

ELK CREEK WATERSHED HISTORY NARRATIVE

(Jeff Lalande, Rogue River N.F., April 1996)

Introduction: The following narrative provides a brief review of the human prehistory and history of the Elk Creek watershed. Rather than concentrate on social history or interesting anecdotes, the narrative focuses on aspects of environmental history (i.e., especially human interactions with and impacts to the local ecosystem).

First, some definitions are in order: The narrative uses the general term "Elk Creek watershed" or Elk Creek drainage" in reference to the entire watershed area. The term "**lower** [Elk Creek] watershed" (or drainage) applies to the lower (southern) two-thirds of the overall area--i.e. to the area composed largely of privately owned and B.L.M.-administered lands. Within the lower watershed area is a much smaller area called the "Elk Creek **Valley**"; the valley includes the approximately 8-mile long valley floor of lower Elk Creek and the adjacent foothill slopes up to about 2,000' in elevation. The "**upper**" area of the watershed includes its northern one-third, almost all of which consists of National Forest land, (extending to the highest portions of the Rogue-Umpqua (or Elk Creek-Jackson Creek) Divide, between Hawk Mountain and Whaleback Mountain). All but the northeastern-most extremity of the Elk Creek watershed (Douglas County) is within Jackson County, Oregon.

The Elk Creek watershed is composed of two major kinds of terrain: (1) a small area of generally level, easily accessible alluvial terraces along the valley floor and (2) the rugged, steep topography that makes up most of the remainder of the drainage. (Within the latter type of terrain, narrow stretches of land along certain stream courses and ridge-crests provide the only "gentle" terrain.)

Over the centuries the Elk Creek Valley, located adjacent to the upper Rogue River, has lured many people away from the banks of the main river. The mountainous character of the rest of the watershed has served to limit most human occupation (aside from seasonal, short-term resource uses) to the valley itself. Nevertheless, the comparative small size of the Elk Creek Valley--coupled with its location along one of the less-accessible, more-remote stretches of the Rogue River--has from prehistory until the present time, apparently limited the permanent population of the valley to--at most--a few hundred people at any one time.

1. Prehistory and Native Groups (ca. 10,000 years before present to A.D. 1827)

During the 1970s-80s, most of the land within the Elk Creek Valley (including many of the foothill slopes) was intensively surveyed for archaeological sites. Forest Service and B.L.M. timber sale projects during the 1980s have resulted in archaeological survey of substantial acreages in the higher elevations of the watershed as well. Therefore, compared to most other drainages in southwestern Oregon of similar size, the archaeological character of the Elk Creek watershed is relatively well known.

The first human beings--people whom archaeologists call the "Paleo-Indians"--almost certainly had come to southwestern Oregon by about 13,000 to 10,000 years ago. Although no sites or artifacts clearly linked to the Paleo-Indians are documented for the Elk Creek watershed, it is likely that these early, very small and mobile populations were at least occasionally present within the area.

U.S. Army Corps of Engineers-sponsored archaeological excavations within the Elk Creek Dam project area have yielded large amounts of data and several lengthy reports. In brief, the excavations found evidence of several small base-camps or winter villages (which included housepits and other residential features), as well as a number of smaller "task-specific" sites (e.g., where chipped-stone tools were

made). The sites date to relatively late in prehistory, the past 2,500 years or so. Most residential sites were located on the broad, wide alluvial terraces on the west side of Elk Creek. (Compared to the narrow east-side portion of the valley, the west side's gentler slopes, more abundant springs, and more diverse vegetation habitats of the west side of the Valley have been the focus of most prehistoric human occupation, thus anticipating a settlement pattern that existed in the nineteenth and twentieth centuries as well.)

Although little or no actual evidence of fishing was found by the Corps of Engineers' excavations, the nearby Rogue's anadromous fishery may have been a key factor in the people's seasonal use of the Elk Creek Valley. Additionally, from the small villages or base-camps in the valley, native people would have radiated out in small groups to hunt game, gather edible plants, and procure other useful resources found within the entire Elk Creek watershed during the summer and fall. (As with the "west-side" location of prehistoric sites, this seasonal-use pattern of the larger area anticipated somewhat similar patterns of the historic period.)

Outside of the low-elevation valleylands, archaeological sites within the watershed's uplands tend to be very small, sparse, shallow scatters of lithic debitage (debris from the making of chipped-stone tools), containing only a few recognizable tools. The location of most upland sites indicates that, once people ascended out of the Elk Creek Valley, most of their travel followed major ridges leading toward the Rogue-Umpqua Divide. Some of these sites were probably seasonally used camps, others perhaps were simply single-episode "bivouacs" or places occupied for less than a day during wide-ranging hunting/gathering. Large meadows and other openings along the Rogue-Umpqua Divide (the crest of which provides a comparatively easy travel route to other major watersheds of the upper Rogue and Umpqua basins) contain some of the largest upland sites.

Elk, deer, and other game were taken in group drives (often using dogs to help force the animals into brush enclosures). Acorns, hazelnuts, chinquapin nuts, sugar pine nuts, camas and broadia bulbs, yampa roots, serviceberries, and huckleberries formed the most important vegetable portions of the native diet. Fire was used to drive game and to enhance the browse vegetation the animals fed on. Anthropogenic fire also served to create, maintain, or restore favorite plant-gathering areas, such as oak groves and meadows. (For example, it is likely that human-set fire served to preserve the California black oak component of the transition/mixed-conifer forest--a component that has been adversely affected by conifer overtopping during the twentieth century.)

The headwaters of Elk Creek contain scattered deposits of good-quality "chippable" stone (i.e., cryptocrystalline silicates such as "jasper" and "agate") within the volcanic flows and tuffs. This material was an important raw material for native men; they may have quarried some of it from outcrops at Elkhorn Peak and elsewhere, but they probably obtained most of their jasper as alluvial nodules found in the stream gravels of lower Elk Creek.

By late prehistoric times (the last 1,000 years before arrival of Euro-Americans), the major groups occupying or seasonally using the Elk Creek watershed would have been the Upland Takelma (or "Latgawa") and the Southern Molalla. The Cow Creek Indians (evidently a Takelman-speaking group) would have entered the uppermost portions of the watershed from the Umpqua drainage to the north; the Butler Butte vicinity in particular was an important seasonal-use area for the Cow Creeks.

In summary, native inhabitants of the Elk Creek vicinity used the area's resources over the course of ten-thousand years or more. Although the use patterns involved--to the modern eye--very little impact on the land, active resource management included the long-term and intensive use of fire, particularly in the lowest- and highest-elevation vegetation communities of the watershed. The open, "park-like" character of oak and pine stands in the Valley owed much to regular anthropogenic fire.

2. Euro–American Exploration and Early Use (ca. 1827–1870s)

The first arrival of Euro–American explorers into the Rogue River basin occurred in early 1827, when fur trappers of the Hudson's Bay Company's "Snake Country Brigade" traveled through the Rogue River Valley. Led by Chief Trader Peter Skene Ogden, the expedition ascended the river toward its headwaters. Although Ogden himself probably did not travel any further upstream than about the present site of Shady Cove, some of his men pushed on until deep snow forced them back a few days later. These men probably got at least to present-day Prospect, and they may have briefly reconnoitered the lower Elk Creek Valley during this trip. Later trappers, during the 1830s–40s, may have occasionally taken beaver from the lower Elk Creek and its tributaries. Trapping during this period was done without regard to sustaining the beaver population; if early–day trapping indeed took place in the watershed, it likely resulted in a substantial decrease in beaver numbers (and hence in beaver–caused streamflow characteristics along the lower creek) well before the first Euro–American settlement of the area actually occurred.

Euro–American agricultural settlement in the Rogue River Valley—stimulated by the simultaneous discovery of gold in the nearby Siskiyou Mountains—began in the early 1850s. A few Rogue Valley settlers traveled the Upper Rogue during this decade, looking over the country and searching for good transportation routes over the Cascade Range. By the early 1860s, a few very small, seasonally occupied "ranches" were scattered along the Upper Rogue between Eagle Point and Flounce Rock—among them that of Hiram Abbott (now beneath the waters of Lost Creek reservoir). (It would seem likely that a similar small, summer–ranch operation may have been established this early at or near the mouth of Elk Creek, but documentation is not available.)

During the 1850s–60s, with the main Rogue Valley "settling up," the Elk Creek watershed became a favored "hunting ground" for residents of Jackson County. Deer and elk (hence the name of the creek) were apparently abundant; the place–names "Abbott Prairie," "Elkhorn Peak," and "Bitterlick Creek" probably also date to this time. The attractive qualities of the Elk Creek area, although "just off the beaten track" (i.e., the Rogue Valley's main wagon road over the Cascades to eastern Oregon), became known at this time. However, human presence in the watershed was very light and short term, consisting largely of small groups of hunters.

3. Initial Agricultural Settlement of Elk Creek Valley (ca. 1880–1905)

The gentle oak–studded valley (with its abundant grass and alluvial soil) and the high–country meadows probably attracted the notice of hunters for more than the simply the watershed's plentiful game. As prime cropland in the main Rogue Valley was homesteaded and land prices rose during the 1860s–70s, later settlers (or, in some cases, the grown children of early settlers) sought "free land" in more remote sections of Jackson County. Farm families began to homestead the Elk Creek Valley in the 1870s and early 1880s. Among the first were the Geary, Winningham, and Johnson families. These farms were small operations, typically consisting of a few hay fields, a small orchard, a garden of hardy vegetables, and perhaps a small plot of corn or grain; livestock were the mainstay of Elk Creek farms. The Valley's 1880–1919 population supported several one–room schoolhouses along the creek, as well as a post office or two (e.g., Persist and Alco), usually located in some settler's cabin. After the initial flurry of settlement in the Valley (ca. 1880–1900), a second influx occurred immediately after the turn of the century, focused in the upper portion of the Valley. Many of these people homesteaded on land that was obviously marginal for agricultural purposes. After obtaining patent to their claims, many of these short–term settlers sold their property to the Big Bend Milling Company and what later became the Elk Lumber Company. By 1900 or so, settlement had led to development of a wagon road the entire length of the valley from the Rogue River to Bitterlick Creek.

Place-names that commemorate some of the early settlers include: Alco Creek, Willitts Ridge, Miller Mountain, Swanson Creek, Ragsdale Butte, Morine Creek, and Hall's Point.

Like their native predecessors, Elk Creek Valley settlers customarily burned the foothills and upland range areas regularly. Major purposes included improving the browse for game animals and maintaining grassland for livestock. Elk seem to have been hunted out from the watershed by the later years of this period. Very small-capacity, family-run sawmills operated in the Valley during this period, cutting pine lumber. The watershed's sugar pines were a target of shake-makers; large-diameter sugar pines had probably become extremely rare in the lower hills by 1900.

Water for irrigation was crucial for settlers' gardens and pastures. Small-capacity ditches proliferated during the 1890s. According to the 1919 Jackson County State Circuit Court's "Rogue River Decree," the earliest recorded water rights on Elk Creek had priority dates of 1880 (for a trickle of 0.05 second-feet off Alco Creek) and 1886 (two separate withdrawals from Sugar Pine Creek [then called "West Fork"] for a total of less than 1 second-foot). Most priority dates for Elk Creek water date between 1894 and 1907, reflecting the sequence of the Valley's agricultural settlement. By 1908 the total amount of water (from Elk Creek and its tributaries) legally committed for irrigation diversions totaled just over 9 second-feet. The major ditches of the Valley (starting at the lowermost point and moving generally north) were: Johnson Brothers ditch, Sturgis and Pearce ditch, Holmes Brothers ditch, Cliff Rock ditch, Pence ditch, Trusty ditch, Heckathorn ditch, DeCarlow ditch, Alco (Sandoz) ditch, Morine ditch, Moore ditch, Geary ditch, Swanson ditch, and Bailey ditch. All but two of these (Johnson Brothers and Pence ditches) carried less than 1-second-foot of water each.

Although the volume of water diverted was comparatively small (and virtually all of it was diverted during periods other than when major spawning runs were in progress), Elk Creek irrigators may have had negative impacts on the local salmon population. Probably few if any early ditch intakes were screened, and salmon fry likely entered the ditches and eventually became fertilizer on flood-irrigated alfalfa fields. Chinook and silver salmon were plentiful enough on Elk Creek around the turn of the century that "great numbers" of them were harvested annually. Valley residents (and their neighbors from along the Upper Rogue) camped at the mouth of Flat Creek each year to catch and can the fish. With growing concern over the dwindling salmon population of the Rogue River basin, H. D. Hume (the "Salmon King of the Northwest," who operated a major cannery at the mouth of the Rogue) hired local resident J. H. Pankey to build a fish hatchery at the confluence of Elk Creek and the Rogue in 1897. Hume soon donated the facility to the U.S. Fish Commission, which ran the "Elk Creek hatchery" for a number of years during the early twentieth century. The hatchery demanded additional water withdrawals from Elk Creek to fill the tanks, and wooden dams were built along the lower creek and across the mouth of Sugar Pine Creek.

Some years, people's concerns were "too much water" rather than not enough. The great flood of 1890 laid waste to many Elk Creek Valley fields, stripping them of topsoil, cutting new channels, and leaving behind piles of boulders and other debris. The 1890 flood's impact in the upper watershed, although not recorded, probably included landslides and significant changes to streamcourses.

Overall, human effects on the watershed during this period were concentrated in the narrow valley floor and the adjacent foothills (irrigation withdrawals, clearing of vegetation, timber harvest), although grazing began to affect the highcountry meadows. Fire continued to be used as a vegetative management tool, in ways generally similar to native practises.

4. Expanded Use and Federal Land Management (ca. 1905–1940)

The upper portions of the Elk Creek watershed were proclaimed as a Forest Reserve in 1893, but Forest Service management did not begin until 1906. In 1916, much of the remaining former Oregon–and–California Railroad land grant was "revested" to the federal government. (Management of these "checkerboard" lands in the lower watershed passed from the General Land Office to the O–and–C Lands Administration in 1937 and to the Bureau of Land Management in 1946.) During the early Forest Service period, federal land management activities within the watershed consisted largely of fire detection, fire suppression, trail (and by the late 1930s, road) development, as well as control over grazing.

Some additional settlers arrived in the uppermost Valley to claim lands under the 1906 "Forest Homestead Act," but few of these speculative land claims went to patent. The wagon road extended northeast to the Persist vicinity by 1910. Elk Creek Valley residents were merely one small group of people who hoped to benefit from the proposed "High Line Canal." This proposal, publicized and promoted heavily around 1908–1912, was planned as a large diversion of water from the Rogue River near Prospect. The canal would have extended around the slopes of the Elk Creek watershed, eventually bringing water for irrigation and hydropower to as far away as Grants Pass. Elk Creek farms would have been able to tap the upper section of the ditch; however, the project never went beyond the survey phase.

Another outgrowth of southwestern Oregon's early twentieth-century boom years was construction of the Rogue–Elk Hotel by the McDonald family. Built near the mouth of the creek, this establishment was meant to benefit from the increased number of tourists traveling to Crater Lake along the new state highway. (Although the hotel never prospered, overnight guests during the 1920s reportedly included Zane Gray and Herbert Hoover, who fly-fished the eddies and holes of the Rogue.) More substantially, the period between 1905 and the early 1920s witnessed increased and more diverse uses of the watershed, among them mining, hydroelectric power distribution, and grazing. Additionally, Prohibition encouraged the spread of illegal moonshine stills in remote sections of the watershed during the 1920s and early 1930s.

Deposits of low-grade gold ore were first discovered in upper Elk Creek watershed in the late 1890s. Although a number of scattered prospects were explored (e.g., the "Apollo Mine"), only the "Elk Creek Mine" (also known as the "Buzzard Mine") was developed to any significant degree. Peter and Mark Applegate sold the claims to the Pearl Mining Company, which extended the Elk Creek Road up the ridge between Swanson Creek and Elk Creek to the mine and shipped the first ore in 1909. Between that year and 1918, the mine produced \$24,000 in gold, silver, and lead from the over 4,000 feet of underground excavations in the volcanic breccia deposits. Spurred on by the high gold prices of the 1930s, the McDonald family expanded the mine (renamed by them the "Alsarena Mine") and installed a ball mill (capacity: 100 tons per day) and other equipment. The operation employed a small crew of miners (who bunked at the site) until the War Production Board halted all gold mining during World War II.

The California–Oregon Power Company (COPCO) completed its main inter-tie powerline from the Prospect powerhouse to the Roseburg area in the early 1920s. The line passes northwesterly across the middle of the Elk Creek watershed. Private lumber interests proposed construction of a logging railroad up the Rogue River and into the headwaters of the Elk Creek drainage; as with the High Line Canal, nothing actually came of this idea. (During this period the very small Hays sawmill operated in the Elk Creek Valley, producing rough-cut boards for local consumption.) An unwanted form of water power occurred during the winter of 1927, when another "100-year" flood swept the Valley, causing substantial damage.

Grazing increased during the First World War, particularly along the Rogue–Umpqua Divide. Although a few sheep may have been driven to the Elk Creek range during the late nineteenth century, cattle were the major (and typically, the only) kind of commercial stock found in the upper watershed. (This contrasts with other sections of the Rogue–Umpqua Divide to the northeast, where sheep remained dominant through the 1930s). With high beef prices during World War I, the number of head grew. Forest Service records from the 1930s indicate that both O–and–Cands and National Forest lands along the Divide were in bad condition from overgrazing.

Initially the Forest Service administered its portions of the watershed from a ranger station at Trail. By 1915 a seasonal guard station was built near the Rogue–Umpqua Divide on upper Sugar Pine Creek. A telephone line reached the guard station and another line went up Elk Creek and over the Buck Basin divide to a guard station at Woodruff Meadows. During the severe fire year of 1910, the Buck Basin fire burned several thousand acres of the upper watershed, and another fire consumed almost two–thousand acres of brush and light timber on the east–side foothills of the Valley. Forest Service rangers lamented that most Elk Creek settlers were "advocates of light burning and not dependable for fire suppression." After the fire, a lookout on Hall's Point was staffed periodically during extreme fire seasons.

During the Great Depression, a Civilian Conservation Corps camp operated for a brief period at the mouth of Sugar Pine Creek. These and other CCC companies fought fires, built trail, and extended the road up Elk Creek and over Buck Basin divide to the Woodruff Meadows area. They also built fire lookouts at Butler Butte, Burnt Peak, and Buck Rock. By 1937, the Forest Service road system connected the upper watershed with the Umpqua side of the Rogue–Umpqua Divide at Huckleberry Lake; the road passed along the north side of the Divide between that point and Elkhorn Peak to the west, eventually reaching the Tiller Ranger Station. Crude roads also ascended lower Sugar Pine Creek and Hawk Creek during the 1930s. Forest Service "Ribes Eradication" crews worked throughout the decade in the Alsarena Mine area, grubbing out currant and gooseberry bushes in a vain effort to halt the spread of blister rust disease among sugar pine and western white pine. Over 5,000 acres of the upper watershed were subjected to at least two phases of blister rust control work.

As the Rogue Valley entered an economic boom period after the turn of the century, the Elk Creek watershed saw a number of changes, from scattered mining to increased grazing and road–building. However, it was the Forest Service's campaign to suppress rather than use fire--a campaign that had begun to succeed well before the end of this period--that represented the most dramatic change in resource–management patterns.

5. World War II and After (1940–1980s)

By 1940 the timber resources of the entire Elk Creek watershed had been barely touched by the axe. Local settlers had indeed taken many mature pines during the previous decades, but overall their cutting of the forest was negligible. The high lumber demands of World War II--and especially the post–War housing boom--changed this situation dramatically.

In the late 1930s, four small–capacity mills at Prospect operated entirely on private timber. And in the Elk Creek Valley, one tiny mill (7MBF annual cut) located just above Alco Creek did the same. (Large–scale timber harvest in the upper Rogue River basin during these years was concentrated around Butte Falls.) In 1940 the land ownership pattern of the watershed meant that the bulk of its timber was under federal control (National Forest and O–and–Cands). Of the privately owned lands, about 15,000 acres were held by the Elk Lumber Company, about 3,000 by the Stanley Dwinell Company, and the remainder divided among small ownerships.

The McGraw–Collins Lumber Company began cutting private timber in the lower watershed during the early 1940s, hauling the logs by truck to mills in the Rogue Valley. Not until the early 1950s, however, did O–and–Q (BLM) and Elk Lumber Company lands of the lower watershed begin to become roaded and harvested as part of a region–wide push into the mixed–conifer stands of southwestern Oregon. Much of this logging was done with crawler tractors that followed the ridge–crest spines of the watershed to large–diameter Douglas–firs and ponderosa pines, yarding the logs back down the ridge to the end of the nearest road. Haul roads accessed Elk Lumber Company lands along Button Creek and Brush Creek in the early 1960s. In 1965, Boise–Cascade Corporation purchased Elk Lumber Company's timberlands, as well as its large mill (built in 1947) in the Rogue Valley. During the late 1960s and 1970s, new BLM roads penetrated throughout the headwaters of West Branch Creek (on the west side of Alco Rock ridge), Morine Creek, and Flat Creek.

Harvest of the higher–elevation and less–accessible National Forest timber of the watershed did not get underway (aside from several isolated units along the CCC road to Huckleberry Lake and near Abbott Prairie) until the 1960s. (During the 1950s, nearby Forest Service timber sales concentrated in the Sunshine Creek/McCall Creek drainages just east of the Elk Creek divide.) The 1962 Columbus Day windstorm, which blew down millions of board feet of timber in the upper Rogue basin, apparently had a substantial effect in the upper Elk Creek watershed. During the early 1960s a plethora of new roads were surveyed into the formerly remote area, drawn there by the volume of windthrown and standing timber. By 1970, many of these roads had been built—up Bitterlick Creek, up Sugar Pine Creek, over Goodview Point to Neal Camp Burn, and elsewhere. During the late 1960s and through the 1970s, National Forest timber from the Elk Creek watershed became an important component of the Rogue River National Forest's overall "assigned sale quantity." By 1980, a relatively dense system of Forest Service roads wound through the headwaters of Elkhorn Creek and Sugar Pine Creek, accessing stands of Shasta red fir/noble fir. Between this new road system and the old CCC–generated road network to the east of Swanson Creek lay a remnant unroaded drainage, designated the "Bitterlick Roadless Area."

Two arson–caused fires burned over 300 acres in the upper Elk Creek drainage during the early 1950s. The largest of the two consumed timber and brush near the Al Sarena Mine, apparently including portions of the 1910 Buck Basin Burn. With increased road density most subsequent fires were quickly contained. During the extreme fire year of 1987, however, lightning–set fires near Burnt Peak and elsewhere grew to "class D" size because most available fire–fighters and air tankers were needed elsewhere in the region.

The flood of 1964 was noteworthy for the damage inflicted in the Rogue Valley and elsewhere. Although the flood's impact within the Elk Creek valley was probably substantial, most public attention focused on the more dramatic results downstream: bridges destroyed, highways washed out, and so on. (In addition, because road–building had not yet begun within the watershed's higher elevation forestlands to any significant extent, the damage in economic terms was far less than it would have been otherwise.) Already approved in concept by Congress, the massive Rogue Basin flood–control project (which included a proposed dam just above the mouth of Elk Creek) received a "shot in the arm" from the 1964 flood (followed by a less–severe but still notable flood ten years later). Construction of the Elk Creek Dam, with a Japanese firm awarded the general contract, began in the mid–1980s. Many properties in the lower Valley were condemned and purchased, the land was cleared of houses and other buildings, and several miles of expensive side–slope highway were built above the pool–level of the reservoir area. Much of the rock for the dam was obtained from one of the large outcrops of resistant volcanic rock on the east side of the Valley. With the massive earth/rock–fill structure taking shape in 1988, environmental organizations (concerned about the dam's potential effect on the Rogue's dwindling salmon population) succeeded in halting further work by court order. Elk Creek Dam, at least given

current political and economic directions, will probably never be completed. In terms of environmental policy, the Elk Creek Dam episode is truly a key, "watershed" historical event on a national scale.

The past few years have seen another watershed event: the sudden downturn in timber harvest levels from the Elk Creek watershed--a dramatic drop from the high volumes harvested between the end of the 1981 "housing recession" and the 1991 court-ordered halt in federal timber harvest within the range of the northern spotted owl. Considering only the National Forest portion of the watershed, the 1980s were the years of by far the heaviest cutting in the Elk Creek drainage. (By this period, private lands within the watershed had already been harvested of most of their mature timber.)

Between 1982 and 1989 (based on data from 5-year action plan records for the period), the Rogue River National Forest put up for sale over twenty separate timber sales within the Elk Creek watershed. The harvest units of these sales aggregated to over 6,000 acres. Clearcut and shelterwood harvests, logged by means of skyline cable systems, were by far the major silvicultural prescriptions on these sales. The total volume of National Forest timber alone sold from Elk Creek during this seven-year boom period was approximately 156 million board-feet. Accounting for the fact that only a small portion of the Rogue River National Forest is located within the Elk Creek watershed, as well as for the fact that the average "annual allowable cut" for the entire Forest during these years was about 200 million board-feet, the contribution of Elk Creek timber to meeting the Forest's timber targets was indeed substantial.

Ironically, decades of fire suppression have resulted in the proliferation of dense stands of young Douglas-fir and white fir throughout the middle elevation of the watershed during this period of heavy timber harvest. This situation has increased the drought stress on many of the remaining mature trees, pines especially, leading to increased mortality--visible during the early 1990s in the form of the many "red-top" trees that dotted Elk Creek watershed's slopes and ridges.

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