whereby flies could lay eggs. Eggs became maggots, and maggots fish food. With science and its offspring, technology, diets for fish in hatcheries have improved greatly since then (see *Eddies*, Fall 2008).

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Bradley Clarkson, a fish biologist and member of the White Mountain Apache Tribe, has had his hands in Apache trout conservation for the last 16 years.

And look at the signatories, the names of the Apache chiefs of the tribal council. Sadly only two of them were literate—all the others signed the memo with a thumb print. But the tribe succeeded in their quest. Construction of Williams Creek National Fish Hatchery commenced four years later, largely built by a product of the Depression, young men in the Civilian Conservation Corps. In June 1941, rainbow trout eggs arrived by rail from Eagle Nest, New Mexico, and Yellowstone

cutthroat trout from the national park. Also that same year, hatchery biologists took a stab at culturing the "Arizona native trout," what we have since come to recognize as the Apache trout. It's a threatened species, and like the White Mountain Apache people, its association with this place is steeped in time. You'll find the yellowish, black-flecked trout nowhere else in the world but here.

In fish biologist Bradley Clarkson is the embodiment of what his tribal

ancestors desired. Clarkson is a 16-year veteran employee of the U.S. Fish and Wildlife Service. He holds a bachelor's degree in Fisheries Science from the University of Arizona. He's a family man, married, a father of three and granddad to one. Clarkson grew up hunting and fishing and playing baseball and still does a little of all that. He's a right fielder for the all-Apache team, the *Turkey Creek Expos*. They travel to Phoenix and Tucson and to other Indian reservations to play the game. On





Apache trout naturally occur only in the White Mountains of eastern Arizona. Given species recognition by science in 1972, this unique trout had been known to the Apaches and interlopers a century before. U.S. Army Lt. Britton Davis wrote that streams near his 1885 camp "were alive with mountain trout. There were literally thousands of them for every mile or two of creek."

The Arizona Fish and Wildlife **Conservation Office is the lead** field station for recovery of Apache trout. Working with the State, Tribe, and Forest Service, we improve Apache trout populations through construction and maintenance of artificial barriers used to isolate **Apache trout from nonnative** fishes: remove nonnative fishes from within recovery populations; restore stream and riparian habitats; and provide angling opportunities in lakes and streams for Apache trout produced by Voeltz

the job, for the last decade and a half he's worked where early Williams Creek biologists couldn't get traction: Apache trout culture.

Bob David, a now-retired fish biologist, mastered Apache trout culture in captivity in 1984, at the request of the Apache Trout Recovery Team. The team is a body of fisheries professionals that direct conservation work on the fish with the single focus of getting the animal off the list of threatened species.

Clarkson carries on. The broodstock of Apache trout now at the hatchery is well developed. It's customary that Clarkson and others at the hatchery are spawning Apache trout in December. Williams Creek Spring makes this all the more easy; it gurgles out of the ground under a pitched-roof protective cover at a constant 52 degrees. The water mixes with air through aluminum baffles, gets injected with oxygen, and lastly disinfected by ultraviolet in place of harsh chemicals by passing through pipes lit up with special light bulbs. The spring water still only a few feet downhill from its natal rocky fissure, passes over Apache trout of a variety of sizes residing in concrete raceways.

According to Clarkson, the spring was a traditional Apache site for drinking water and for bathing. The water is in a peculiar way still a source of vitality for the people, but in a larger sense. The Apache trout produced from the spring at Williams Creek National Fish Hatchery don't go far, being stocked out in waters managed by the White Mountain Apache Tribe, the U.S. Forest Service, or the Arizona Game and Fish Department. The native fish have a following of anglers. But they are not the only fish raised there. Rainbow trout, brown trout, and brook trout still come from the hatchery, but to a far less degree since Apache trout rose in prominence.

The nearby and much newer Alchesay National Fish Hatchery also raises trout for much the same purpose, the rainbows, browns, and brookies going to Indian reservations in the Four Corners states. All told, these trout support a tremendous sport fishery with measureable economic outcomes. Here is one such measure: in 2006, economist Dr. James Caudill with the U.S. Fish and Wildlife Service learned that for every taxpayer buck spent on trout at these two hatcheries, it generated some \$19 in retail sales, and that implies jobs.

Looking over that 1935 memo with the thumb prints, and reading the direct nature of the message saying essentially, 'a hatchery will stimulate the economy,' it appears that the tribal council got what it was after.

The ponies are gone. Trout eat food created by Ph.D. nutritionists, and fisheries management has moved away from art towards science. Clarkson has the enviable position of doing something he loves, something the men a couple of generations ahead of him wanted him to do. It's poignant that men who could not read, stamped in ink their unique thumb prints, in a way giving a seal of approval ahead of the fact. ◆



A large tank truck distributes Apache trout from Williams Creek National Fish Hatchery to points nearby.



Water percolates over rainbow trout eggs as they incubate indoors. These eggs arrived by post from White Sulphur Springs National Fish Hatchery in West Virginia, underscoring that the 71 National Fish Hatcheries operate as a "system."

Craig Springer/USFWS

